Josh Stein
Governor

Pamela B. Cashwell
Secretary, DNCR

Misty Franklin
Director, NC Natural Heritage Program

Regular Meeting of the Natural Heritage Advisory Committee

November 20, 2026 Agenda

Remote participation: Contact natural.heritage@dncr.nc.gov for Teams meeting link.

In-person meeting location: Nature Research Center Room 4508 (121 West Jones Street), Raleigh NC

Documents to be discussed during the meeting will be accessible online at:

https://www.ncnhp.org/events

NHAC Members: Jeff Marcus (chair), Jay Leutze, Kevin Melvin, Lee Leidy, Kim Brown, Jocelyn Wilson, Brian Byfield, Sue Cameron
Absent: Alan Weakley

NHP Staff: Misty Franklin, Scott Pohlman, Laurie Hamon (recording minutes)

DNCR Staff:
Deputy Secretary Jeff Michael,
Division of Land and Water Stewardship Director Will Summer,
Assistant General Counsel Zoe Hansen Burnet, Jessica Winebrenner
NC Land and Water Fund Stewardship Manager Justin Mercer

10:00 AM Call to Order and Reading of Ethics Reminder – Jeff Marcus, Chair

In accordance with the State Government Ethics Act, it is the duty of every Natural Heritage Advisory Committee member to avoid both conflicts of interest and appearances of conflict. Does any Natural Heritage Advisory Committee member have any known conflict of interest or appearance of conflict with respect to any matters coming before the Natural Heritage Advisory Committee today? If so, please identify the conflict or appearance of conflict and refrain from any undue participation in the particular matter involved.

Land Acknowledgement – Jeff Marcus, Chair

As we gather to discuss wise stewardship of critically important properties in NC, we gratefully acknowledge the Native American peoples who were the original stewards of these lands. We pay our respect to those past,

present, and emerging people who have been custodians of these lands and waters.

Welcome, Introductions, and Logistics: NHAC, DNCR, NHP

- Department of Natural and Cultural Resources Updates
- Division of Land and Water Stewardship Updates: NC Land and Water Fund Executive Director and Division Director Will Summer
- NHP updates, special projects, ongoing priorities: Misty Franklin

01 Review Agenda for Additions and Deletions – All

02 Review Previous Meeting Minutes – All

Dedicated Nature Preserve Overview (Scott)

Management proposals or potential amendments to remove property

03 Eno River Diabase Sill amendment for Snow Hill intersection

New Dedications and amendments to add property:

04 Needmore Game Land DNP amendment

05 Holly Shelter Game Land (pending review)

New Registries

06 Schulkens Savanna (Raccoon Silva, LLC)

07 Cypress Creek Bay (Raccoon Silva, LLC)

Other Topics

2027 Meeting Dates:

February
May 19-20 – Haw River State Park
August
November

Adjourn

Josh Stein
Governor

Pamela B. Cashwell
Secretary, DNCR

Misty Franklin
Director, NC Natural Heritage Program

Regular Meeting of the Natural Heritage Advisory Committee

May 20, 2026 Minutes

In-person meeting location: Wildacres Retreat Center, Little Switzerland NC

Documents discussed during the meeting were accessible online at:
https://www.ncnhp.org/events

NHAC Members: Jeff Marcus (chair), Jay Leutze, Kevin Melvin, Lee Leidy, Kim Brown, Jocelyn Wilson, Brian Byfield, Alan Weakley, Sue Cameron

NHP Staff: Misty Franklin, Scott Pohlman, Michael Schafale, Jess Schaner, Solea Lubinski-Shippert

DNCR Staff:
Deputy Secretary Jeff Michael
Deputy Secretary Deans Eatman
Division of Land and Water Stewardship Director Will Summer
DNCR Legal: Zoe Hansen Burnet, Jessica Winebrenner,

9:00 AM Call to Order and Reading of Ethics Reminder – Jeff Marcus, Chair

In accordance with the State Government Ethics Act, it is the duty of every Natural Heritage Advisory Committee member to avoid both conflicts of interest and appearances of conflict. Does any Natural Heritage Advisory Committee member have any known conflict of interest or appearance of conflict with respect to any matters coming before the Natural Heritage Advisory Committee today? If so, please identify the conflict or appearance of conflict and refrain from any undue participation in the particular matter involved.

- Lee Leidy will recuse from projects with NC Coastal Land Trust involvement: Bertie County Game Land and Gull Rock Game Land.
- Jeff Marcus will recuse from projects with TNC involvement: Carvers Creek State Park and Holly Shelter Game Land

Land Acknowledgement – Jeff Marcus, Chair

As we gather to discuss wise stewardship of critically important properties in NC, we gratefully acknowledge the Native American peoples who were the original stewards of these lands. We pay our respect to those past, present, and emerging people who have been custodians of these lands and waters.

Welcome, Introductions, and Logistics: NHAC, DNCR, NHP

- Department of Natural and Cultural Resources Updates: NCDNCR Deputy Secretary Jeff Michael and Deans Eatman
    - Have hired new director of NC Zoo, Dr. Mark Penning. Dr. Penning is the former vice president of Animals, Science and Environment for Disney Experiences.
    - Fort Fisher Aquarium is closing after Memorial Day weekend to allow for renovation and expansion.
    - Prairie Ridge broke ground on new indoor education center
    - Dr. Roland Keys, a mammologist from the NC Museum of Natural Science, is retracing the original route of Lewis and Clark to see how animal populations have shifted over the last 250 years.
    - All DNCR sites impacted from Hurricane Helene are now open. Some amenities, such as the Profile Trail at Grandfather Mountain remain closed.
    - The General Assembly is in session and they seem to have identified a path forward to resolve budget impasse. Updated revenue forecast has been released, and more funding than anticipated is forecasted to be available.
    - It has been proposed that the Conservation Tax Credit be extended for 4 years.

- Division of Land and Water Stewardship Updates: NC Land and Water Fund Executive Director and Division Director Will Summer
    - 154 grant applications have been submitted for the 2026 LWF cycle. NHP staff are currently reviewing.
    - Conservation Tax Credit – Certified projects for 2025 total 4,100 acres protected which is valued at over 30 million. Credit is only for 25% of that value. Actual cost to taxpayers is $5 million, which is the current program cap.

- NHP updates, special projects, ongoing priorities: Misty Franklin
    - Field biologists are busy visiting NCLWF application sites. This year 8 field biologists are visiting 58 applications.
    - NCNHP staff Jess Schaner, Katherine Culatta, and Mike Schafale are leading a workshop for the NC Association for Environmental Professionals next week. The focus is training environmental consultants in identification of Threatened and Endangered species as well as natural communities.
    - New field biologists hired through USFS agreement - 6 new staff have recently started: 3 botanist/ecologists, 1 aquatic macroinvertebrate biologist, 1 terrestrial invertebrate ecologist, and 1 project manager. If you know sites on the Pisgah or Nantahala National Forest that could use NHP survey to aid in USFS planning, please let us know. The goal of the work is documenting impacts from Hurricane Helene and providing information to guide recovery/restoration work.
    - Surveys of pending DNPs and reviewing proposed management to DNPs is ongoing.

01 Review Agenda for Additions and Deletions – All: No additions or deletions.

02 Review Previous Meeting Minutes – All: No edits or changes. Jay moved to approve; Kevin seconded. No discussion. Approved unanimously via roll call vote.

Dedicated Nature Preserve Overview (Scott)

- Similar to conservation easements utilized by land trusts, Dedication is an agreement attached to the land. It is perpetual and cannot be rescinded by the owner.
- Requires approval of landowner, DNCR Secretary, Council of State, and Governor. Includes specific management rules.
- Dedicated Nature Preserves often have zones, including Primary Area, Primary (Restoration) Area, Special Management Area, and Buffer Areas, depending on site-specific conditions.
- State dedications require letter of allocation from State Property Office. For other lands, the dedication is recorded with deed.
- For state lands, standard riparian zones are included in Primary areas: 100 feet along all perennial streams; 300 feet along perennial streams with NHP Aquatic Habitat; 200 feet along perennial streams that are tributaries to NHP Aquatic Habitat with federally listed aquatic species.

New Dedications and amendments to add property (Scott):

03 Gull Rock Game Land (NC Wildlife Resources Commission)

- Hyde County
- Spencer Bay section: NC Land and Water Fund (NCLWF) grant acquisition, addition of 2,736 acres to primary, including 18 acres restoration; 182 acres buffer.
- Element occurrences include Brackish Marsh, Marsh Hammock, Little-spike Spikerush (Eleocharis parvula), and Bald Eagle (Haliaeetus leucocephalus).
- Impoundment not included in dedication.
- Separate potential amendment to the dedication allowing non-emergency pumping of water onto the Alligator River segment of the preserve. This was tabled from last meeting.
- 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.”
- The Burrus Canal project proposes to redirect drainage water from Lake Mattamuskeet onto the DNP.
- Monitoring of the impacts of the pumping will be done by researchers from East Carolina University (ECU)
- New language proposed since February 2026 Advisory Committee meeting--pumping would automatically cease in 5 years unless impacts are negligible and all parties agree to renew. Easements will be subordinate to dedication.
- Jay – Why 5 years -- this seems arbitrary?
- Mike – 5 years is a reasonable amount of time to be able to detect impacts, also considering sea level rise will become a factor in time.
- Jeff Marcus - Have indicators of negative impact been identified? What should ECU be monitoring? What are we monitoring and what is the threshold?
- Mike and Scott – Planning for this has been described in the Exhibit and researchers at ECU has been in conversation with NHP.
- Jeff Marcus – Does ECU have funding for 5 years of monitoring?

- Margaux – Yes, additional funding for monitoring is lined up.
- Jeff Marcus – Would like to add “negative” in front of impacts to revised Dedication language. (“The NC Wildlife Resources Commission shall complete a multi-party agreement requiring that pumping cease five years from date of pumping station installation [or completion of road modifications] unless and until the Hyde Drainage District, Wildlife Resources Commission, and Natural Heritage Program mutually agree that negative impacts to the preserve from pumping are negligible, and pumping can continue.”)
- Jeff Marcus – Why exclude impoundment rather than include as special management area?
- Scott – Artificial management, in past have not sought to dedicate places like this.
- Mike – Heavily altered, and no rare species.
- Jeff Marcus moved to accept revision to dedication language as proposed with addition of “negative” in front of impacts, Jay seconded. No further discussion. Passed unanimously by roll-call vote (Lee recused).

04 Bertie County Game Land (NC Wildlife Resources Commission)

- Adds 173 acres (NCLWF grant 2022-068) - all Primary, including 85 acres Restoration
- Element occurrences include: Catchfly cutgrass (Leersia lenticularis) and Tidal Swamp (Cypress—Gum Subtype) – S4/G3
- Sue moved to accept, Brian seconded. No further discussion. Passed unanimously by roll-call vote (Lee recused).

05 Holly Shelter Game Land (NC Wildlife Resources Commission) – Pending WRC review

- Jay chaired this item, as Jeff Marcus recused.
- Amendment to add tract associated with Climate Pollution Reduction Grant which adds 15,800 acres to DNP, all Primary (Restoration).
- Large area of peatland pocosin. Water level dropped due to past ditching and impacted by wildfires. Goal is to re-wet peat soils and reduce risk of catastrophic wildfire.
- Associated MOU for WRC stewardship of hydrologic restoration and maintenance of water control structures.
- Pending WRC approval; agreement will be brought back to committee if there are any significant changes.
- Jay – Any potential downsides of approving now?
- Misty – We don’t see a downside. The Commission will also review at their next meeting and so wanted to get NHAC preliminary thoughts. We may call a special meeting if significant changes are needed
- Jay - Novel to manage large tract of land for climate abatement/carbon storage—but no objections.
- Misty and Scott – Peatland restoration in NC is gaining momentum with TNC and WRC leading; work is already complete at nearby Angola Bay Game Land, and TNC has partnered with USFWS at Pocosin Lakes and Great Dismal Swamp Wildlife Refuges on similar projects to rewet peat soils. At Holly Shelter, WRC has contracted with NCNHP to do restoration monitoring plots to gather baseline information on soil and vegetation before and after treatment.

- Mike – It will be a nature preserve not just a carbon sink. Goal is to manage for natural conditions. Water is deeper near water control structure—some places will be too wet, while others will not be as wet as they were prior to ditching , but overall still a worthwhile improvement.
- Jay – Should we wait to bring to vote?
- Alan – Supports moving forward, to signal a support for DNP and the restoration effort.
- Sue – Asked for more details of restoration.
- Mike – Control structures will go in ditches along roads on eastern and western side. Interior black lines on map are not structures but are inferences of how water levels will be changed. Site is not currently intensively ditched, ditches are only along roads.

- Sue moved to accept contingent on WRC approval, Kevin seconded. No further discussion. Passed unanimously by roll-call vote (Jeff Marcus recused).

06 Historic Bethania (Dept of Natural and Cultural Resources)

- Relatively young, disturbed forest. Only riparian zones are recommended for dedication.
- Adds 3 acres - all Primary - to 77 acre DNP.
- Jay – Who is the owner?
- Scott – State (NCDNCR) is owner, but Town of Bethania is the onside manager and secondary custodian of DNP. Bethania is designated as an Historic District, but is not a state-managed State Historic Site.
- Kim moved to accept, Alan seconded. No further discussion. Passed unanimously by roll-call vote.

07 Pineola State Natural Area (NC Division of Parks and Recreation) – Pending DPR review

- New Dedication. Total DNP 15.5 acres (all Primary). Numerous element occurrences in high-quality mountain bog.
- 2 small properties are being dedicated to fulfill terms of NCLWF grant agreement, plus voluntary acreage (NCNHP asked NCDPR to dedicate more of the natural area).
- NCDPR has noted that a Dept of Transportation (DOT) access easement crosses the proposed DNP area connecting to a private parcel and to the river. NCDPR is requesting that we do not dedicate this portion for now. NHP and DPR may request that DOT extinguish the easement in the future.
- Brian – How should we contact DOT to get more info about the road easement?
- Scott – It may be possible to have a donated mini grant to cover the cost of extinguishing the easement; haven't investigated yet.
- Misty – May be able to use mitigation credits as incentive to extinguish easement.
- Scott – Should we move forward or wait until more information on DOT easement?
- Sue – Why is there a DOT easement down to the river?
- Jeff Marcus- Should we table this until we have a conversation with DOT or move to approve?
- Kevin – Lets keep momentum going.
- Alan – Supports moving forward.

- Alan moved to accept, Lee seconded, contingent on DPR approval. No further discussion. Passed unanimously by roll-call vote.

08 Carvers Creek State Park (NC Division of Parks and Recreation) – Pending DPR review

- Sue chaired this item, as Jeff Marcus recused.
- Cumberland County, close to Ft Bragg.
- Adds 29 acres to DNP, all Primary including one-acre Special Management Area.
- Rare animal breeding habitat along a pipeline right of way.
- Alan – Why no Primary Restoration? Property appears forested on aerials.
- Mike – Lacks wiregrass, not readily restorable.
- Alan - Areas that are not dedicated could become great over time—but understand restrictions.
- Jay – Is this a satellite unit of park or is there growth planned in certain directions?
- Scott – Potential to grow in some directions, but it is limited.
- Jeff Marcus - A lot of development pressure in area.
- Jeff Michael – This is a relatively new state park, still in planning process and trying to balance recreation and natural resources protection.
- Mike – Lafayette tract is being considered for more developed park facilities, such as campgrounds. The property is in worse shape ecologically. Could be restored, but groundcover is degraded, would need to plant wiregrass.
- Jay moved to accept contingent on NCDPR approval, Kevin seconded. No further discussion. Passed unanimously by roll-call vote (Jeff Marcus recused).

09 Occoneechee Mountain State Natural Area (NC Division of Parks and Recreation) – Pending DPR review

- Morton tract being added - Adds 7.5 acres, all Primary.
- Additional adjacent acreage would qualify for dedication, and NHP proposed including steep slopes with rare natural communities and riparian zones along the Eno River. However, DPR declined to dedicate anything more than the NCLWF grant-funded parcel at this time.
- Brian – Any potential conflicts with DOT and future road widening?
- Mike – Road unlikely expand towards the DNP, as its very steep and rocky.
- Jay moved to accept pending approval of NCDPR, Sue seconded. No further discussion. Passed unanimously by roll-call vote.

New Registered Heritage Areas

10 Bluestem Cemetery – Pending landowner review

- Voluntary Registry Agreement of 32 acres.
- Protects known four-toed Salamander (Hemidactylium scutatum) habitat, several natural communities, as well as 100-foot riparian zones.
- Expect RHA to move forward without any changes.
- Registry language requiring 100 ft primary area along streams matches Bluestem policy for riparian zones.
- Brian – Is there a change in ownership likely?
- Scott – No, and the property is encumbered by a permanent conservation agreement

- Brian – Will burial happen in RHA?
- Mike – Uphill portions of forest are slated for burials. Burial sites have small footprint and are scattered. Seems like an acceptable level of disturbance. They have a quota for when cemetery is full and then will just be nature preserve. Mown fields are not included in Registry.
- Jeff Marcus - Bringing new, nontraditional entities into conservation is a positive thing—good project.
- Alan moved to accept pending Bluestem approval, Jocelyn seconded. No further discussion. Passed unanimously by roll-call vote.

11 Balsam Mountain Preserve – Pending landowner review

- Voluntary Registry Agreement of 1,068 acres in Jackson County.
- Balsam Mountain Preserve is a housing development with golf course and other amenities. They have an associated non-profit with environmental education staff who reached out to NCNHP asking about Registry.
- The underlying property that contains the housing development and other development is extensive, and also contains three natural areas which support several rare plants and some small patch natural communities.
- Balsam Mountain Preserve is encumbered by a North American Land Trust conservation easement. There have been issues with erosion and sedimentation from development activities there which have impacted rare plant populations, as well as important aquatic systems downstream.
- Jeff Marcus - Lots of potential for issues, do we have staff capacity for this?
- Misty – A Registry can be voided with 30 days notice if impacts occur that cause an area to no longer qualify.
- Jay - In favor of adding another layer of protection—a way of educating people in the community about the natural resource values, but many land trusts would never accept an easement like this (with so many inholdings excluded).
- Mike – Could help with monitoring the NALT easement, while monitoring the Registry.
- Alan – Why aren't other adjacent portions included (that appear undeveloped on aerials)?
- Scott – There are three landowners and only one is open to Registry, so some portions were not considered.
- Will – We are not taking on burden of monitoring from NALT.
- Lee – What about golf course and run-off, seems like many issues.
- Jeff Marcus – Values sufficient to warrant RHA, but could take too many resources of heritage staff? Consider it an FYI and decide later?
- Scott – We are working with employees of Balsam Mountain Preserve—they are talking to owners.
- Jay – By delaying, it shows BMP that it takes some work to approve RHA.
- Jeff Marcus—We could communicate concerns to BMP
- Alan – Withdraw the proposal now, rather than waste staff time?
- Jay – RHA doesn't require strong enforcement —supportive of it.
- Jeff Marcus - Does any committee member disapprove?
- Jay – 200 ft riparian buffers are pretty significant and would be good protection

- Scott – To clarify, BMP reached out to NHP to register NHNAs, and NHP staff proposed also including riparian zones to protect Tuckasegee Aquatic Habitat downstream.
- Sue – Worth giving it a try, stakes are low and can cancel if need be.

The decision was made to return the agreement to staff for further review and the Committee may consider the proposal at a future meeting.

Other Topics

Meeting Dates:

August 27 10 am

- Virtual meeting with optional in-person at Nature Research Center Room 4508 (121 West Jones Street), Raleigh NC.

November 20 at 10:00 am

Adjourn Kevin Melvin moved to adjourn, Jay Leutze seconded. Passed unanimously by roll-call vote.

Eno River Diabase Sill Plant Conservation Preserve
Dedicated Nature Preserve
STIP No. HE-0007D
Add a left turn lane and signals to Snow Hill and Old Oxford Roads intersection, Durham County

In 2010, qualifying portions of the Harrelson property at Eno River Diabase Sill Plant Conservation Preserve were dedicated under the Nature Preserves Act. The acquisition of the Harrelson property was partially funded by the Natural Heritage Trust Fund (Grant #200409402). The NC Land and Water Fund has since assumed responsibility for former Natural Heritage Trust Fund grants.

Project No. HE-0007D prepares Snow Hill Road and Old Oxford Road for increased traffic from development in the area by adding an exclusive left turn lane on Snow Hill Road and signalizing the intersection. The Improvements were determined to be needed by the Merck Pharmaceuticals Traffic Impact Assessment (TIA).

The preliminary engineering design for intersection improvement would directly impact the Eno River Diabase Sill Plant Conservation Preserve Dedicated Nature Preserve. The amendment request includes acquisition of permanent right-of-way, permanent utility easement, and permanent drainage and utility easement, as well as temporary construction easement for construction and erosion control, (see table 2 below, and figures 3, 4, 5). These rights-of-way and easement areas overlap the Primary (Restoration) Area of the dedication, and directly impact populations of rare plant species, including prairie blue wild indigo, Earle's blazing-star, and glade wild quinine. Information for these species is listed in table 1 below. Additional rare species in the immediate area include smooth coneflower (Echinacea laevigata), hoary puccoon (Lithospermum canescens), and prairie dock (Silphium terebinthinaceum).

Scientific Name	Common Name	Rank	NC Status	US Status
Baptisia aberrans	Prairie Blue Wild Indigo	S2G2	Endangered	
Liatris squarrulosa	Earle's Blazing-star	S2G4	Significantly Rare	
Parthenium auriculatum	Glade Wild Quinine	S3G3	Significantly Rare	

Table 1 Natural Heritage Element Occurrences within proposed project area and directly impacted, Eno River Diabase Sill Preserve NP

Katherine Culatta and Scott Pohlman participated in a 9 January 2026 state stakeholder meeting for the proposed project, which also included staff from Plant Conservation Program and NC Land and Water Fund. NCDOT communicated that the project has been narrowed to the extent possible (i.e. avoiding and minimizing impacts) but indicated that some portion of the dedicated area will be impacted, and understood that the dedication would likely have to be amended. NCDOT came to the meeting understanding the NCLWF compensation policy to make the public whole, including 3:1 ratio. NHP and NCLWF staff indicated that their respective boards have communicated preference for land exchange with like habitat. The process for amendment, and associated timeline, was also discussed. In addition to public hearing and public notice, review is needed by DNCR Secretary before the amendment can go to Council of State. NC Land and Water Fund Board and Plant Conservation Program Board will also review the proposal.

At the February 2026 Natural Heritage Advisory Committee meeting, the Committee recommended potential mitigation measures to achieve net overall conservation benefit, which could include:

- *Temporary relocation of plants, to be held by a qualified organization such as NC Botanical Garden off-site and replanted after the project (would require funding to NCBG, translocation during dormant seasons).*
- *3:1 land exchange for nearby parcel with similar habitat along the Eno River (several parcels nearby are currently for sale along Old Oxford Road with river frontage and similar natural communities).*
- *Remediation of ground to natural conditions, including:*
    - *natural topography*
    - *removal of invasive species*
    - *revegetation with native plants*
    - *replacement of native soil where possible (if soil needs to be temporarily moved for drainage, hold it on-site in "Buffer" area and then replace where possible / no replacement soil from off-site to fill holes and ditches).*
- *Understanding that PCP will continue to manage the nature preserve with prescribed fire in the future (after project completion).*

NCDOT requested amendment to the Articles of Dedication 5 August 2026, to provide easements for right-of-way, drainage and utilities, and temporary construction. Based on the public interest served by improvements to the intersection to safely handle increased traffic, and that the new use of the acres for permanent right-of-way, drainage and utility easements would not be consistent with public purposes served by the dedication, amendment would be required to remove a portion of the dedication. NHP staff determined that the impact would not fall within the authority of staff to

approve without Natural Heritage Advisory Committee review, due to the significance of associated element occurrences.

Estimated area	Proposed Use
0.142 acre	Permanent right-of-way
0.117 acre	Permanent utility easement
0.032 acre	Drainage and utility easement
0.176 acre	Temporary construction easement
0.467 acre	Total

Table 2 Proposed impacts to the dedicated nature preserve

The 5 August 2026 NCDOT amendment request notes that the project is nearing 75% design, and the environmental document is in process. Right of Way and easement acquisition for the project is anticipated to start in fall 2026. The project construction schedule is uncertain. The amendment request also states that complete avoidance of impacts to the preserve is not possible, but efforts to minimize impacts were made through design, including reduced lane widths (from 12 to 11 feet), reduced shoulder widths (from 8 to 3 feet), elimination of erosion control sediment basin (which would have resulted in greater temporary disturbance), and reconfiguration of erosion control clean water diversion from 30 feet to 15 foot nominal to reduce disturbance to the preserve. Proposed compensation is 1:1 financial mitigation fees for impacts to the preserve from requested easements. NCDOT will implement applicable standard BMPs during construction.

The 5 August 2026 NCDOT request for amendment did not account for impacts to rare plant populations, so no measures to reduce impacts to rare species are included for review. The proposed 1:1 financial compensation fell short of 3:1 land exchange with similar habitat.

At the 27 August 2026 Natural Heritage Advisory Committee meeting, the committee reviewed the request for amendment, and discussed at length. Among the topics discussed was the significant amount of work that has gone into enhancing the viability of the rare plant populations in the preserve by restoring habitat along Snow Hill Road and the interior of the preserve, including for Baptisia aberrans, Liatris squarrulosa,

Parthenium auriculatum, Echinacea laevigata, Lithospermum canescens, and Silphium terebinthinaceum.

Justin Mercer (NCLWF) noted that with public works-related amendments, as long as it has under one acre of impact or 5% of total protected area, it is possible to make decisions at staff level. They may accept 1:1 compensation if there are not significant impacts to the natural resources, but in this case they would have to elevate to Board for final decision. The ability to make staff-level decisions rests on the condition that PCP and NHP agree that impacts are being adequately mitigated. Committee member Weakley followed with the point that this is a significant conservation area, and the project has potential to have concerning impacts; the native soil chemistry and physical properties are important for the rare plants and natural community. Any offsite soil has a large possibility of bringing in invasives that would require management, and may not be ideal for the rare plants.

Other discussion points from the 27 August 2026 NHAC meeting discussion about 5 August 2026 DOT amendment request included the potential suitable nearby compensation parcels. Misty Franklin reported that the potential project mentioned earlier is not ready to move forward, and that perhaps 3:1 financial compensation would be feasible approach to make sure timelines are met. Committee chair Jeff Marcus summarized that it is useful to communicate to DOT that contacting NHP and NCLWF early in the process, and including minimization of lane and shoulder widths in design is greatly appreciated. However, the importance of the conservation area, the amount of past and ongoing investment in habitat management, and the fact that the project would directly remove area from a nature preserve where rare plants are growing argue against 1:1 compensation; also noted that improving traffic to facilitate development will increase challenge of managing the preserve with fire -- only making it more important to obtain contiguous land that can be managed as part of the preserve. The Committee acknowledged that is a very challenging intersection, with challenges in every direction, and asked NHP staff for their perspective; staff noted that NHP worked with partners to develop potential mitigation measures, and remain supportive of those measures. NHP Staff noted the desire for a collaborative approach, and wanted more discussion with DOT before submitting amendment to the Committee for consideration. The Committee did not move to amend the dedication.

On September 24, 2026, DOT consultant Bill Rice submitted a revised amendment request that provides 3:1 monetary offset in lieu of land exchange for areas with proposed new roadway easements, as well as payment for protected plant species transplantation. Also in the revised amendment request is remediation of the ground to natural conditions, including: natural topography; revegetation with native grass seed mix (species to receive prior approval from NC Plant Conservation Program); and replacement of the native soil where possible (no replacement soil from off-site). NCDOT will make efforts to avoid introducing invasive species as part of the

construction. A revised amendment request was submitted November 6, 2026 to clarify that protected plant species transplantation included payment to offset costs incurred by PCP for the temporary relocation of species they manage within the preserve that are listed on the NC Protected Plant List or rare, threatened, or endangered plants (as tracked by the Natural Heritage Program."



Figure 1 Project location, occurring at Pennys Bend entrance to intersection of Snow Hill Road and Old Oxford Road



Figure 2 Ownership of properties adjacent to proposed project

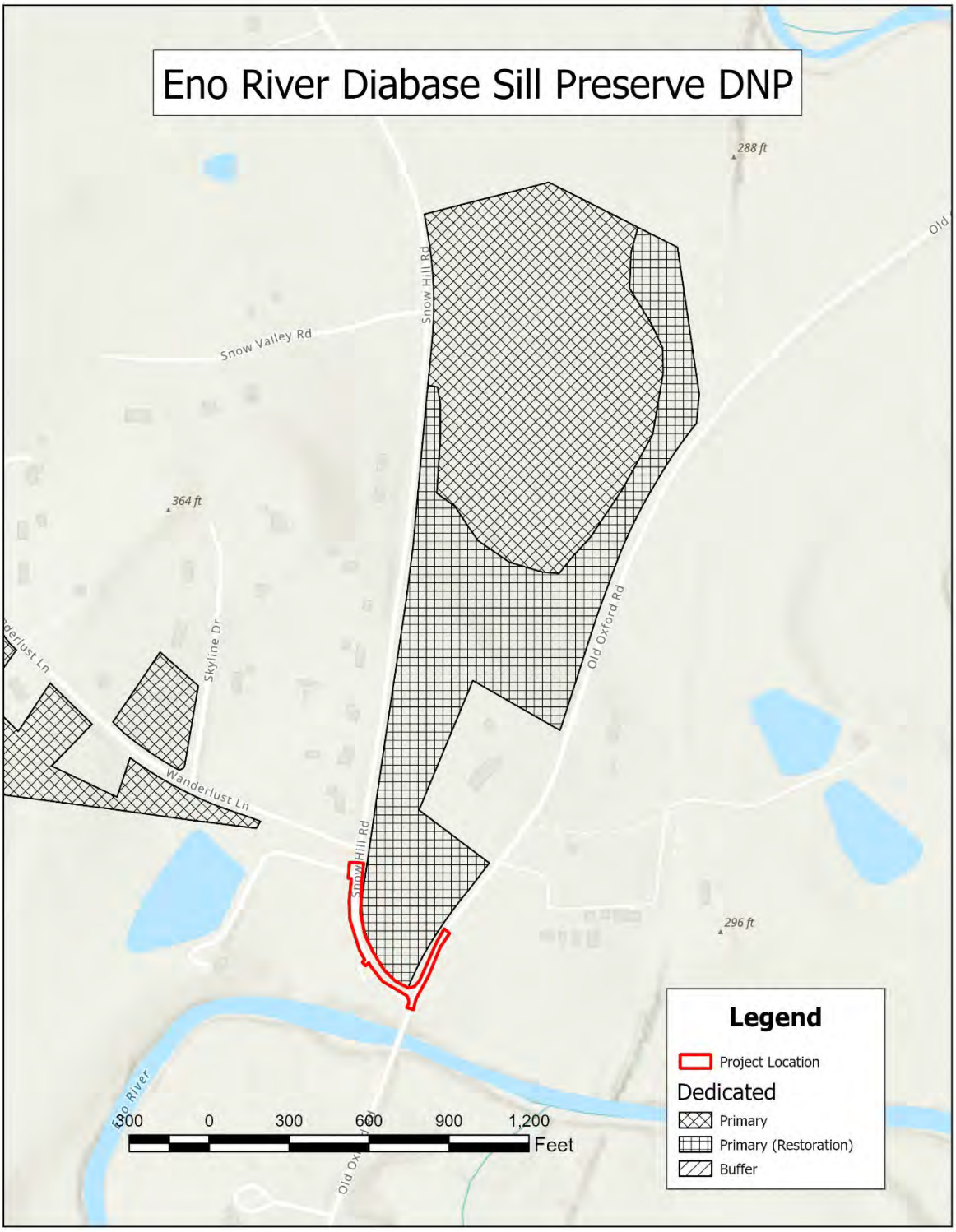


Figure 3 Project location and Eno River Diabase Sill Plant Conservation Preserve dedication zones



Figure 4 NCDOT Easement Request at Eno River Diabase Sill Preserve



Figure 5 NCDOT Easement Request at Eno River Diabase Sill Preserve

November 6, 2026

To: Justin Mercer
Stewardship Program Manager
North Carolina Land and Water Fund

From: Bill Rice, AICP, CEI
Principal Planner
Rice Inc.

RE: NCDOT STIP No. HE-0007D - Amendment Request to NCLWF Conservation Easement (NHTF Grant #200409402)

Rice Inc., NCDOT environmental consultant for the HE-0007D project, provides the information below in accordance with the guidance found in the *North Carolina Land and Water Fund Board Guidelines and Practices* (2025), under the Stewardship Program Guidelines and Practices section, Conservation Agreement Amendment Guidelines and Practices subsection (STW-001), Article V Amendment Request Requirements, items A. through G.

Item A - Name, Address, Phone Number, and Email of the Property Owner

North Carolina State Property Office
Tim Walton, Director
1321 Mail Service Center
Raleigh, NC 27699-1321

Phone: 984-236-0278
Email: tim.walton@doa.nc.gov

Item B. - Nature of the Activity Proposed to be Conducted

Project Characteristics

The project proposes to construct an exclusive left turn lane (LTL) on Snow Hill Road (SR 1631) that will route left turning traffic onto northbound Old Oxford Road (SR 1004). The project also proposes signalizing the intersection, and an exclusive right turn lane (RTL) will result from these improvements. (see Attachment A – General Roadway Improvements).

The project will require the acquisition of permanent: Right of Way (ROW), Permanent Utility Easement (PUE), Drainage and Utility Easement (DUE), and Temporary Construction Easement (E), from the Eno River Diabase Sill Plant Conservation Preserve Nature Preserve (preserve) for its completion.

The project is funded with economic development funding for four roadway improvement projects associated with the campus expansion of the Merck pharmaceutical plant at 5325 Old Oxford Road, which is approximately 3.2 miles north of the project site (see Attachment B – Related Projects).

At the time of this memorandum, the project is nearing 75% design, and the environmental document is in process. Right of Way and easement acquisition for the project is anticipated to start in fall 2026. The project construction schedule is uncertain since the project will be shelved after the completion of 75% plans, environmental document, ROW/easement acquisition, and utility relocation.

Project Right of Way and Easement Quantities

NCDOT Locations and Survey Unit calculated the proposed square footages and acres of ROW, PUE, DUE and E associated with the completion of the proposed project that are on the subject parcel of the preserve. Table 1 summarizes these quantities.

Table 1 – Right of Way and Easement Quantities

Unit of Measure	ROW	PUE	DUE	E	Totals
Square Feet	6,174	5,111	1,388	7,677	**20,350**
Acres	0.142	0.117	0.032	0.176	**0.467**
Source: Area calculations measured by NCDOT Locations and Survey Unit					

Item C. - Location of the Project, NCLWF Project Number and Deed Book/Page

The project is located approximately 5.75 miles north-northeast of downtown Durham in unincorporated Durham County at the intersection of Snow Hill Road and Old Oxford Road, immediately adjacent to the southernmost extent of the preserve.

The US Fish and Wildlife Services (USFWS), North Carolina Natural Heritage Program (NCNHP), North Carolina State Property Office, Natural Heritage Trust Fund (NHTF), and North Carolina Land and Water Fund (NCLWF) coordinated to preserve the 11.94-acre parcel of the preserve that is the subject of this amendment request. The subject parcel was acquired with partial funding from the USFWS and NHTF (Grant #200409402). The NCLWF has since assumed responsibility for all former NHTF grants.

In 2024, the subject parcel of preserve was dedicated by the NCNHP under the Nature Preserves Act (Part 42 of Article 2, Chapter 143B of the North Carolina General Statutes). Based on the parcel being partially acquired by USFWS, the project also requires coordination with USFWS for their approval of the ROW, PUE, DUE, and E areas to be acquired. The project development team has initiated this process with USFWS. The parcel is encumbered by a conservation agreement held by NCLWF, the details of which are presented below.

Table 2 – Conservation Easement Parcel Information

PIN	Parcel Owner	Type of Deed Restriction	Deed Book, Page	NHTF Grant #	Street Address
0844067410	North Carolina State Property Office	Conservation Easement	005594 / 00673	200409402	2801 Old Oxford Rd.

Item D. - Map

A map of sufficient detail to accurately delineate the boundaries of the preserve land proposed to be acquired for ROW, PUE, DUE and E to carry out the project, including the location and dimensions of any disturbance associated with the project, is included as Attachment C.

Item E. – Design Minimizations

Complete avoidance of impacts to the preserve is not possible if this project is to be constructed. Considering this, NCDOT coordinated early in the project's design process with the NCNHP to ascertain their concerns, and then tasked the project team with identifying design measures to minimize disturbances to the preserve.

The original design included two 12-foot-wide through lanes, an 11-foot-wide left turning lane (LTL), and 8-foot-wide shoulders on Snow Hill Road. The original design also included an erosion control sediment basin, erosion control fencing and clean water diversion that was proposed to be partially on the preserve. The following design changes were incorporated to minimize disturbances.

Design Minimization Measures

Reduced Lane Widths – The through lane widths were reduced from 12-foot-wide to 11-foot-wide.

Reduced Shoulder Widths – The shoulder widths were reduced from 8-feet-wide to 3-feet-wide.

Elimination of Erosion Control Sediment Basin – The sediment basin would have resulted in much greater temporary disturbance to the preserve until the end of the construction phase. It was entirely removed from the design and replaced with a clean water diversion (CWD) with a far smaller footprint.

Reconfiguration of Erosion Control Clean Water Diversion – The temporary CWD will disturb the preserve until the end of the construction phase. The CWD was reconfigured from its original 30-foot nominal width to an approximately 15-foot nominal width to reduce its disturbance to the preserve.

Compensation

While the preserve property is owned by the North Carolina State Property Office and was Dedicated as a Nature Preserve (DNP) by the NCNHP, it is operated by the North Carolina Department of Agriculture and Consumer Services (NCDA&CS), Plant Conservation Program (PCP). Hence, the mitigation compensation payments discussed below will be paid to the PCP.

Payment of Mitigation Fee – NCDOT will provide one payment to the PCP of a 3:1 monetary offset in lieu of a land exchange for areas within proposed ROW, PUE, DUE and E. This higher compensation ratio reflects the property's status as a DNP and important ecological value.

Payment for Protected Plant Species Transplantation – NCDOT will provide one payment to the PCP if, after surveys, PCP has determined there are protected species within the DNP that will be impacted by this project. This payment will offset costs incurred by PCP for the temporary relocation of species they manage within the preserve that are listed on the NC Protected Plant List or rare, threatened, or endangered plants (as tracked by the Natural Heritage Program). See the list: https://www.ncagr.gov/divisions/plant-industry/plant-protection/plant-conservation-program/protected-plant-list .

The payment will also include costs associated with plants to be held by a qualified organization, such as the North Carolina Botanical Garden (NCBG), off-site until replanted by PCP after the completion of the project.

If plants exist within the area of impact, funding to PCP would offset estimated costs associated with any temporary relocation, storage during construction and replanting efforts. Advanced coordination between NCDOT, PCP, NCNHP and NCBG will be necessary to ensure the transplant occurs during the dormant season.

Item F. – Best Management Practices

NCDOT will implement its applicable standard best management practices (BMPs) during construction. These BMPs will be carried out in compliance with NCDOT, state, and federal regulations. Proposed BMPs include:

Flagging and Staking - Disturbance limits will be flagged. ROW, DUE, PUE and E areas will be staked before construction activities.

Erosion and Sediment Control Measures – The erosion and sediment control measures discussed in Item E will be installed before any land disturbing activities to manage runoff.

Clean Water Diversion – The temporary CWD discussed in Item E will be installed before any land disturbing activities commence. Soil excavated for the installation of the CWD will be stored under a cover that is offset from the CWD, and will be used to backfill the CWD once the CWD is no longer needed. Any soil disturbed within the CWD area will be moved directly back into the cut from which it was removed.

Removal of Construction Phase BMPs - Erosion and sediment control measures and the temporary CWD will be removed at the end of the construction phase. Temporary easement areas will be revegetated using native grass seed mix.

Removal of Soil From Permanent Ditches – Any excavated material from within areas of permanent ditches will be hauled away and disposed of off-site.

Remediation of the Ground To Natural Conditions – The ground within any areas of temporary impact will be remediated to natural conditions, including: natural topography; revegetation with native grass seed mix (species to receive prior approval from PCP); and replacement of the native soil where possible (no replacement soil from off-site). NCDOT will make efforts to avoid introducing invasive species.

Prescribed Fire – NCDOT understands and acknowledges that PCP will continue to manage the nature preserve with prescribed fire in the future after project completion.

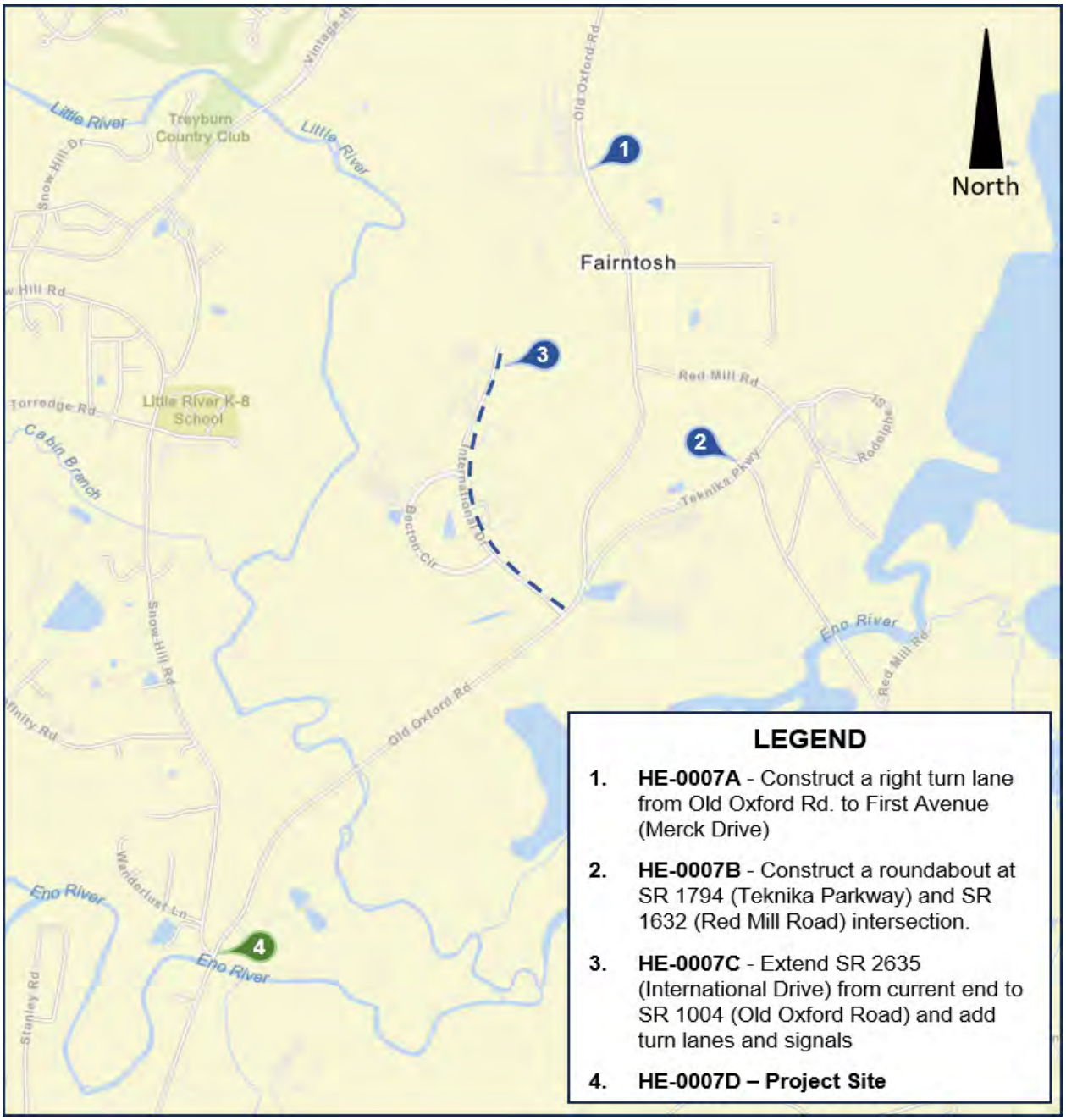
Item G. – Acknowledgement

NCDOT acknowledges that Rice Inc. has obtained a copy of NCLWF Board Guidelines and Practices (2025), which contains the Conservation Agreement Amendment Guidelines and Practices subsection (STW-001), and that this Amendment Request has been prepared in accordance with Article V items A. through G. of STW-001.

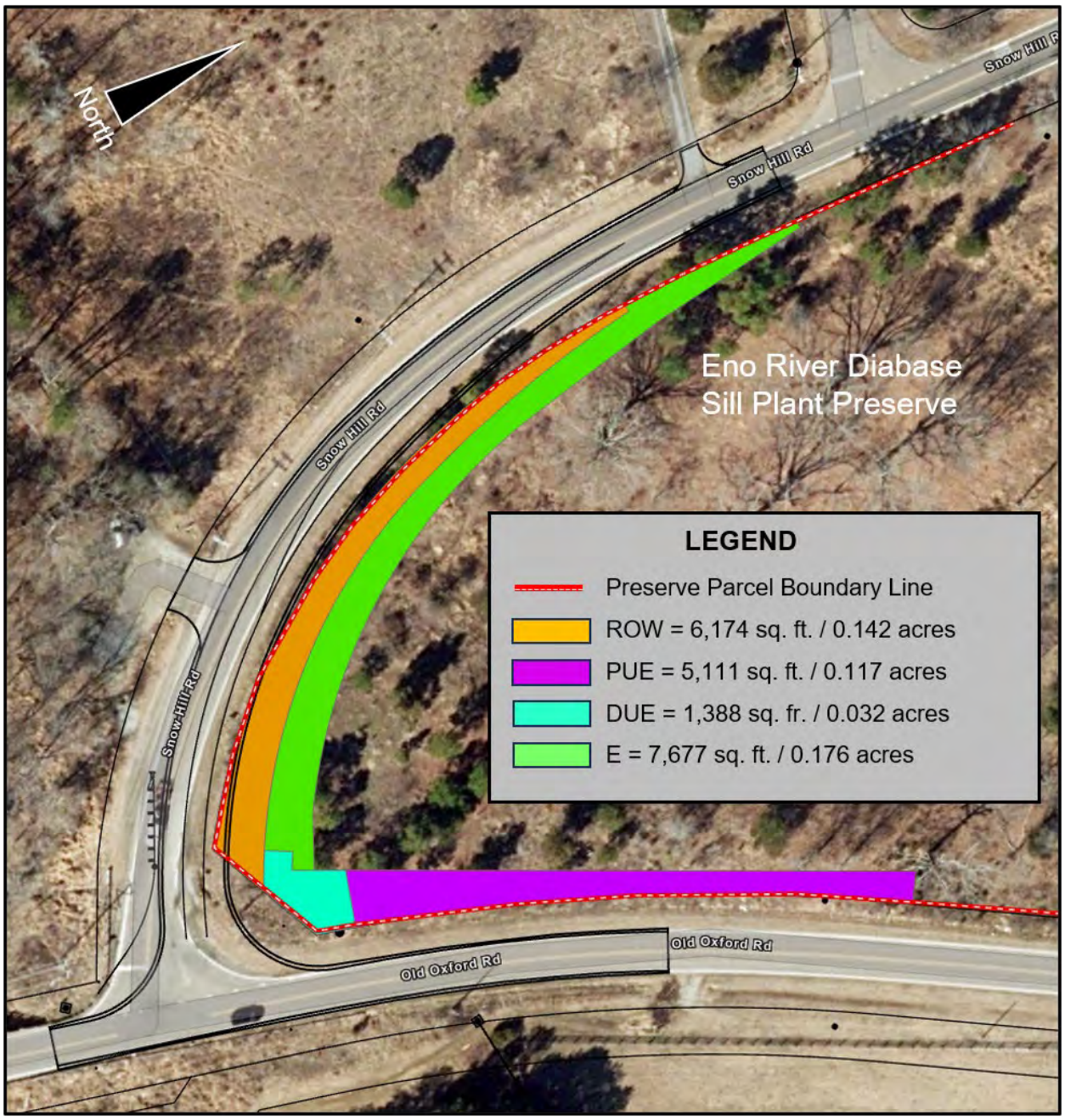
Attachment A – General Roadway Improvements



Attachment B – Related Projects



Attachment C - Proposed ROW, PUE, DUE and E Locations



Source Note: The area amounts presented in the figure above are measured by NCDOT Locations and Survey Unit (L&S) using Bentley Open Roads Designer (ORD) Design and Survey software**.** The Geographic Information Systems (GIS) files submitted for this Amendment Request were submitted in ESRI ArcGIS Pro software. With GIS being a graphic spatial referencing tool, it is prone to slight variances when compared to the more accurate ORD. In the case of this project, GIS adds one square foot to the PUE and E areas, representing a 1% disparity between GIS and ORD. The project ORD files are available upon request.

(DATE)

Pamela B. Cashwell
Department of Natural and Cultural Resources
4601 Mail Service Center
Raleigh, North Carolina 27699-4601

Mr. Michael Kyle Briggs, Executive Director
N.C. Wildlife Resources Commission
Mail Service Center 1701
Raleigh, North Carolina 27699-1701

Subject: Letter of Allocation and Dedication as a Nature Preserve of Portions of the **Needmore Game Land**, Swain and Macon Counties

Dear Secretary Cashwell and Mr. Briggs:

Pursuant to Part 42 of Article 2 of Chapter 143B of the North Carolina General Statutes, this letter of allocation is executed for the purpose of amending an existing Dedicated Nature Preserve encumbering State-owned lands. These Articles of Dedication replace those certain Articles of Dedication dated August 16, 2018. The purpose of this amendment is to reflect boundary corrections and additions of property to the preserve.

This real property which is subject to this Dedicated Nature Preserve is allocated to and currently administered by the North Carolina Wildlife Resources Commission as a portion of the **Needmore Game Land** and consists of approximately 4,581 acres located in Macon and Swain Counties and composed of:

1.	Needmore Game Land (Primary Area)	2,422 acres
2.	Needmore Game Land (Buffer Area)	2,159 acres

all of which are specifically described in Exhibit A and shown on the diagrams in Exhibit B, both attached hereto and incorporated herein and referred to hereafter as “Property”. That 97-acre area depicted on the diagram attached as Exhibit C, attached hereto and incorporated herein by reference, are hereby added to the Dedicated Nature Preserve. The dedicated lands shall be known collectively as the **Needmore Game Land Dedicated Nature Preserve**.

Dedication of the qualified portions of certain tracts included herein fulfills the terms of prior grant agreements, including those of the NC Land and Water Fund, (#), and NC Division of Mitigation Service (formerly Ecosystem Enhancement Program),

THIS DEDICATION OF THE **NEEDMORE GAME LAND NATURE PRESERVE** IS MADE SUBJECT TO THE FOLLOWING TERMS AND CONDITIONS:

1. **Definitions:** As used in this Letter, the terms "natural area" and "nature preserve" shall have the same meaning as contained in North Carolina General Statutes 143B-135.254.

2. **Dedication:** Pursuant to North Carolina General Statutes 143B-135.264, all State-owned lands lying within the above designated area are hereby dedicated as a nature preserve to be known collectively as the **Needmore Game Land Nature Preserve** (hereinafter "preserve") for the purposes provided in the North Carolina Preserves Act, North Carolina General Statute 143B-135.250 *et seq.*, as amended, and other applicable law, and said State-owned land, shall be held, maintained, and used exclusively for said purposes.

3. **Duration**: Subject to the limitations of North Carolina General Statute 143B-135.264, this agreement shall be perpetual, in gross, running with the land.

4. **Primary Custodian**: The primary custodian of the preserve will be the North Carolina Wildlife Resources Commission, which will be responsible for managing the preserve in accordance with State Administrative Code 07 NCAC 13 H Section .0300 and .0400. The Primary Custodian may hereinafter be referred to as “Primary Custodian” or “Custodian”.

5. **Primary Classification and Purpose**: The primary classifications and purposes of the preserve will be natural area conservation, nature education, wildlife management, hunting, fishing, trapping, and other recreational uses authorized by the Primary Custodian. The ecological significance of the Preserve is described in Exhibit A.

6. **Management Areas:** For the purposes of management, the preserve shall be considered to consist of a Primary Area (approximately 2,422 acres, as shown on Exhibit B), and a Buffer Area (approximately 2,159 acres, as shown on Exhibit B and as defined by 07 NCAC 13H .0304), as more particularly described in Exhibit A, attached thereto and by this reference made a part hereof. The Primary Area consists essentially of the exceptionally significant aquatic habitat and its adjoining high-quality and restorable natural communities, including any associated rare species. The aquatic habitat contains the federally listed mussels: the Appalachian elktoe (*Alasmidonta raveneliana*) and littlewing pearlymussel (*Pegias fabula*), and the spotfin chub (*Erimonax monacha*), a federally listed fish, as well as other state-listed and rare aquatic species. High-quality and restorable natural communities include Montane Alluvial Forest, Rocky Bar and Shore, Pine-Oak/Heath, Montane Oak-Hickory Forest, Montane Acidic Cliff, Montane Mafic Cliff, and Low Elevation Seep, as described more fully in Exhibit A.

   The Primary Area--composed of the core natural area as described above--is deemed by the Secretary of the North Carolina Department of Natural and Cultural Resources to qualify as an outstanding natural area under statutory criteria for nature preserve dedication provided in North Carolina General Statute 143B-135.260 and further serves all of the

public purposes for a dedicated preserve as stated in North Carolina General Statute 143B-135.252.

The Buffer Area, which contributes to the management and protection of the Primary Area, consists of less mature, lower quality forests and early successional areas.

7. **Rules for Management of the Primary Area(s)**:

A. Character of Visitor Activity: The principal visitor activities in the preserve shall be hunting, fishing, trapping, walking, research, and observation. These activities shall be regulated by the Custodian to prevent significant disturbance of the preserve. These activities may specifically be regulated by the Custodian to protect and conserve the natural values of the preserve.

Activities and uses unrelated to those listed above are prohibited except as otherwise provided in these Articles or unless necessary to carry out the purposes of the preserve. Prohibited activities include, but are not limited to: construction; commercial activities and development; commercial silviculture; agriculture and grazing; gathering of native species of plants or plant products; the removal, disturbance, molestation, or defacement of minerals, archaeological and natural resources, except for research purposes as approved by the Custodian; and those activities specifically restricted in these Articles.

There shall be no fires, except as necessary for ecological management of the preserve or in conjunction with supervised educational activities of the Custodian, or further excepted as herein provided or otherwise expressly permitted.

B. Consumptive Wildlife Uses: Hunting, fishing, and trapping shall be permitted on the preserve subject to regulations and management by the North Carolina Wildlife Resources Commission.

C. Orientation and Guidance of Visitors: The Custodian reserves the right to orient and guide visitors for educational programs, hunting and fishing uses, scientific research, and for preserve management. Exhibits, programs, and printed materials may be provided by the Custodian in service areas. The Custodian may create and maintain signage or kiosks, overlooks, fences, barriers, guardrails, steps and boardwalks (hereinafter referred to as "Trail Accessories") associated with trails to be constructed within the preserve. The location of any Trail Accessories shall be decided in consultation with the North Carolina Natural Heritage Program and shall be for the purpose of ensuring the safe, permitted use of the preserve while protecting the preserve from unwanted or excessive visitor traffic. The Custodian may restrict the access of visitors in those instances or in such areas that restrictions may be determined necessary to safeguard sensitive environmental resources in the preserve.

D. Roads and Trails: New roads shall not be constructed in the Primary Area. When necessary, the Custodian may construct and maintain access limited to staff for management purposes, such as service paths for patrol, fire control, right-of-way maintenance, and other management activities. The Custodian may maintain roads presently existing within the preserve. Number and width of new paths will be minimized, and sensitive areas avoided when possible. Existing roads that occur within or form a boundary of the Primary Area may be maintained by grading of the roadbed, replacing culverts, or adding stone as needed in order to maintain the integrity of the road for vehicular use. Daylighting of roads within the Primary Area should be minimized, but may be used if necessary to maintain the condition of the road. Access management and construction will be part of the overall management planning process and will include consultation with the North Carolina Natural Heritage Program.

If an existing North Carolina Department of Transportation ("NCDOT") road runs within or along a boundary of the Primary Area and NCDOT demonstrates a compelling need to do so, then subject to the written approval of both the Primary Custodian and the Natural Heritage Program, NCDOT may within the Primary Area use a strip of land up to fifty feet (50') wide outside and adjacent to the road's existing NCDOT right-of-way for the purpose of improving the NCDOT road. A strip of land approved under this provision shall not be longer than 1,000 feet long. The Primary Custodian and the Natural Heritage Program shall concur only if the proposed improvements and the associated activities will not cause significant impacts to rare species, small-patch natural communities, adjacent streams, or other Natural Heritage resource values. The existing NCDOT roads that run within or along a boundary of the Primary Area at the time of the issuance of this letter of allocation are as follows: N.C. 28, S.R. 1110, S.R. 1113. S.R. 1114, S.R.1117, S.R. 1118, S.R.1119, S.R.1125, S.R.1129, S.R.1363, S.R.1364, S.R.1367, S.R.1369, S.R. 1370, S.R.1373, 1374, S.R.1459, S.R.1473.

E. Other Structures and Improvements: Structures or facilities shall not be erected by the Custodian within a preserve, except as may be consistent with the purposes of the preserve as stated in this dedication, and shall have prior written approval from the Secretary of the Department of Natural and Cultural Resources or her/his designee. Site selection shall be consistent with this dedication.

F. Research and Collecting Permits: Any person wishing to engage in scientific research requiring collecting or otherwise affecting anything within the preserve shall first secure written permission from the Custodian or the Secretary of the Department of Natural and Cultural Resources or their designee.

G. Pollution and Dumping: There will be no storage or dumping of ashes, trash, garbage, hazardous substances, toxic waste, other unsightly or offensive material, or

fill material, including dredge material in, on, or under the preserve. No underground storage tanks may be placed within the Preserve. No surface or ground waters of the Preserve may have pollutants added within the Preserve.

H. Excavation: There will be no mining, drilling, removal of topsoil, sand, gravel, rock, minerals, artifact removal, or other material, nor any change in topography or surface hydrology of the preserve. Exceptions may be made for permitted archeological research or for ecological restoration to more natural conditions, consistent with the management plan, and in consultation with the North Carolina Natural Heritage Program.

I. Water Level Control: The purpose of water level control shall be to maintain the Preserves' natural water regime. Water levels that have been altered by human activities may be changed, if necessary, to restore the preserve to its natural condition. In a preserve with a long history of managed hydrology, water levels may be managed to perpetuate the ecosystems that have evolved around the hydrology. This decision should be made in consultation with the Natural Heritage Program.

J. Bringing in Flora and Fauna: No exotic flora and no animals except leashed dogs and cats, hunting dogs as permitted in game lands, horses on trails designated for horseback riding, or animals being reintroduced shall be brought into the preserve. Any reintroduction will be of species native to the natural community and shall be done according to an approved resource management plan.

K. Wildfire Control: Wildfires may mimic natural processes historically occurring in an ecosystem on a landscape level. When the extent of a wildfire does not threaten human life or structures, it may be allowed to burn with minimal control. If wildfire control is necessary, firebreaks may need to be established. When possible, existing roads and firebreaks will be utilized for wildfire control. When new firebreaks need to be established, environmentally sensitive areas will be avoided when possible. Old firebreaks which affect the natural hydrology of wetlands will be filled and allowed to revegetate. Planning of firebreak restoration should occur in consultation with the North Carolina Natural Heritage Program.

L. Disturbance of Natural Features: The cutting or removal of trees, dead or Disturbance of Natural Resources: The cutting or removal of trees, dead or alive, or the disturbance of other natural resources is prohibited except as necessary for removal of hazards to visitors, control of disease or insect infestations that would damage or reduce the significance of the preserve, restoration after severe storm damage, trail clearance and maintenance, or for purposes of maintenance or restoration of natural communities or rare species populations as stipulated in the preserve management plan and that which is consistent with the purposes of these Articles. If needed to maintain the presence of the Montane Oak-Hickory Forest and Pine-Oak/Heath Forests, silvicultural practices (e.g., prescribed burning, thinning, two-age

methods) may be employed. Plans for maintenance of this community type will be submitted to the Natural Heritage Program for review. Salvage timber cuts which may be necessary due to natural catastrophe will be allowed in both Primary and Buffer Areas, but in a manner that will contribute to the recovery of the prevailing natural conditions of the forest and in consultation with the North Carolina Natural Heritage Program.

The Primary Areas defined along the Needmore Tract of certain properties were protected through fee simple acquisition by the State of North Carolina and deed restrictions were imposed by the Ecosystem Enhancement Program. These deed restrictions are recorded in Swain County, NC, Register of Deeds, January 16, 2004, Deed Book 285, Pages 992-995 and in Macon County, NC, Register of Deeds, January 16, 2004, Deed Book S-27, Pages 2098-2105.

M. Control of Populations (natural and exotic): Any control of animal or plant populations on the preserve shall be for the purpose of correcting those situations where those populations are significantly affecting natural conditions on the preserve, and in accordance with the Custodian's established regulations for hunting, trapping, or fishing of designated game animals. The Custodian may, in consultation with the North Carolina Natural Heritage Program, apply biological controls, herbicides and pesticides, and other means deemed necessary or appropriate to control or eradicate exotic or native species of plant or animal that are degrading the natural character of the preserve. Because of potential impacts on native species, no exotic flora or fauna shall be introduced into the preserve.

N. Control of Vegetational Succession: Control of vegetational succession may be undertaken if necessary, to maintain or restore a particular natural ecosystem type or to preserve endangered, threatened, rare, or other unusual species. Controls will be done in the manner that best imitates the natural forces believed responsible for maintaining the natural ecosystem type, or that minimizes unnatural effects on non-target portions of the ecosystem. Prescribed burning is particularly essential to ecosystems where natural wildfire historically suppressed woody vegetation and promoted herbaceous diversity.

O. Management Plan: The Wildlife Resources Commission, as Primary Custodian of the preserve, shall be required to prepare and submit for approval to the Secretary of the Department of Natural and Cultural Resources a management plan for the preserve. The management plan will be part of the larger management plan developed for the game lands. This plan shall be subject to all the provisions of this dedication and shall additionally be consistent with the management principles set forth in the North Carolina Administrative Code 07 NCAC 13H.0300 and .0400. In any case where contradictions may arise between this instrument of dedication and other management regulations, the terms of this dedication shall take precedence.

P. Motorized Vehicles: No motorized vehicles shall be permitted on the dedicated property other than those utilized by the owner or the owner's agents in management and protection of the property in compliance with the management plan.

Q. Signs: No signs, billboards, or other advertising of any kind shall be erected, with the exception of informational and directional signs, designed by the Secretary of the Department of Natural and Cultural Resources, Custodian, or State agency, related to the designation of the area as a preserve or for public access to the preserve.

8. **Rules for Management of the Buffer Area(s)**: Primary Area rules also apply except that additional forestry and wildlife management activities may be planned and carried out as needed. Construction and maintenance of roads within Buffer Area(s) of the preserve will be limited to the level necessary to appropriately manage the preserve. These activities will be conducted in accordance with policy of the N.C. Wildlife Resources Commission and general management philosophy as outlined in Commission planning documents, in addition to providing for the buffer functions in relation to the Primary Area(s). WRC rules and guidelines require the protection and enhancement of wildlife populations and habitat so that hunting, fishing, trapping and other wildlife recreational opportunities are available to citizens of this State. Forest management is primarily conducted to enhance wildlife habitat.

Buffer functions within the dedicated area may include protecting the primary area(s) from indirect detrimental ecological effects, providing additional area for species and ecological processes that require larger areas, and providing important successional stages and disturbance regimes and other habitat diversity for wildlife. Based on these general objectives, the following buffer functions will be addressed in the management plan.

1) Landscape level function of community type and structure. (Buffer Area management may involve timber harvest and other forms of stand manipulation, but will not involve forest canopy type conversion over more than limited areas, other than to restore stands to types suited for the site. Introduction of exotic species known to be invasive in natural communities will be avoided.).
2) Maintenance of habitat connectivity and continuity among Primary Areas;
3) Providing for habitat diversity;
4) Management needs of rare animal and plant species populations occurring within the Buffer Area; and
5) Protection of soil and hydrologic resources and processes within the Primary Area and extending into the Buffer Area. (Naturally vegetated riparian zones will be retained along streams, and watersheds of Primary Areas will be protected from hydrologic alteration.)

9. **Amendment, Modification, and Termination**: The terms and conditions of this dedication may be amended or modified upon agreement of the Wildlife Resources Commission and Secretary of the Department of Natural and Cultural Resources, and approved by the

Council of State. Any portion of the tract dedicated pursuant to this instrument may be removed from dedication in accordance with the provisions of North Carolina General Statutes 143B-135. 250-.272 and the North Carolina Administrative Code, Chapter 7, Sub-chapter 13H.

10. **Nature Preserve Held in Trust:** This Property is held in trust by the State for the benefit of the people of North Carolina for the uses and purposes expressed in the Nature Preserves Act under the terms and authority set forth in North Carolina General Statute 143B-135.262.

11. **Access for Inspection and Right of Entry:** Natural Heritage Program staff, including their successors or assigns, shall have the right, by and through its agents and employees, to enter the Property to inspect the Dedication for compliance with these Articles of Dedication at all reasonable times and with prior notice.

The Governor and Council of State have approved the dedication of the State-owned lands hereinabove described as the **Needmore Game Land Nature Preserve** to be held in trust by the Custodian for the uses and purposes expressed in the Nature Preserves Act at a meeting held in the City of (City Name), North Carolina, on the _____ of _____, (YEAR).

Sincerely,

Gabriel J. Esparza

CONSENTED AND AGREED TO:

_____
Secretary Pamela B. Cashwell
Department of Natural and Cultural Resources

_____
Michael Kyle Briggs, Executive Director
Wildlife Resources Commission

EXHIBIT A

NEEDMORE GAME LAND
DEDICATED NATURE PRESERVE

COUNTY: Swain, Macon PHYSIOGRAPHIC PROVINCE: Mountains

TOPOGRAPHIC QUADS: Wesser 7.5'

SIZE OF AREA: ca. 4,581 acres total (Primary area 2,422 acres, including Restoration Area of six acres, and a Special Management Area of three acres, both described below; Buffer Area of 2,159 acres)

OWNER/ADMINISTRATOR: State of North Carolina
Wildlife Resource Commission

LOCATION: Both sides of the Little Tennessee River, from the bridge on US 19/74 upstream to the mouth of Burningtown Creek, around river mile 96. Additional disjunct parcels lie upstream of the contiguous portion for several miles along the river and along tributaries including Tellico Creek and Burningtown Creek. Access is by Needmore Road, Lower Needmore Road, Sawmill Creek Road, and numerous others. Some portions of the Dedication do not have direct public access. See Map 1.

DESCRIPTION: This Property qualifies for Dedication because of the presence of (1) a habitat for individual species of plants or animals that are in danger of or threatened by extirpation, (2) a rare terrestrial natural community, (3) a rare aquatic community, and after Natural Heritage Program Staff evaluation of the factors presented in 07 NCAC 13H .0202.

The Needmore Game Land consists of a long stretch of floodplain and adjacent uplands along the Little Tennessee River and its tributaries. It provides many miles of riparian buffer along the Little Tennessee River and the lower reaches of its tributaries. The Little Tennessee River is an exceptionally significant aquatic site, containing a large collection of rare fishes and mussels. Among them are the Appalachian elktoe (*Alasmidonta raveneliana*), littlewing pearlymussel (*Pegias fabula*), and the spotfin chub (*Erimonax monachus*), all globally endangered species which are federally listed. The Tennessee pigtoe (*Pleuronaia barnesiana*) and slippershell mussel (*Alasmidonta viridis*) are also globally rare and are state listed. Several other aquatic species are extremely rare in the state. Along most of the dedicated area, the river is wide and swift, with alternating pools, bedrock shoals, and cobble bars. The channel divides in several places to produce islands. At the downstream end of the dedicated area the river is impounded by Fontana Lake.

The river floodplain ranges from narrow bands to broader areas up to 0.1 mile wide. It includes a diversity of alluvial landforms, including terraces of several different elevations, steep banks,

sloughs, pools, bedrock islands, and gravel bars, with relief of 10 feet or more above the river. A number of fields are present in wider areas, some recently cultivated, others long abandoned and containing successional herbaceous vegetation or young trees. Intact Montane Alluvial Forest community patches in varying condition are interspersed. Collectively, they represent by far the most intact and most diverse occurrence of this rare community type. In most areas, they are dominated by tulip poplar (*Liriodendron tulipifera*), red maple (*Acer rubrum*), and sycamore (*Platanus occidentalis*), sometimes with abundant black walnut (*Juglans nigra*). In the best developed large patch, the forest also includes shingle oak (*Quercus imbricaria*), red oak (*Quercus rubra*), black cherry (*Prunus serotina*), silverbell (*Halesia tetraptera*), and other species. The understory is generally dominated by ironwood (*Carpinus caroliniana*). The shrub and herb layers vary widely, with parts having abundant cane (*Arundinaria gigantea*), beds of dog hobble (*Leucothoe fontanesiana*), or diverse herb beds with open spicebush (*Lindera benzoin*) or yellowroot (*Xanthorhiza simplicissima*). Widespread floodplain species such as river oats (*Chasmanthium latifolium*) and wild rye (*Elymus virginicus*) mix with species typical of rich cove forests. As in most alluvial communities, invasive non-native plants are common. In most of the site, the Montane Alluvial Forest is not altered hydrologically. At the downstream end of the site, where the river is impounded, a portion of the community is affected by the high water. In part, this affects only the lower spots in the community, with the higher portions still appearing to be in good condition.

Distinctive Rocky Bar and Shore communities occur on the edges of the river and on islands and shoals in places. The shallowest shoals have bar communities dominated by water-willow (*Justicia americana*). Relatively stable gravel bars have young sycamore and other species characteristic of the Montane Alluvial Forest. One scoured bedrock island has a distinctive shrub and herbaceous community.

A few sloughs have distinctive wetland vegetation, dominated by red maple (some apparently swamp red maple – *Acer rubrum* var. *trilobum*), sycamore, and green ash (*Fraxinus pennsylvanica*). They have more water-tolerant herb layers, including some bur-reed (*Sparganium americanum*), three-way sedge (*Dulichium arundinaceum*), and arrowhead (*Peltandra virginica*). A couple of blocked sloughs are even wetter, and support Floodplain Pool communities with permanent water. An elongated Floodplain Pool with year-round standing water and little vegetation occurs in the floodplain near Raby Bend. The pool extends over a hundred feet and reaches 1-2’ deep. There is almost no vegetation in the pool, and it appears to be natural in origin. The pool sits at the toe of slope to the south, and small rock outcrops border the pool in places. The pool is surrounded by acidic alluvial forest dominated by mountain doghobble.

Most of the uplands are typical mountainous terrain, with broad upland ridges, narrow spur ridges, steep side slopes, and narrow to broad ravines and coves. Steep bluffs are present on the outside of river bends, and the north end of the site is a steeper gorge. The most abundant natural community in the uplands is Montane Oak—Hickory Forest, covering most of the open slopes and ridges. It is dominated by a mix of trees that includes white oak (*Quercus alba*) as a major component. Scarlet oak (*Quercus coccinea*), chestnut oak (*Quercus montana*), red oak (*Quercus rubra*), mockernut hickory (*Carya alba*), and red maple (*Acer rubrum*) are common. Some portions are a drier subtype that includes more characteristically Piedmont species such as southern red oak (*Quercus*

falcata), Post Oak (*Quercus stellata*), and a variety of different herbs. These areas are classified as Montane Oak-Hickory Forest (Low Dry Subtype).

The more sheltered slopes and coves mainly support Acidic Cove Forest communities. They are dominated by a varying mix of trees that includes tulip poplar, red maple, red oak, Canada hemlock (*Tsuga canadensis*), and sweet birch (*Betula lenta*). Generally, they have dense shrub layers of rhododendron (*Rhododendron maximum*) or dog hobble, and few herbs. Less often they have few shrubs and dense herb layers of Christmas fern (*Polystichum acrostichoides*). A few limited areas of Rich Cove Forest are present, indicated by the addition of characteristic trees such as basswood (*Tilia americana* var. *heterophylla*), and a diversity of characteristic herbs. Rich Cove Forests were probably once fairly abundant, but most have been cleared for fields, which occupy most of the wider coves.

The driest parts of the uplands, on south- and west-facing slopes, support Pine--Oak/Heath communities (of the distinctive and less common Low Mountain Pine Forest type). A variety of pines occur in these communities, including pitch pine (*Pinus rigida*), Virginia pine (*Pinus virginiana*), Table Mountain pine (*Pinus pungens*), and shortleaf pine (*Pinus echinata*). Hardwoods, especially scarlet oak, chestnut oak, red maple, and black gum (Nyssa sylvatica), are also common. These communities are dependent on periodic fire to maintain their natural composition. Most have not burned, and have dense shrub layers of mountain laurel (*Kalmia latifolia*), but open patches still have the characteristic herbs that could be expected to increase with burning. These communities have had heavy impacts by southern pine beetles, killing most of the pines which, in the absence of fire, have not regenerated. Most of the beetle-killed patches are not included in the primary area, but some patches in the primary area have remaining mature pines or have regenerated stands of young pines.

Several communities occur in small patches, including Montane Acidic Cliff, and a small glade-like Montane Mafic Cliff. Also notable is a series of Low Elevation Seep communities scattered through the site. These wetlands occur in small pockets along the base of the bluff. They have some trees rooted within them, especially red maple, white oak, and silverbell. Parts have alder (*Alnus serrulata*) as a distinct tall shrub layer. Most parts have a dense herb layer that includes cinnamon fern (*Osmunda cinnamomea*), netted chain fern (*Lorinseria areolata*), sedges (*Carex* spp.), cutleaf coneflower (*Rudbeckia laciniata*), bee balm (*Monarda didyma*), meadow-rue (*Thalictrum clavatum*), and other wetland species.

Several rare species have been found in the site, in addition to those in the river. Of greatest note is the presence of Federally Threatened Virginia spiraea (*Spiraea virginiana*), on the riverbank in a couple of places. Other tracked plants known from the site are: Climbing fumitory (*Adlumia fungosa*), bleeding heart (*Dicentra eximia*), riverbank brome (*Bromus latiglumis*), Appalachian loosestrife (*Steironema tonsa*), Autumn coral-root (*Corallorhiza odontorhiza*), Fraser's loosestrife (*Lysimachia fraseri*), swamp bluegrass (*Poa palustris*), fruitful locust (*Robinia hispida* var *fertilis*), mountain camellia (*Stewartia ovata*), Appalachian violet (*Viola appalachiensis*), and Huger's carrionflower (*Smilax hugeri*). Tawny crescent (*Phyciodes batesii maconensis*) has been reported along Lower Needmore Road and may be elsewhere in the site.

BOUNDARY JUSTIFICATION: The Primary Area includes most riparian areas, along with upland areas where communities are in good condition. All areas within 300-feet of the Little Tennessee River and the major tributaries that contain rare aquatic species are dedicated as Primary Areas to protect the water quality in the streams. An exception is made for some existing open fields; these are prior disturbances that may be maintained within their current footprint, with the exception of the 100 feet closest to the river, addressed in Management and Use Section Below. Along other tributary streams, 200- and 100-feet along each side are dedicated as Primary Area to protect water quality; the 200-foot riparian zones are associated with recent acquisitions, following NC Land and Water Fund standards for dedication for waters contributing to aquatic habitats that provide habitat for federally listed species. Beyond the 300-foot, 200-foot, and 100-foot zones, the Primary Area includes only the more mature forest areas, uncommon communities, and rare species locations.

Along the Little Tennessee River near Raby Bend, a botanically diverse old field grassland is being maintained in open condition. This area, within the 100-feet riparian zone, is mapped as a Special Management Area to allow for its continued management as open grassland. WRC indicated plans to plant a thicker riparian zone of native canopy vegetation along the river itself, allowing it to thin out away from the river into a savanna-type habitat, maintaining some of the native warm season grass habitat.

Six acres on a ridgetop on the Kelly Cove tract are designated Primary (Restoration). This area contains degraded Pine Oak-Heath (Typic Subtype) which can be readily restored through the application of regular prescribed fire and removal of a percentage of the red maple (*Acer rubrum*) and scarlet oak (*Quercus coccinea*), which have become dominant. Restoration refers to interventions over a limited term that are planned to return an ecosystem to a more natural species composition, vegetation structure, and ecosystem function, with an expectation that it will then be self-sustaining with appropriate natural area management. For the savanna communities, ongoing periodic prescribed burning that compensates for the missing natural spread of fire will be needed to retain the ecological function of the restored area.

The rest of the game land is dedicated as Buffer Area, to provide additional protection to water quality, to buffer the Primary Areas from detrimental edge effect, and to provide additional habitat for wider-ranging wildlife.

MANAGEMENT AND USE: The dedicated nature preserve is managed as game land, for public hunting, wildlife viewing, and passive recreation. Prescribed burning is recommended on the upland portions of the site, including the Primary (Restoration) Area. The pine communities in particular need fire to reverse significant deterioration. The Montane Oak—Hickory Forests also would benefit from low-intensity fire, and burning may prove crucial in the long run to prevent deterioration.

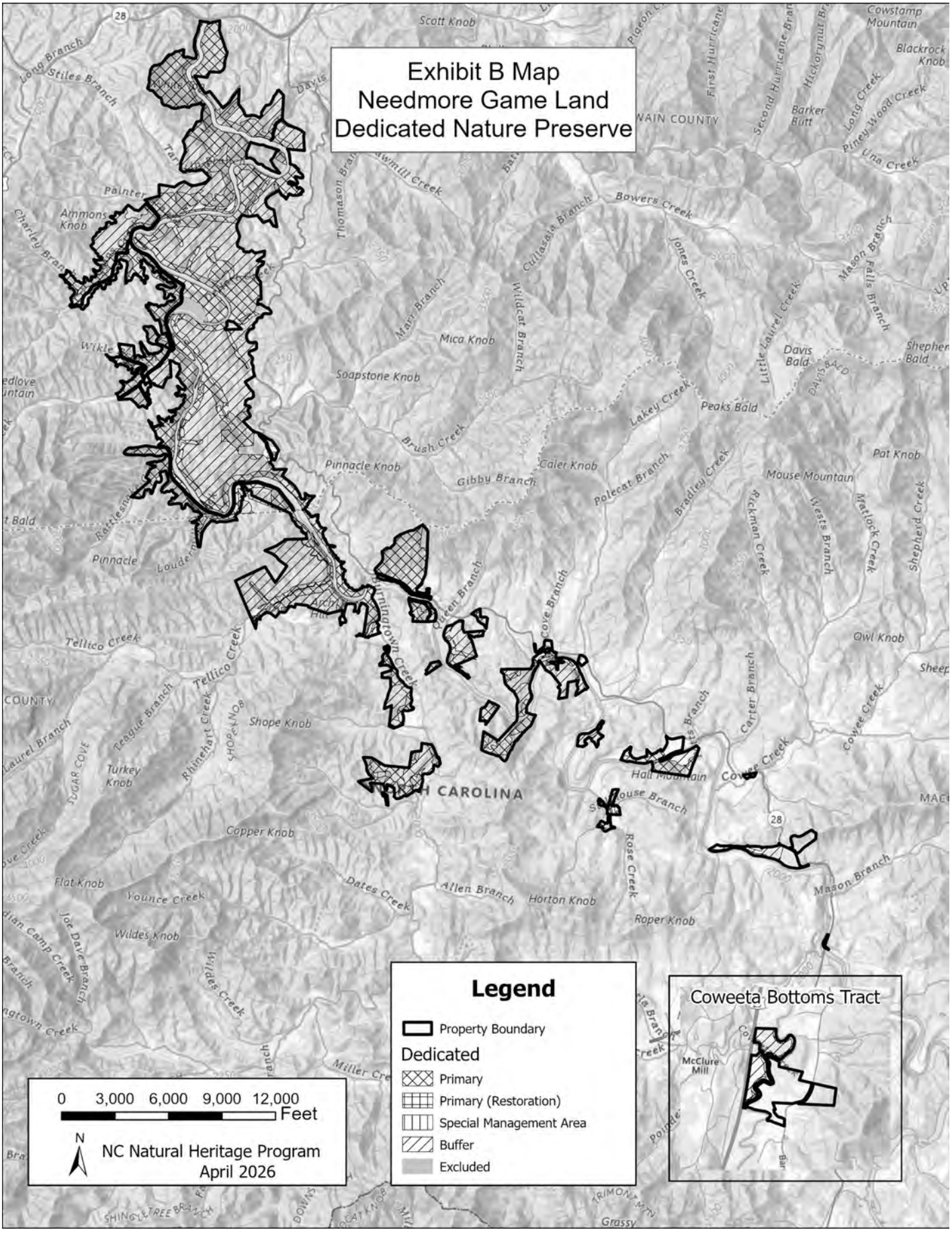
On the Kelly Cove tract, where a field exists along Burningtown Creek, mowing should cease within a 100-ft riparian zone, and planting of appropriate native trees along the riverbank should be considered to help stabilize the undercut and eroding banks. On the Duvall tract, existing fields outside of the 100-foot riparian zone may continue as open field; the small area of existing field within the 100-foot riparian zone may continue to be managed as open field/hay meadow until January 1, 2028, at which time that portion of field would be allowed to return to woody vegetation, for a riparian zone with natural forest vegetation at least 100 foot in width. On the Raby Farm tract, a 50-foot minimum riparian zone is allowed for the duration of the current hay meadow lease contract, but likewise will revert to a 100-foot wide forested riparian zone on January 1, 2028. Best management practices for open field management specific to protecting water quality and aquatic resources should be utilized.

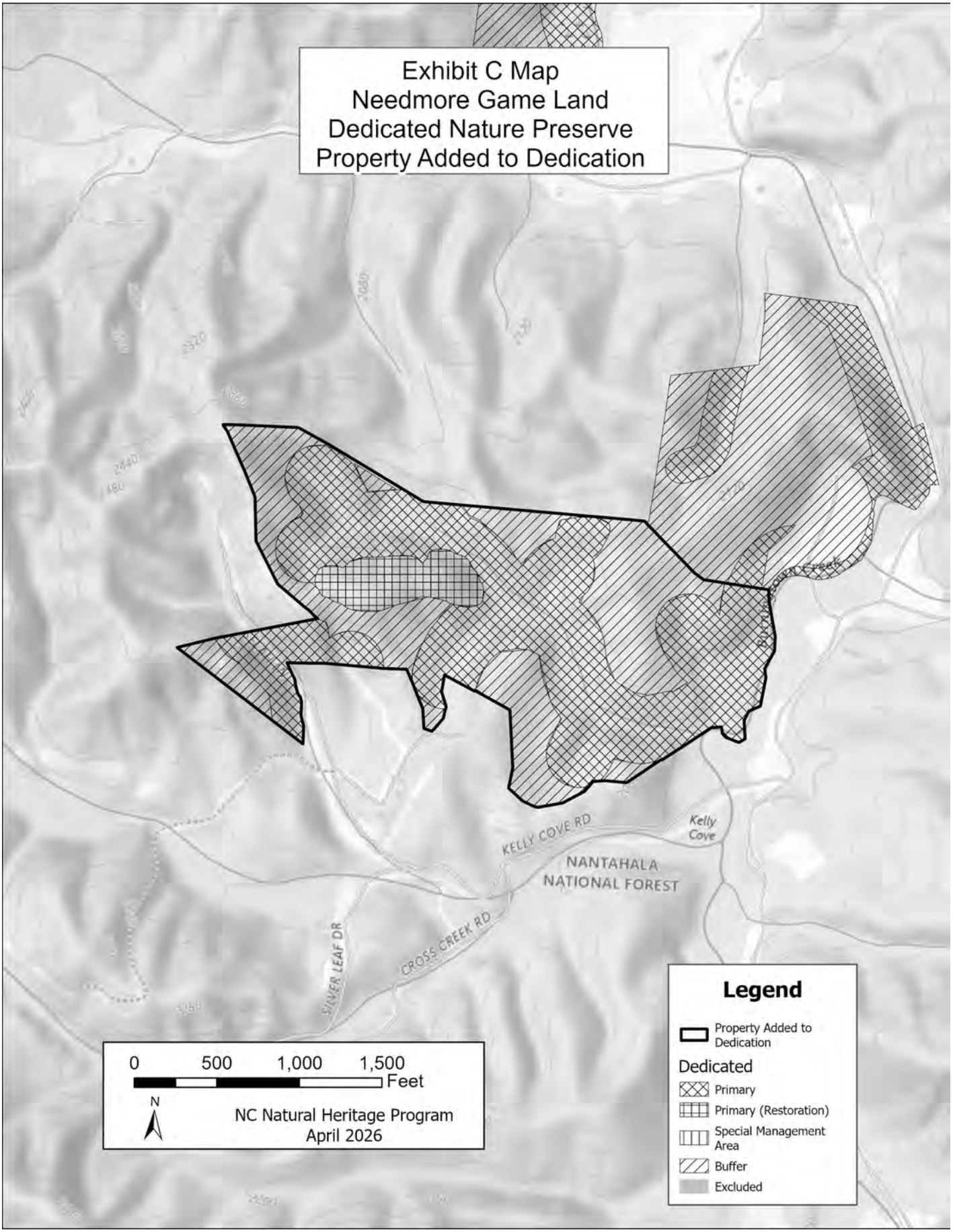
The pine communities that have been heavily disturbed by southern pine beetles may need restoration work beyond burning to allow pines to regenerate. This may include mechanical treatment of hardwoods and shrubs, and possibly planting pines where seed sources have been lost.

Control of invasive exotic plants is encouraged, especially in the floodplain and seep areas where they are dense. Stilt-grass (*Microstegium vimineum*), Japanese honeysuckle (*Lonicera japonica*), murdannia (*Murdannia keisak*), multiflora rose (*Rosa multiflora*), and Chinese privet (*Ligustrum sinense*) are dense enough to cause ecological damage in some areas and have the potential to spread. Kudzu (*Pueraria lobata*) patches are present and have invaded forests in some places. Though not noted, Japanese knotweed (*Reynoutria japonica*) has the potential to appear and to be a threat to bars and possibly other floodplain communities. Sericea Lespedeza (*Lespedeza cuneata*) is not presently a problem but has proved invasive in burned communities elsewhere, so it should be watched for. A number of other non-native plants are present in small numbers but do not appear to represent significant threats at present. Non-native pests, especially hemlock woolly adelgid, are also a great concern. Control of non-native species that are causing damage or have the potential to cause damage is recommended; however, control methods need to be specific to the target species and designed to avoid harm to native species or to the communities in which they occur.

Forest roads are a potential concern in the site. In places, roads run very near the river or streams. Erosion of unstable roads is a threat to water quality in the river; road conditions should be monitored, and best management practices for road maintenance should be followed.

Selective, manual harvest of river cane (*Arundinaria gigantea)* for indigenous cultural purposes will be allowed within the Dedicated Nature Preserve at Coweeta Bottoms. The river cane may be harvested by selecting single stalks. Burning of areas with river cane will encourage new growth.


Exhibit B Map
Needmore Game Land
Dedicated Nature Preserve
Legend
Property Boundary
Dedicated
Primary
Primary (Restoration)
Special Management Area
Buffer
Excluded
0 3,000 6,000 9,000 12,000
Feet
N
NC Natural Heritage Program
April 2026
Coweeta Bottoms Tract
McClure Mill
Scott Knob
Cowstamp Mountain
Blackrock Knob
Barker Butt
Long Creek
Piney Wood Creek
Una Creek
Bowers Creek
Jones Creek
Mason Branch
Falls Branch
Little Laurel Creek
Davis Bald
Peaks Bald
Lakey Creek
Mica Knob
Soapstone Knob
Wildcat Branch
Cullasaja Branch
Thomason Branch
Sawmill Creek
Ammons Knob
Pinnacle Knob
Caler Knob
Gibby Branch
Brush Creek
Polecat Branch
Bradley Creek
Mouse Mountain
Pat Knob
Owl Knob
Matlock Creek
Shepherd Creek
Wests Branch
Rackman Creek
Carter Branch
Cowee Creek
Hall Mountain
Tellico Creek
Rhinehart Creek
Shope Knob
Turkey Knob
Laurel Branch
Teague Branch
Queen Branch
Cove Branch
Copper Knob
Flat Knob
Younce Creek
Wildes Knob
Dates Creek
Allen Branch
Horton Knob
Roper Knob
Rose Creek
Mason Branch
Grassy
NORTH CAROLINA
MACON COUNTY
28


Exhibit C Map
Needmore Game Land
Dedicated Nature Preserve
Property Added to Dedication
KELLY COVE RD
Kelly Cove
NANTAHALA NATIONAL FOREST
CROSS CREEK RD
SILVER LEAF DR
0 500 1,000 1,500 Feet
N
NC Natural Heritage Program
April 2026
Legend
Property Added to Dedication
Dedicated
Primary
Primary (Restoration)
Special Management Area
Buffer
Excluded

Pending Review

(DATE)

Pamela B. Cashwell
Department of Natural and Cultural Resources
4601 Mail Service Center
Raleigh, North Carolina 27699-4601

Mr. Michael Kyle Briggs, Executive Director
N.C. Wildlife Resources Commission
Mail Service Center 1701
Raleigh, North Carolina 27699-1701

Subject: Letter of Allocation and Dedication as a Nature Preserve of Portions of the **Holly Shelter Game Land**, Pender County

Dear Secretary Cashwell and Mr. Briggs:

Pursuant to Part 42 of Article 2 of Chapter 143B of the North Carolina General Statutes, this letter of allocation is executed for the purpose of amending an existing Dedicated Nature Preserve encumbering State-owned lands. These amended Articles of Dedication replace those certain Articles of Dedication approved by Council of State at their June 5, 2007 meeting and dated August 31, 2007. These amended articles reflect additions of property to the preserve.

This real property which is subject to this Dedicated Nature Preserve is allocated to and currently administered by the North Carolina Wildlife Resources Commission as a portion of the **Holly Shelter Game Land** and consists of approximately 32,742 acres located in Pender County and composed of:

1.	Holly Shelter Game Land (Primary Area)	26,352 acres
2.	Holly Shelter Game Land (Buffer Area)	6,390 acres

which are specifically described in **Exhibit A-1 (Northern Section), A-2 (Western Section), A-3 (Southern Section) and A-4 (Central Section Pocosin Hydrology Restoration Area), collectively referred to as Exhibit A,** and shown on the diagrams in **Exhibit B -1 (Overview), B-2 (Northern Section), B-3 (Western Section), B-4 (Southern Section) and B-5 (Central Section Pocosin Hydrology Restoration Area), collectively referred to as Exhibit B** and **Exhibits C-1 (Southern Section) and C-2 (Central Section Pocosin Hydrology Restoration Area), collectively referred to as Exhibit C**, attached hereto and incorporated herein, and referred to hereafter as "Property".

A 1,624-acre area depicted on the diagram attached as **Exhibit C-1** (Southern Section), and a 15,780-acre area depicted on the diagram attached as **Exhibit C-2** (Central Section Pocosin

Hydrology Restoration Area), are hereby added to the Dedicated Nature Preserve. The dedicated lands shall be known collectively as the **Holly Shelter Game Land Dedicated Nature Preserve**.

Dedication of the qualified portions of certain tracts included herein fulfills certain terms of prior grant agreements, including those of the NC Land and Water Fund, (#2001B-107, #200304602, #200304606, #2022-112), and additionally those of the Environmental Protection Agency – Climate Pollution Reduction Grant (the "EPA-CPRG").

THIS DEDICATION OF THE **HOLLY SHELTER GAME LAND DEDICATED NATURE PRESERVE** IS MADE SUBJECT TO THE FOLLOWING TERMS AND CONDITIONS:

1. **Definitions:** As used in this Letter, the terms "natural area" and "nature preserve" shall have the same meaning as contained in North Carolina General Statute 143B-135.254.

2. **Dedication:** Pursuant to North Carolina General Statute 143B-135.264, all State-owned lands lying within the above designated area are hereby dedicated as a nature preserve to be known collectively as the **Holly Shelter Game Land Dedicated Nature Preserve** (hereinafter "preserve") for the purposes provided in the North Carolina Preserves Act, North Carolina General Statute 143B-135.250 *et seq.*, as amended, and other applicable law, and said State-owned land, shall be held, maintained, and used exclusively for said purposes. A portion of the property was previously dedicated as a nature preserve and a Notice of Dedicated Nature Preserve was recorded in Pender County, NC, Register of Deeds, August 20, 2018, Deed Book 4670, Pages 2161-2175. The terms of the former dedication are compatible with those of this letter of allocation.

3. **Duration**: Subject to the limitations of North Carolina General Statute 143B-135.264, this agreement shall be perpetual, in gross, running with the land.

4. **Primary Custodian**: The primary custodian of the preserve will be the North Carolina Wildlife Resources Commission, which will be responsible for managing the preserve in accordance with State Administrative Code 07 NCAC 13 H Section .0300 and .0400. The Primary Custodian may hereinafter be referred to as "Primary Custodian" or "Custodian".

5. **Primary Classification and Purpose**: The primary classifications and purposes of the preserve will be natural area conservation, including ecological and hydrological restoration, nature education, wildlife management, hunting, fishing, trapping, and other compatible uses authorized by the Primary Custodian. The ecological significance of the preserve is described in **Exhibit A**.

6. **Management Areas:** For the purposes of management, the preserve shall be considered to consist of a Primary Area (approximately 26,351 acres), as shown on **Exhibit B**, and a Buffer Area (approximately 6,390 acres, as shown on **Exhibit B** and as defined by 07 NCAC 13H .0304), as more particularly described in **Exhibit A**. The Primary Area consists

essentially of the significant natural communities and rare species populations, as described more fully in **Exhibit A**.

The Primary Area is deemed by the Secretary of the North Carolina Department of Natural and Cultural Resources to qualify as an outstanding natural area under statutory criteria for nature preserve dedication provided in North Carolina General Statute 143B-135.260 and further serves all of the public purposes for a dedicated preserve as stated in North Carolina General Statute 143B-135.252.

The Primary Area includes 87 acres of Special Management Area as described in **Exhibit A** and shown on **Exhibit B** which is subject to a Utility Right of Way in existence at the time of this amended Articles of Dedication.

The Primary Area includes 16,775 acres of Restoration Area as described in **Exhibit A** and shown on **Exhibits B and C**.

The Buffer Area, which contributes to the management and protection of the Primary Area, is further described in **Exhibit A**.

7. **Rules for Management of the Primary Area(s)**:

A. Character of Visitor Activity: The principal visitor activities in the preserve shall be hunting, fishing, trapping, walking, research, and observation. These activities shall be regulated by the Custodian to prevent significant disturbance of the preserve. These activities may specifically be regulated by the Custodian to protect and conserve the natural values of the preserve.

Activities and uses unrelated to those listed above are prohibited except as otherwise provided in these Articles or unless necessary to carry out the purposes of the preserve. Prohibited activities include but are not limited to: those activities specifically restricted in these Articles; construction; consumptive commercial development or services; commercial silviculture; agriculture and grazing; gathering of native species of plants or plant products; and the removal, disturbance, molestation, or defacement of minerals, archaeological and natural resources, except for research or restoration purposes as approved by the Custodian and North Carolina Natural Heritage Program.

There shall be no fires, except as necessary for ecological management of the preserve or in conjunction with supervised educational activities of the Custodian, or further excepted as herein provided or otherwise expressly permitted.

B. Consumptive Wildlife Uses: Hunting, fishing, and trapping shall be permitted on the preserve subject to regulations and management by the Custodian.

C. Orientation and Guidance of Visitors: The Custodian reserves the right to orient and guide visitors for educational programs, hunting and fishing uses, scientific research, and for preserve management. Exhibits, programs, and printed materials may be provided by the Custodian. The Custodian may create and maintain signage or kiosks, overlooks, fences, barriers, guardrails, steps and boardwalks (hereinafter referred to as "Trail Accessories") associated with trails to be constructed within the preserve. The location of any Trail Accessories shall be decided in consultation with and approval by the North Carolina Natural Heritage Program and shall be for the purpose of ensuring the safe, permitted use of the preserve while protecting the preserve from unwanted or excessive visitor traffic. The Custodian may restrict the access of visitors in those instances or in such areas that restrictions may be determined necessary to safeguard sensitive environmental resources in the preserve.

D. Roads and Trails: Construction of roads within the Primary Area of the preserve will be limited to the level necessary to appropriately manage the preserve. Otherwise, new roads shall not be constructed in the Primary Area. When necessary, the Custodian may construct and maintain access limited to use by staff for management purposes, such as service paths (single lane vegetated paths) for patrol, right-of-way maintenance, and other management activities, within the Primary Area. The number and width of new paths will be minimized, and sensitive areas avoided when possible. The Custodian may locate, build and maintain trails within the boundary of the preserve in a manner consistent with this dedication and with prior approval of the North Carolina Natural Heritage Program. The North Carolina Natural Heritage Program may require that the Custodian reroute, restrict or limit access to specific areas of the preserve if it is determined by the North Carolina Natural Heritage Program that such reroute, restriction or limitation is necessary to safeguard sensitive environmental resources in the preserve.

Existing roads that occur within or which form a boundary of the Primary Area may be maintained by grading of the roadbed, replacing culverts, or adding stone as needed in order to maintain the integrity of the road for vehicular use. Daylighting of roads within the Primary Areas should be minimized, but may be used if necessary to maintain the condition of the road. Access management and construction will be part of the overall management planning process and shall include consultation with the North Carolina Natural Heritage Program.

If an existing North Carolina Department of Transportation ("NCDOT") road runs within or along a boundary of the Primary Area and NCDOT demonstrates a compelling need, then subject to the written approval of both the Primary Custodian and the Natural Heritage Program, NCDOT may, within the Primary Area, use a strip of land up to fifty feet (50') wide outside and adjacent to the road's existing NCDOT right-of-way for the purpose of improving the NCDOT road. A strip of land approved under this provision shall not be longer than 1,000 feet long. The Primary Custodian and the Natural Heritage Program shall concur only if the

proposed improvements and the associated activities will not cause significant impacts to rare species, small-patch natural communities, adjacent streams, or other Natural Heritage resource values. The existing NCDOT roads that run within or along a boundary of the Primary Area at the time of the issuance of this Letter of Allocation are as follows: S.R. 1520, S.R. 1522, NC 53, US 17/NC 210, S.A. 98217, S.A. 98044, S.A. 98227, S.A. 98043, S.A. 98197, S.A. 98237, S.A. 98045, S.A. 98184, S.A. 98192, S.A. 98230.

E. Other Structures and Improvements: Structures or facilities shall not be erected by the Custodian within a preserve, except as may be consistent with the purposes of the preserve as stated in this dedication and shall have prior written approval from the Secretary of the Department of Natural and Cultural Resources or her/his designee. Site selection shall be consistent with this dedication.
In the 15,780-acre **Central Section Pocosin Hydrology Restoration Area** of the Preserve, as described in **Exhibit A-4** and depicted on the diagrams attached as **Exhibits B-5 and C-2**, water control structures, weirs, and any additional infrastructure provided for in the Holly Shelter Peatland Restoration Hydrologic Management Plan prepared by The Nature Conservancy, dated August 2026 (hereinafter referred to as Hydrology Restoration Plan) are allowed. Water control structures or weirs may be constructed in existing ditches in other parts of the preserve for the purpose of restoring more natural hydrology, subject to agreement by all parties to this dedication. The Department of Natural and Cultural Resources and Custodian may enter into agreement(s) for ongoing management of the Central Section Pocosin Hydrology Restoration Area to coordinate implementation of the Hydrology Restoration Plan and in order to ensure that the management practices are consistent with the conservation values associated with the preserve.

F. Research and Collecting Permits: Any person wishing to engage in scientific research requiring collecting or otherwise affecting anything within the preserve shall first secure written permission from the Custodian and the North Carolina Natural Heritage Program or their respective designees.

G. Pollution and Dumping: There will be no storage or dumping of ashes, trash, garbage, hazardous substances, toxic waste, other unsightly or offensive material, or fill material, including dredge material in, on, or under the preserve. An exception is made for clean fill material that may be used to raise roads in the Central Section Pocosin Hydrology Restoration Area described in Exhibit A-4 and depicted on the diagram attached as Exhibits B-5 and C-2. No underground storage tanks may be placed within the Preserve. No surface or ground waters of the Preserve may have pollutants added within the Preserve.

H. Excavation: There will be no mining, drilling, removal of topsoil, sand, gravel, rock, minerals, artifact removal, or other material, nor any change in topography or

surface hydrology of the preserve, except those provided for in the Hydrology Restoration Plan for the Central Section Pocosin Hydrology Restoration Area described in **Exhibit A-4** and depicted on the diagrams attached as **Exhibits B-5 and C-2**, and subject to terms of associated agreements, or such future hydrology restoration plans as agreed upon by the Custodian and the North Carolina Natural Heritage Program. Exceptions may be made, with the approval of the North Carolina Natural Heritage Program, for permitted archeological activity or for ecological restoration to more natural conditions, consistent with the management plan.

I. Water Level Control: The purpose of water level control shall be to maintain or restore the preserves' natural water regime. Water levels that have been altered by human activities may be changed, if necessary, to restore the preserve to its natural condition. It is recognized that a return to more natural hydrology may be partial. In a preserve with a long history of managed hydrology, water levels may be managed to perpetuate the ecosystems that have evolved around the hydrology. This decision should be made in consultation with the North Carolina Natural Heritage Program.

J. Bringing in Flora and Fauna: No exotic flora and no animals except leashed dogs and cats, hunting dogs as permitted in game lands, or animals being reintroduced shall be brought into the preserve. Horses may be permitted by the Custodian on roads or trails, with monitoring and management by the Custodian to avoid or minimize impacts to the preserve. Any reintroduction will be only of species native to the natural community and shall be done according to an approved management plan. Annual non-native plants with a record of not being invasive may be planted for temporary stabilization of excavated areas in the Central Section Pocosin Hydrology Restoration Area described in **Exhibit A-4** and depicted on the diagrams attached as **Exhibits B-5 and C-2**.

K. Wildfire Control: Wildfires may mimic natural processes historically occurring in an ecosystem on a landscape level. When the extent of a wildfire does not threaten human life or structures, it may be allowed to burn with minimal control. If wildfire control is necessary, firebreaks may need to be established. When possible, existing roads and firebreaks will be utilized for wildfire control. When new firebreaks need to be established, environmentally sensitive areas, such as rare species and rare communities, will be avoided when possible. Old firebreaks which affect the natural hydrology of wetlands will be filled and allowed to revegetate. Planning of firebreak restoration should occur in consultation with the North Carolina Natural Heritage Program.

L. Disturbance of Natural Features: The cutting or removal of trees, dead or alive, or the disturbance of other natural resources is prohibited except as necessary for removal of hazards to visitors, control of disease or insect infestation that would damage or reduce the significance of the preserve, restoration after severe storm

damage, as part of approved research, trail clearance and maintenance, or for purposes of maintenance or restoration of natural communities or rare species populations as stipulated in the preserve management plan and that which is consistent with the purposes of these Articles. Specifically, a management plan will address restoration of longleaf pine areas identified as Primary (Restoration) Areas in the **Exhibit A-1** and shown on **Exhibit B-2** for the Northern Section which have been planted in dense longleaf, in species other than longleaf, or clearcut within the Primary Area. Longleaf restoration will minimally focus on removal of unnatural canopy components and thinning of dense longleaf to enhance the condition of the ground layer. Planting of longleaf pine seedlings in clearcut areas is also allowable if needed. The longleaf pine restoration areas may be evaluated as these areas mature and regain natural character and composition, and considered for reclassification as Primary Areas. Subsequent longleaf restoration planning may occur through mutual consent of Wildlife Resources Commission and the North Carolina Natural Heritage Program, as additional areas in need of restoration or new methods of restoration are determined. Local disturbances necessary for implementation of the Hydrology Restoration Plan are allowable but shall be kept to a minimum area and kept within the footprint of existing roads and ditches to the extent possible. Salvage timber cuts, which may be necessary due to natural catastrophe, will be allowed in both Primary and Buffer Areas, but in a manner that will contribute to the recovery of the prevailing natural conditions of the forest and in consultation with the North Carolina Natural Heritage Program.

The following language is being included in this letter of allocation because the dedicated preserve contains habitat types which may be managed for maintenance or recruitment of colonies of the Federally Threatened Red-cockaded Woodpecker (*Leuconotopicus borealis*). In the Recovery Plan for the Red-Cockaded Woodpecker (US Fish and Wildlife Service: Southeast Region, Atlanta, GA), a range of management actions is prescribed for this purpose. While these objectives take precedence in the preserve because of the rarity of the species involved, Primary Areas should be managed to promote the full range of natural characteristics. Management should focus on prescribed burning. If canopy thinning is needed to meet guidelines, it should be done to the minimum degree necessary, unless it is agreed that other treatment would better promote the natural multi-aged, patchy character of Longleaf Pine communities. Canopy and midstory treatments should be done in ways that minimize disturbance to the ground cover vegetation and the soil.

M. Control of Populations (natural and exotic): Any control of animal or plant populations on the preserve shall be for the purpose of correcting those situations where those populations are significantly affecting natural conditions on the preserve, or in accordance with the Custodian's established regulations for hunting, trapping, or fishing of designated game animals. The Custodian may, in consultation with the North Carolina Natural Heritage Program, apply biological controls, herbicides and pesticides, and other means deemed necessary or appropriate to control or eradicate

exotic or native species of plant(s) or animal(s) that are degrading the natural character of the preserve. Because of potential impacts on native species, no exotic flora or fauna shall be introduced into the preserve.

N. Control of Vegetational Succession: Control of vegetational succession may be undertaken if necessary to maintain or restore a particular natural ecosystem type or to preserve endangered, threatened, rare, or other unusual species. Controls will be done in the manner that best imitates the natural forces believed responsible for maintaining the natural ecosystem type, or that minimizes unnatural effects on non-target portions of the ecosystem. Prescribed burning is particularly essential to ecosystems where natural wildfire historically suppressed woody vegetation and promoted herbaceous diversity.

Additionally, a transmission line right-of-way containing the same or similar special elements of natural diversity representative of the preserve generally is present in portions of the Holly Shelter Game Land. The Custodian may enter into agreement(s) with the party or parties responsible for managing the right-of-way in order to ensure that the management practices of such party or parties are consistent with the conservation values associated with the preserve.

O. Management Plan: These rules for management constitute a management plan within the meaning of 07 NCAC 13H.400 until detailed plans are prepared. The dedicated nature preserve will continue to be subject to other applicable regulations within NCAC Title 07, Chapter 13. Where contradictions may arise between this instrument of dedication and other management regulations, the terms of this Dedication shall take precedence.

The NC Wildlife Resources Commission, as Primary Custodian of the preserve, shall be required to prepare and submit for approval to the Secretary of the Department of Natural and Cultural Resources a detailed management plan for the preserve including restoration plans for those Restoration Areas outside of the Central Section Pocosin Hydrology Restoration Area. The management plan may be part of the larger Game Land management plan developed for the game lands. The plan shall be subject to all the provisions of this dedication and shall additionally be consistent with the management principles set forth in the North Carolina Administrative Code 07 NCAC 13H.0300 and .0400. In any case where contradictions may arise between this instrument of dedication and other management regulations, the terms of this dedication shall take precedence.

The 15,780-acre Central Section Pocosin Hydrology Restoration Area, described in **Exhibit A-4** and depicted on the diagrams attached as **Exhibits B-5 and C-2**, is additionally subject to the Hydrology Restoration Plan and any corresponding

agreements between the Department of Natural and Cultural Resources and the Wildlife Resources Commission for their duration.

As the needs for new management actions arise, additional management plans may be created for specific projects and submitted for approval to the Secretary of the Department of Natural and Cultural Resources.

N. Motorized Vehicles: No motorized vehicles shall be permitted on the dedicated property other than those utilized by the Custodian or the Custodian's agents in management and protection of the property or used by the general public for ingress and egress to the property in compliance with the management plan for the preserve

O. Signs: No signs, billboards, or other advertising of any kind shall be erected, with the exception of informational and directional signs, designed by the Secretary of the Department of Natural and Cultural Resources, Custodian, or other State agency, related to the designation of the area as a preserve or for public access to the preserve.

P. Special Management Areas: The Special Management Areas are subject to existing Utility Rights of Way and are subject to the rights of third parties and to use those areas in specific ways. Such use is not a violation of these Articles. Any management action within Special Management Areas by Custodian or their agents shall be consistent with the conservation values associated with the preserve.

8. **Rules for Management of the Buffer Area(s)**: Primary Area rules also apply to the Buffer Area except that additional forestry and wildlife management activities may be planned and carried out as needed, subject to the limitations described below. Construction of roads within Buffer Area of the preserve will be limited to the level necessary to appropriately manage the preserve. These activities will be conducted in accordance with the policy of the N.C. Wildlife Resources Commission policy, in addition to providing for the buffer functions in relation to the Primary Area(s). WRC rules and guidelines require the protection and enhancement of wildlife populations and habitat so that hunting, fishing, trapping and other wildlife recreational opportunities are available to citizens of this State. Forest management is primarily conducted to enhance wildlife habitat.

Buffer functions within the Buffer Area may include protecting the primary area(s) from indirect detrimental ecological effects, providing additional area for species and ecological processes that require larger areas, and providing important successional stages and disturbance regimes and other habitat diversity for wildlife. Based on these general objectives, the following buffer functions will be addressed in the management plan.

1) Landscape level function of community type and structure. (Buffer Area management may involve timber harvest and other forms of stand manipulation but will not involve forest canopy type conversion over more than limited areas, other than to

restore stands to types suited for the site. Introduction of exotic species known to be invasive in natural communities will be avoided.);

2) Maintenance of habitat connectivity and continuity among Primary Areas;

3) Providing for habitat diversity;

4) Management needs of rare animal and plant species populations occurring within the Buffer Area; and

5) Protection of soil and hydrologic resources and processes within the Primary Area and extending into the Buffer Area. (Naturally vegetated riparian zones will be retained along streams, and watersheds of Primary Areas will be protected from hydrologic alteration.)

9. **Amendment, Modification, and Termination**: The terms and conditions of this dedication may be amended or modified upon agreement of the Wildlife Resources Commission and Secretary of the Department of Natural and Cultural Resources, and in accordance with the provisions of North Carolina General Statutes 143B-135. 250-.272 and the North Carolina Administrative Code, Chapter 7, Subchapter 13H, which require the approval of the Governor and the Council of State.

   The Environmental Protection Agency – Climate Pollution Reduction Grant is funding the restoration and management of the 15,780-acre Central Pocosin Hydrology Restoration Area Section of the preserve. The Central Pocosin Hydrology Restoration Area Section of the preserve shall be restored and maintained consistent with the Holly Shelter Restoration Project for Peatland Restoration as described in EPA grant No. XP-03D25824, a copy of which is available at North Carolina Department of Natural and Cultural Resources, 109 E. Jones Street, Raleigh NC, 27601.

10. **Nature Preserve Held in Trust:** This Property is held in trust by the State for the benefit of the people of North Carolina for the uses and purposes expressed in the Nature Preserves Act under the terms and authority set forth in North Carolina General Statute 143B-135.262.

11. **Access for Inspection and Right of Entry:** Natural Heritage Program staff, including their successors or assigns, shall have the right, by and through its agents and employees, to access and enter the Property to inspect the Dedication for compliance with these Articles of Dedication at all reasonable times and with prior notice.

The Governor and Council of State have approved the amended dedication of the State-owned lands hereinabove described as the **Holly Shelter Game Land Dedicated Nature Preserve** to be held in trust by the Custodian for the uses and purposes expressed in the Nature Preserves Act at a meeting held in the City of (City Name), North Carolina, on the _____ of _____, (YEAR).

Sincerely,

Gabriel J. Esparza

CONSENTED AND AGREED TO:

_____
Secretary Pamela B. Cashwell
Department of Natural and Cultural Resources

_____
Michael Kyle Briggs, Executive Director
Wildlife Resources Commission

EXHIBIT A-1
HOLLY SHELTER GAME LAND DEDICATED NATURE PRESERVE
(NORTHERN SECTION)

COUNTY: Pender PHYSIOGRAPHIC PROVINCE: Coastal Plain

TOPOGRAPHIC MAPS: Maple Hill SW, Stag Park

SIZE OF AREA: ca. 14,603 acres (8,524 acres Primary Area which includes a Restoration area of 880 acres and a Special Management Area of 68 acres, both described below; 6,079 acres Buffer Area) as shown on Exhibit B-2

OWNER/ADMINISTRATION: State of North Carolina
Wildlife Resources Commission

LOCATION: Includes all of Pender County parcels , 3360-72-2687-0000, 3350-86-8949-0000, 3372-10-5524-0000, 3288-29-5686-0000, 3390-56-5567-0000, 3361-30-3269-0000, and 3361-11-9121-0000, and portions of Pender County Parcel 3279-72-0498-0000 (source "NC OneMap Parcels").

DESCRIPTION: This Property qualifies for Dedication because of the presence of (1) a habitat for individual species of plants or animals that are in danger of or threatened by extirpation, or (2) a rare terrestrial natural community, and after Natural Heritage Program Staff evaluation of the factors presented in 07 NCAC 13H .0202. The northern section is centered on a large complex known as Bear Garden. Though over half of the tract has been converted to loblolly or slash pine plantations and clearcutting of longleaf pine stands has occurred, considerable natural vegetation remains. The eastern half contains natural pocosin vegetation, much of it lying within a very large Carolina bay. Loblolly-bay (*Gordonia lasianthus*) is very common amid the dominant pond pines (*Pinus serotina*) in these pocosins. Some swamp forest exists along Shaken and Ashes creeks in the northern and central portions of this tract. The western portion of the tract borders the Northeast Cape Fear River. Mature Cypress-Gum Swamp vegetation prevails in the floodplain of the river.

The most significant area of the tract for rare plants is the wide powerline clearing that bisects the tract in a NE-SW direction. Numerous populations of “savanna” plants occur in the clearing, which provides suitable habitat owing to regular mowing of the clearing. Among these plants are the Federal and State Endangered golden sedge (*Carex lutea*) and rough-leaf loosestrife (*Lysimachia asperulifolia*), and State Threatened Venus flytrap (*Dionaea muscipula*). Another Watch List plant, twig-rush (*Cladium mariscoides*), grows in a borrow pond adjacent to the powerline clearing.

Many areas within the tract have had the natural canopy altered but still retain natural ground cover and shrub layers, even where the soil has been bedded. These areas, now in slash pine plantations or recently timbered longleaf pine stands, typically contain dense stands of wiregrass (*Aristida*

stricta) or creeping blueberry (*Vaccinium crassifolium*). A wide array of composites and other forbs occur here, and the sub-shrub pyxie-moss (*Pyxidanthera barbulata*) is locally common.

The large extent of the tract allows for a wide array of animal species. The black bear (*Ursus americanus*) is widespread and the uncommon Swainson's warbler (*Limnothlypis swainsonii*) occurs in the nesting season.

BOUNDARY JUSTIFICATIONS: The Primary Area boundaries include the portions in natural vegetation that have generally not been altered by recent timber harvest. Thus, most of the pocosins and the river and creek floodplains are included. A small apparently natural pool/pond just west of Shaw Road is also included in the Primary Area. Areas included in the Primary (Restoration) Area are those that contain a healthy ground and/or shrub layer but with altered canopy – either planted in slash pines or former longleaf pine stands. The entire powerline clearing is included in a Primary (Special Management) Area. Regular mowing or bush-hogging by the utility company has kept the area in a savanna-like condition.

Restoration refers to interventions over a limited term that are planned to return an ecosystem to a more natural species composition, vegetation structure, and ecosystem function, with an expectation that it will then be self-sustaining with appropriate natural area management. For the savanna communities, ongoing periodic prescribed burning that compensates for the missing natural spread of fire will be needed to retain the ecological function of the restored area.

Much of the site is designated as Buffer Area. These areas are mainly loblolly pine plantations, both young and somewhat mature. Though such stands can be harvested and converted to longleaf pine stands, the ground layer beneath loblolly pine stands has typically been so heavily shaded by the dense growth of the young trees that most herbaceous species, such as wiregrass, are eliminated.

MANAGEMENT AND USE: Holly Shelter Game Land will be used primarily for public hunting and other forms of low-intensity recreational use. The Wildlife Resources Commission plans to replant longleaf pine to portions of the tract, restoring Pine Savanna, Wet Pine Flatwoods, and other natural communities. Though there is not a system of trails, the many miles of dirt roads provide opportunities for bird-watching, other nature study, and photography. Because of the presence of Venus flytraps and several species of pitcher-plants on the tract, mainly in the powerline clearing, Commission staff should be alert to potential poaching of these species.

MAP: attached

(January 2006, NC NHP, with minor editorial revisions December 2024 and April 2026)

EXHIBIT A-2

HOLLY SHELTER GAME LAND DEDICATED NATURE PRESERVE (WESTERN SECTION)

COUNTY: Pender PHYSIOGRAPHIC PROVINCE: Coastal Plain

TOPOGRAPHIC MAP: Stag Park

SIZE OF AREA: ca. 512 acres total (391 acres Primary Area; 121 acres Buffer Area) as shown on Exhibit B-3

OWNER/ADMINISTRATION: State of North Carolina
Wildlife Resources Commission

LOCATION: Includes portions of Pender County parcel 3259-23-7557-0000 (source "NC OneMap Parcels").

DESCRIPTION: This Property qualifies for Dedication because of the presence of a rare terrestrial natural community, and after Natural Heritage Program Staff evaluation of the factors presented in 07 NCAC 13H .0202. The western section consists of areas along the Northeast Cape Fear River. It includes the floodplain of the river, and a poorly drained wetland where water flows southward into Burgaw Creek, which forms the southern boundary of the tract. Between these two wetlands are several north-south ridges that have been converted to loblolly pine plantations. An additional area of pine plantations on the west side of this tract is excluded from the dedication. A series of logging roads traverse the tract, and one reaches Burgaw Creek, but there is no direct access to the Northeast Cape Fear River on the tract. A dedicated area that is part of the Cape Fear River Wetlands Game Land lies two miles downstream on the river.

This portion of the Northeast Cape Fear River floodplain is a fairly mature Cypress-Gum Swamp, Blackwater subtype natural community. Laurel oak (*Quercus laurifolia*) is probably the most numerous canopy tree, but red maple (*Acer rubrum*), tupelo (*Nyssa* sp.), bald cypress (*Taxodium distichum*), and sweetgum (*Liquidambar styraciflua*) are also common. Understory trees include American hornbeam (*Carpinus caroliniana*) and willow (*Salix* sp.). Cane (*Arundinaria gigantea*) is very common locally, as is highbush blueberry (*Vaccinium corymbosum*). Of interest in one section of the swamp on the tract is a dominance in the shrub layer of the relatively uncommon dwarf palmetto (*Sabal minor*). A portion of the floodplain closest to the upland ridge, in the northeastern part of the tract, was cut-over a few decades ago and now has reached a canopy height of roughly 60-65 feet.

The poorly drained wetland to the west was also mostly cut-over or clearcut a few decades ago, and its canopy height is now averaging 40-50 feet. The northern portion near a logging road consists mainly of willows. Farther south, bald cypress is scattered among various hardwoods and some

loblolly pines (*Pinus taeda*). One eastern margin of this wetland contains loblolly-bay (*Gordonia lasianthus*) and various pocosin shrubs. At the southern end of this drainage is a mature deciduous forest featuring large cypress trees, a few over 2 feet in trunk diameter.

The higher ridges between the floodplain wetlands are occupied by loblolly pine plantations. These dense stands of pines average 40-50 feet in height, and very little herbaceous vegetation is present beneath the pines. A larger expanse of pine plantation on the west side of the tract is excluded from the dedication.

BOUNDARY JUSTIFICATIONS: The Primary Area consists of the mature swamp forest east of all of the upland ridges, the younger swamp forest to the west of the upland ridges, and riparian areas of at least 100 feet from the top of the stream bank. The Buffer Areas include four sections of managed pine forest on ridges located in the interior of the preserve and therefore important for their connective function. Areas that currently exist in extensive loblolly pine plantations are excluded from the dedication.

MANAGEMENT AND USE: The Primary Area should be left in its natural state, and no management is necessary, including in the areas where some pine is present. The Wildlife Resources Commission plans to restore the upland portions of the tract that are currently in plantations to natural communities. It is hoped that these pine stands can be harvested and planted in longleaf pine seedlings, and then burned on a several-year rotation to return the land to its original condition, which was probably a mix of Wet Pine Flatwoods and other communities dominated by longleaf pine.

Holly Shelter Game Land will be used primarily for public hunting and other forms of low-intensity recreational use.

MAP: attached

(April 2005, NC NHP, with minor editorial revisions December 2024 and April 2026)

EXHIBIT A-3

HOLLY SHELTER GAME LAND DEDICATED NATURE PRESERVE (SOUTHERN SECTION)

COUNTY: Pender PHYSIOGRAPHIC PROVINCE: Coastal Plain

TOPOGRAPHIC MAPS: Topsail, Holly Ridge

SIZE OF AREA: ca. 1,847 acres (1,657 acres Primary Area which includes a Restoration Area of 115 acres, and Special Management Area of 19 acres, both described below; 190 acres Buffer Area) as shown on Exhibit B-4 and C-1

OWNER/ADMINISTRATION: State of North Carolina
Wildlife Resources Commission

LOCATION: Includes all of Pender County parcels 4204-89-6447-0000, 4205-62-6453-0000, 4205-87-3613-0000, , 4216-11-7532-0000, 4215-08-1258-0000, and 4216-40-8863-0000(source "NC OneMap Parcels").

DESCRIPTION: This Property qualifies for Dedication because of the presence of (1) a habitat for individual species of plants of animals that are in danger of or threatened by extirpation, or (2) a rare terrestrial natural community, and after Natural Heritage Program Staff evaluation of the factors presented in 07 NCAC 13H .0202. The southern section consists of several tracts on the sandy relict beach ridge system that forms the southeastern boundary of the Holly Shelter peatland. This area is a complex of low sand ridges interspersed with organic-filled swales and small Carolina bays.

The large Sleepy Creek Farms tract has a majority of its cover as Pond Pine Woodland communities, dominated by pond pine (*Pinus serotina*), sometimes with abundant loblolly bay (*Gordonia lasianthus*), and with characteristically dense shrub layers. Large areas have mature canopy, while other areas have young canopy that appears to have resulted from an intense wildfire. While a minority of the tract acreage, there are extensive patches of longleaf pine communities of a variety of natural community types. Substantial areas appear to be Wet Sandy Pine Savanna (Typic Subtype), supporting herbs of wetter sites along with wiregrass (*Aristida stricta*). The canopy may be mature or young longleaf pine or pond pine in different places. Much area mapped as soil suitable for savanna is overgrown with shrubs at the time of dedication, making it difficult to tell how much savanna is present. A small area in several patches represents the extremely rare Wet Sandy Pine Savanna (Rush Featherling Subtype), occurring on slightly lower areas. It is similar to the Typic Subtype in many ways but with an herb layer dominated by rush featherling (*Pleea tenuifolia*). Both savanna communities support multiple patches of Venus flytrap (*Dionaea muscipula*), a State Threatened species.

Slightly higher areas on the low ridges support Wet Pine Flatwoods communities, dominated by longleaf pine and wiregrass but without the herbs of the wettest savannas. They are more likely to have longleaf pine canopies and to have larger trees. Higher ridges support several sandhill communities, all with open longleaf pine canopies, abundant turkey oak (*Quercus laevis*) and other small hardwoods, and herb layers dominated by wiregrass. Pine/Scrub Oak Sandhill (Coastal Fringe Subtype) occurs on lower ridges, and is marked by sand live oak (*Quercus geminata*) in the midstory or as shrub-size sprouts. Higher ridges support the drier Xeric Sandhill Scrub community. They include some areas of the Coastal Fringe Subtype, which also have sand live oak and the herbs characteristic of the coastal fringe zone. Other high ridges lack these indicator species and are classified as the Typic Subtype. A small population of the rare savanna milkweed (*Asclepias pedicellata*) is present in a sandhill area.

In the southern part of the tract are two small limesink ponds, which support Small Depression Pond (Typic Marsh) communities dominated by maidencane (*Hymenachne hemitoma*). The shrubby margin of one contains the NC Special Concern pondspice (*Litsea aestivalis*).

The middle tract is also biologically rich, though more altered. Nearly all of it had been bedded, but the pines that were planted and harvested on parts of the tract were replanted. The ground cover consists almost wholly of low shrubs and saplings not reaching more than 3-4 feet tall at the time it was dedicated. Most of these species are broadleaf evergreens typical of pocosins and flatwoods, such as shining gallberry (*Lyonia lucida*), inkberry (*Ilex glabra*), and redbay (*Persea palustris*). The tract harbors perhaps the state's largest population of coastal witch-alder (*Fothergilla gardenii*), a deciduous shrub. Of most importance is the diverse array of herbaceous species, growing mainly in wet spots in the furrows or in old logging tracks. Venus flytrap (*Dionaea muscipula*) is fairly common in this area. In addition, at least eight other carnivorous plants are present: three pitcher-plants, three sundews, a butterwort, and a bladderwort. The wet areas contain an abundance of the locally scarce rush-featherling (*Pleea tenuifolia*), and considerable diversity of sedges (*Carex, Rhynchospora,* etc.) is also present. The Watch List Carolina goldenrod (*Solidago pulchra*) was previously reported from the tract and likely is still present.

Portions of the southern end of this tract contain sandy uplands that were clearcut and are now regenerating in saplings. Scattered young longleaf pines (*Pinus palustris*) and turkey oaks (*Quercus laevis*) are common. The presence of live oak (*Q. virginiana*), sand live oak (*Q. geminata*), wild olive (*Osmanthus americana*), and yaupon holly (*Ilex vomitoria*) indicates a Coastal Fringe Sandhill natural community. Embedded between the sandy areas are one or two small Carolina bays with pocosin vegetation, either High Pocosin or Pond Pine Woodland natural community. Loblolly-bay (*Gordonia lasianthus*) is common in these bays, as is honey-cups (*Zenobia pulverulenta*).

The eastern tract consists of a loblolly pine (*Pinus taeda*) plantation on bedded terrain, with the trees averaging roughly 25 feet tall and only 5-6 inches in trunk diameter at the time of dedication. Beneath the pines grow dense carpets of creeping blueberry (*Vaccinium crassifolium*), many stands of pyxie-moss (*Pyxidanthera barbulata*), and considerable abundance of chalky bluestem

(*Andropogon glaucopsis*). However, wiregrass (*Aristida stricta*) and most other herbaceous plants typical of savannas and flatwoods are in poor condition or absent, due to shading by pines or lack of fire.

The most significant portion of the eastern tract is a natural limesink pond, surrounded by dense pocosin vegetation, that lies along the southern tract boundary. Such ponds are rather rare in the state, and few lie in conservation ownership.

BOUNDARY JUSTIFICATIONS: Most of the southern, Sleepy Creek Farms, tract is dedicated as Primary Area. A small portion of the eastern tract, near its southern boundary, contains a natural limesink pond, a somewhat rare community type, and is included in the Primary Area.

A couple areas are dedicated as Primary (Restoration) Area, one at the north end where a savanna patch has a dense canopy that could benefit from thinning, one where a flatwoods patch has a loblolly pine canopy with reasonably intact ground cover. The middle tract, north of a dirt road, is included within a Primary (Restoration) Area designation, as the only management needed is prescribed burning on a several-year cycle. Though longleaf pine seedlings could be planted on the ridges, this is probably not essential.

Restoration refers to interventions over a limited term that are planned to return an ecosystem to a more natural species composition, vegetation structure, and ecosystem function, with an expectation that it will then be self-sustaining with appropriate natural area management. For the sandhill, flatwoods, and savanna communities, ongoing periodic prescribed burning that compensates for the missing natural spread of fire will be needed to retain the ecological function of the restored area.

A large powerline corridor is included as a Special Management Area. Though not well explored, it is a type of habitat that is likely to harbor rare species. Special Management Areas are delineated in places which retain some natural features (e.g., rare species populations), but may be maintained for other purposes (e.g., utility line right-of-way). While it is important that populations of rare species be managed and protected, recognizing the right-of-way as a Special Management Area allows for the continued maintenance for the utility, while encouraging stewardship for the benefit of the rare species to the extent possible when compatible with existing uses.

Several patches of bedded pine plantation are included as Buffer. The portion of this tract lying south of the east-west dirt road is included in a Buffer Area. This is a sandy-soil section of loblolly pine plantation that has potential for restoration to a Coastal Fringe Sandhill or a Xeric Sandhill Scrub community. Most of the eastern tract is treated as Buffer. The bedded pine plantation there would be difficult to restore to a high-quality natural community.

MANAGEMENT AND USE: The most important management need in this section is prescribed burning, at frequent intervals, in all of the longleaf pine communities. The natural communities and rare plant populations have deteriorated in the years without fire, but are expected to recover to high quality if the fire regime is restored. Inclusion of the Pond Pine Woodland communities in

burn units is encouraged whenever it can be done safely. Firebreaks should use existing roads and trails as much as possible. However, some existing roads and trails through the savannas harbor the densest, sometimes the only, remnants of rare plant populations. In these cases, new firebreaks may have less impact. Construction of firebreaks through Pond Pine Woodland rather than through savannas with intact ground cover is encouraged.

No problems with invasive exotic species have been identified, but the area should be monitored for the appearance of new invasive species, and new infestations should be treated promptly. Of particular concern is cogon grass (*Imperata cylindrica*), which is a threat to intact longleaf pine communities farther south.

Holly Shelter Game Land will be used primarily for public hunting and other forms of low-intensity recreational use. A new route for the Mountains to Sea Trail is being constructed on the Sleepy Creek Farms tract. The route largely follows existing forest roads, and the siting will be planned in cooperation with the Natural Heritage Program to minimize impact. The trail and surrounding area should be monitored to ensure that significant impact due to heavy traffic is not occurring. If unacceptable impacts are found, trail use should be managed or the trail rerouted. Poaching of Venus flytraps is a particular concern.

The Wildlife Resources Commission has indicated plans to restore longleaf pine and re-establish wiregrass in the middle and eastern tracts. Similar treatment is encouraged in the Primary (Restoration) Areas in the Sleepy Creek Farms tract. One of these areas may benefit from thinning of the dense canopy.

The Special Management Area in the powerline corridor should, if possible, be maintained by burning or, if necessary, mowing. Herbicide use should be avoided. Mowing should be done when the ground is dry, to minimize future rutting.

MAP: attached

(May 2005 & December 2024 NC NHP)

EXHIBIT A-4

HOLLY SHELTER GAME LAND DEDICATED NATURE PRESERVE (CENTRAL SECTION POCOSIN HYDROLOGY RESTORATION AREA)

COUNTY: Pender PHYSIOGRAPHIC PROVINCE: Coastal Plain

TOPOGRAPHIC MAPS: Topsail, Holly Ridge

SIZE OF AREA: ca. 15,780 acres, all Primary (Restoration) Area as shown on Exhibit B-5 and C-2

OWNER/ADMINISTRATION: State of North Carolina
Wildlife Resources Commission

LOCATION: Includes portions of Pender County parcel 3297-65-0205-0000 (source "NC OneMap Parcels").

DESCRIPTION: This Property qualifies for Dedication because of the presence of (1) a habitat for individual species of plants of animals that are in danger of or threatened by extirpation, (2) a rare terrestrial natural community, and after Natural Heritage Program Staff evaluation of the factors presented in 07 NCAC 13H .0202.

The Central Section Pocosin Hydrology Restoration Area encompasses the majority of a large peatland, one of the larger peatlands in the state. Though not intensively ditched, deep ditches associated with a low-density network of roads have led to significant drainage of the peatland. The Hydrology Restoration Plan is designed to reduce this alteration. Several large wildfires have burned though the peatland in the last 50 years during drought periods. With the drainage, they have resulted in consumption of upper layers of peat over significant areas, reducing the elevation of the surface in some areas. The restoration of more natural, wetter hydrology is expected to prevent such peat consumption in future fires.

The area has historically represented a mix of Low Pocosin (Titi Subtype) and High Pocosin (Evergreen Subtype) natural communities. The Low Pocosin, when last studied years ago, was a dense thicket of low shrubs, primarily honeycups (*Zenobia pulverulenta*) and titi (*Cyrilla racemiflora*). Substantial areas of Pocosin Opening (Pitcher Plant Subtype) communities also occurred in a mosaic with it. These communities are remote from roads and inaccessible. It is uncertain what the wildfires may have done to them, nor how much drainage affected them, but they are likely to remain in relatively natural condition. The High Pocosin community is dominated by a dense, tall shrub layer consisting mainly of titi, fetterbush (*Lyonia lucida*), and sweet gallberry (*Ilex coriacea*). Varying amounts of pond pine (*Pinus serotina*) and small hardwood trees are present. Portions of the High Pocosin have recovered from the wildfires and are in relatively natural condition. Other parts, where peat burned, have altered vegetation dominated by weedy species such as wax

myrtle (*Morella cerifera*), plume grass (*Erianthus* sp.), and wooly bulrush (*Scirpus cyperinus*). The most deeply burned areas have standing water much of the time and support aquatic species such as water lilies (*Nymphaea odorata*). These areas are expected to recover to natural High Pocosin vegetation slowly, but will require much time for the missing peat to again accumulate.

Smaller areas of Pond Pine Woodland occur on the southern and western edges of the restoration area. Some are recovering from the wildfires while others are more altered by the drainage and have uncharacteristic species such as red maple (*Acer rubrum*). They too are expected to recover with time and to benefit from more natural hydrology.

Several rare species have been found in the restoration area. A cavity tree cluster of red-cockaded woodpecker (*Leuconotopicus borealis*) has been inactive in recent years. Pygmy rattlesnake (*Sistrurus miliarius*) have been found on the edges of the pocosin. Northern white beaksedge (*Rhynchospora alba*) was found in the pocosins but the precise location is not known.

BOUNDARY JUSTIFICATIONS: The Central Section Pocosin Hydrology Restoration Area encompasses most of the peatland, including area that is most impacted by ditches and prior fire history and most of the area included in the Hydrology Restoration Plan. The boundary is marked by roads in most places. As shown on Map C-2, a few small features are excluded from the dedicated area, including two culvert crossings, the area immediately around the dike, an 11-acre wildlife opening, and approximately 30,000 linear feet of roller-chopped lines maintained for hunter access and fire suppression.

Restoration refers to interventions over a limited term that are planned to return an ecosystem to a more natural species composition, vegetation structure, and ecosystem function, with an expectation that it will then be self-sustaining with appropriate natural area management. In the case of the Central Pocosin Hydrological Restoration Area, ongoing maintenance and appropriate management of the water control structures will be needed to retain the more natural hydrology in the presence of the ditch and road infrastructure that is already present on the site.

MANAGEMENT AND USE: The principle management of this section will be the implementation of the Hydrology Restoration Plan, including maintenance and management of the water control structures and monitoring of their effect on water levels and vegetation. Details and obligations for management are indicated in the Hydrology Restoration Plan. Provisions for management, including compliance with the terms of the Hydrology Restoration Plan are expected to be coordinated through a corresponding Memorandum of Understanding (MOU) or other agreement with The Custodian and The Nature Conservancy and the North Carolina Department of Natural and Cultural Resources.

Roads in and along the boundaries of the Central Section Pocosin Hydrology Restoration Area may be raised by adding fill material and maintained as called for in the Hydrology Restoration Plan and MOU.

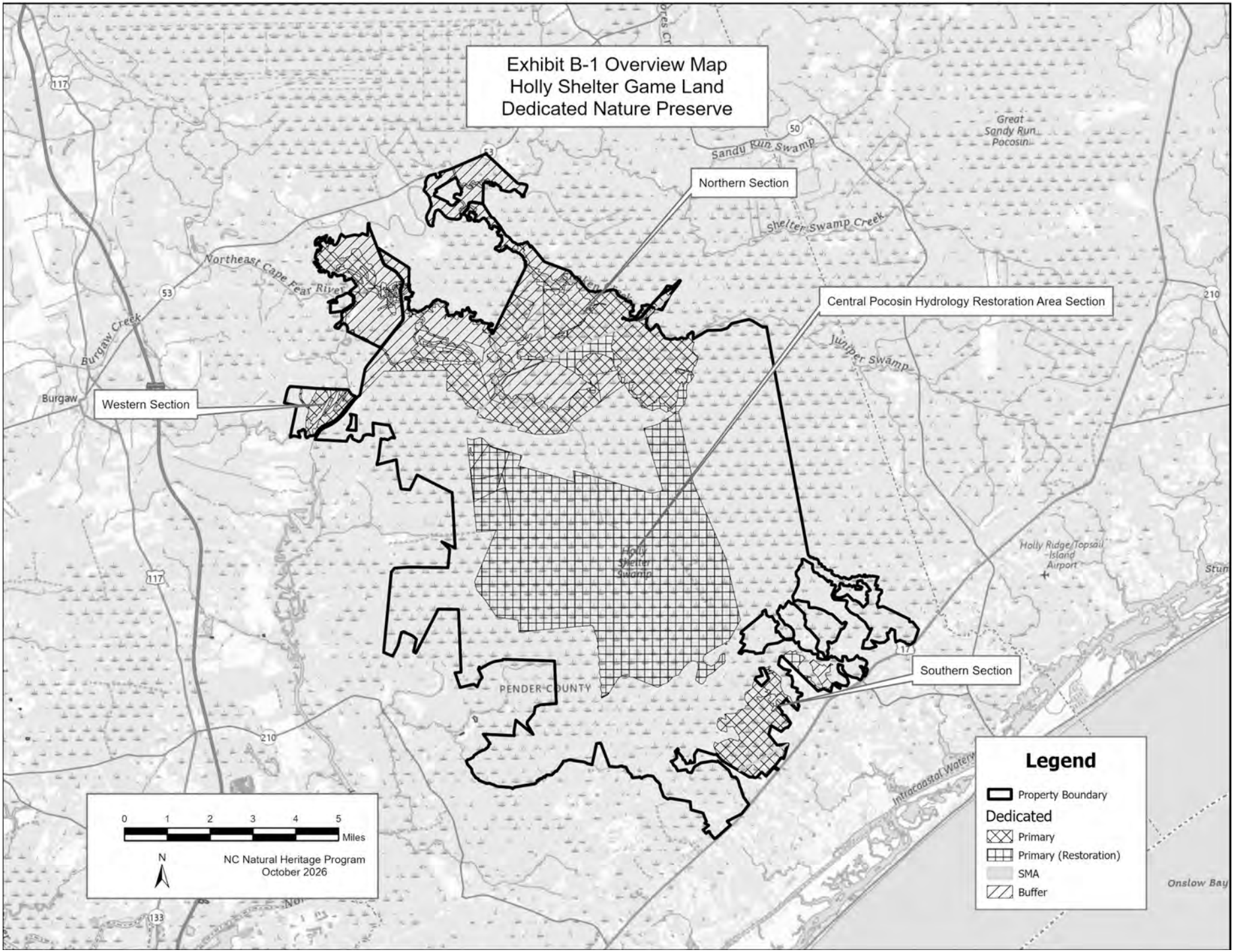
This section, as the rest of Holly Shelter Game Land. will be used primarily for public hunting and other forms of low-intensity recreational use. A portion of the Mountains to Sea Trail runs along roads through this section. Several paths are mowed annually to provide access to the pocosin for hunters. Additionally, there may be short trails cut into the pocosin to access long term vegetation monitoring plots.

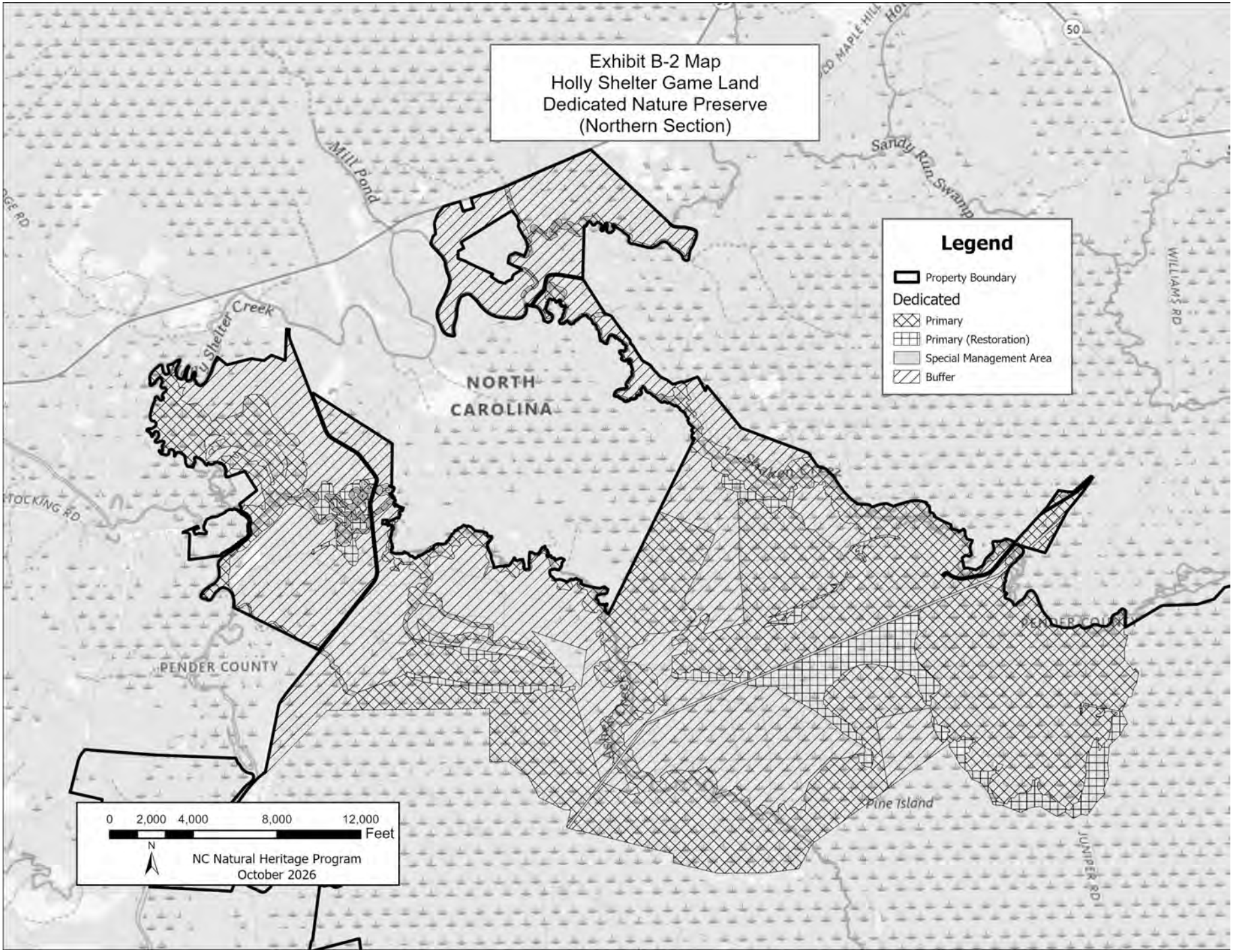
No problems with invasive exotic species have been identified, but the area should be monitored for the appearance of new invasive species, and new infestations should be treated promptly.

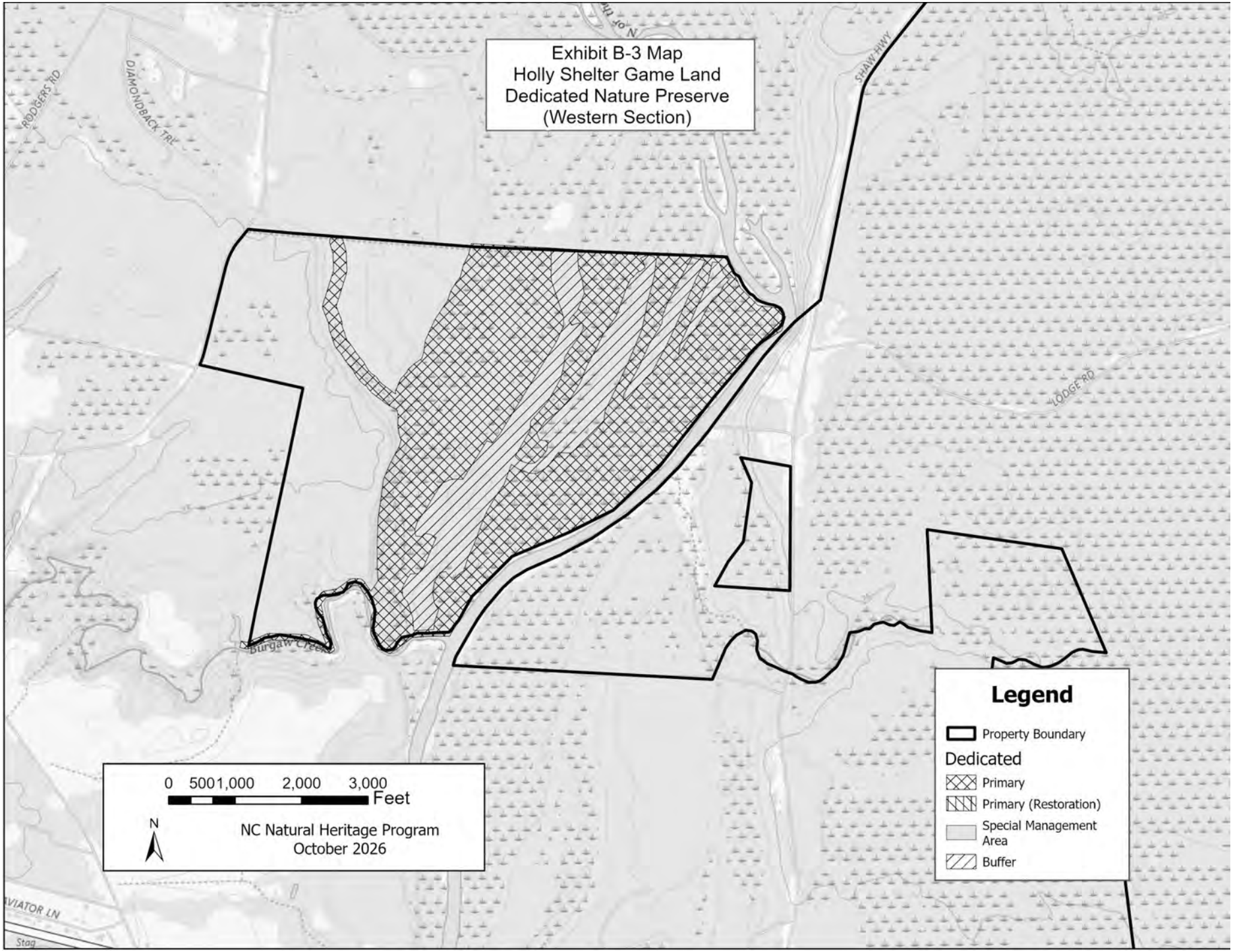
The pocosin communities that make up this section are naturally prone to burning under dry conditions. While peat fires are considered detrimental, burning of above-ground vegetation is believed to be beneficial. Prescribed burning is encouraged if means can be developed to do it safely.

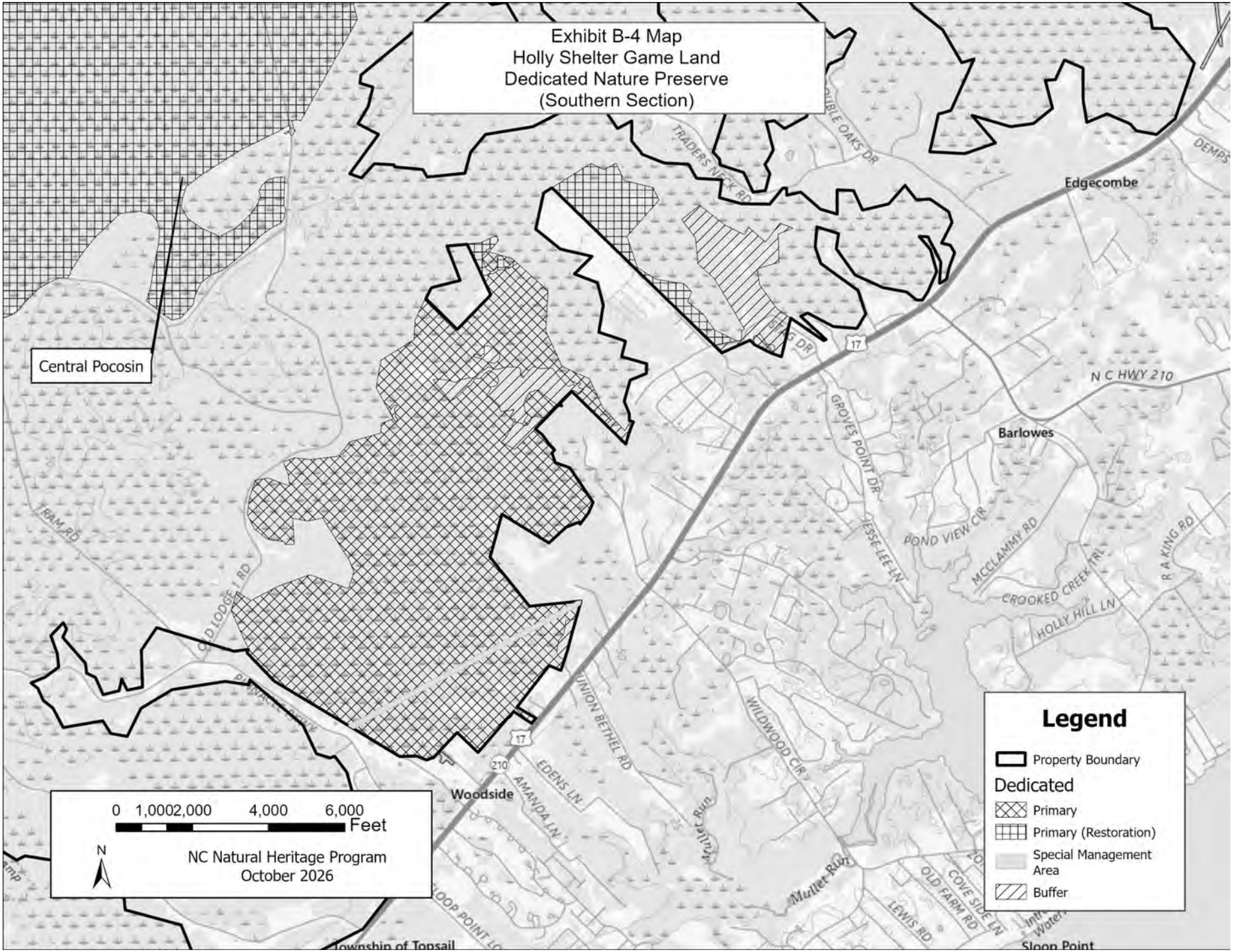
MAP: attached

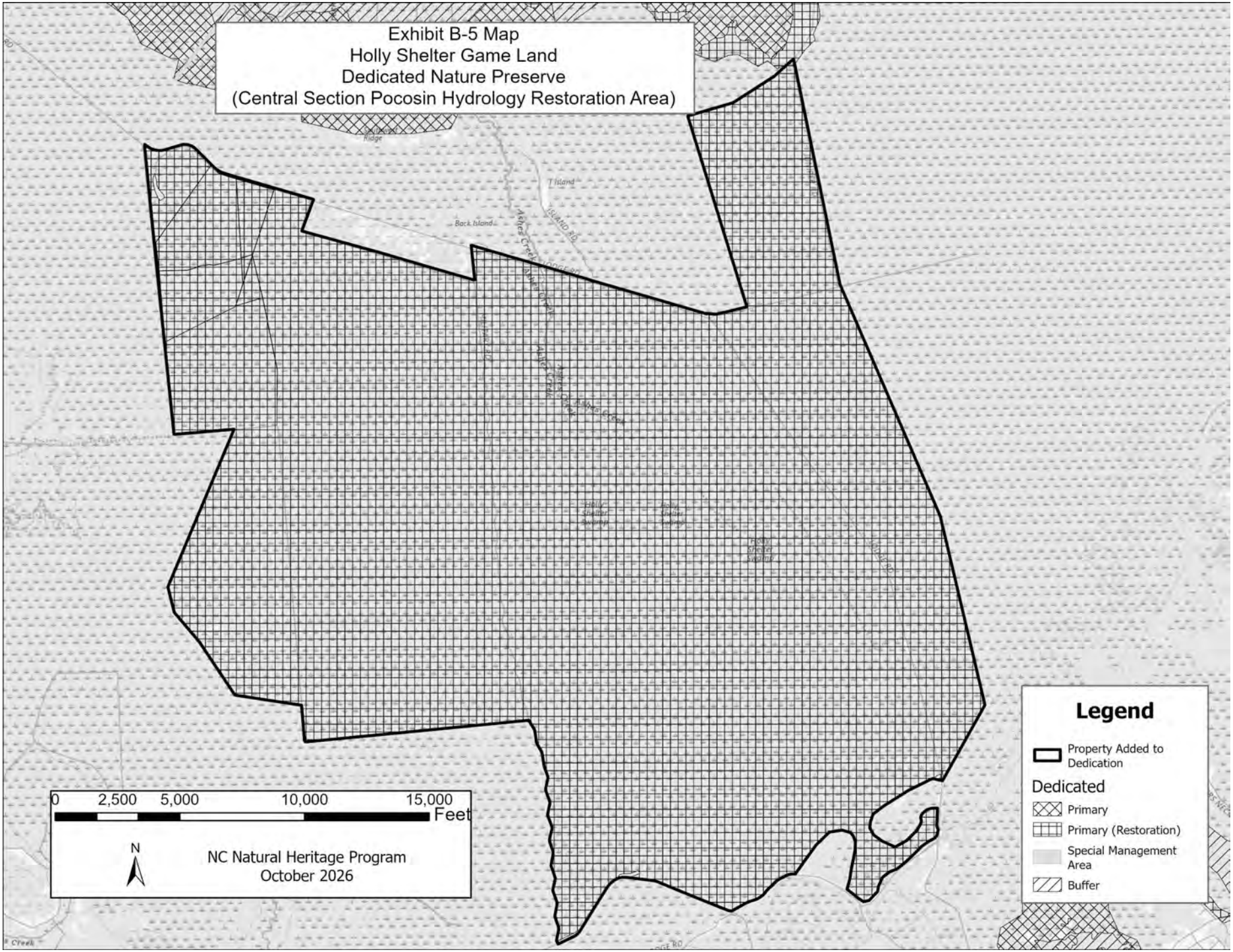
(April 2026 NC NHP

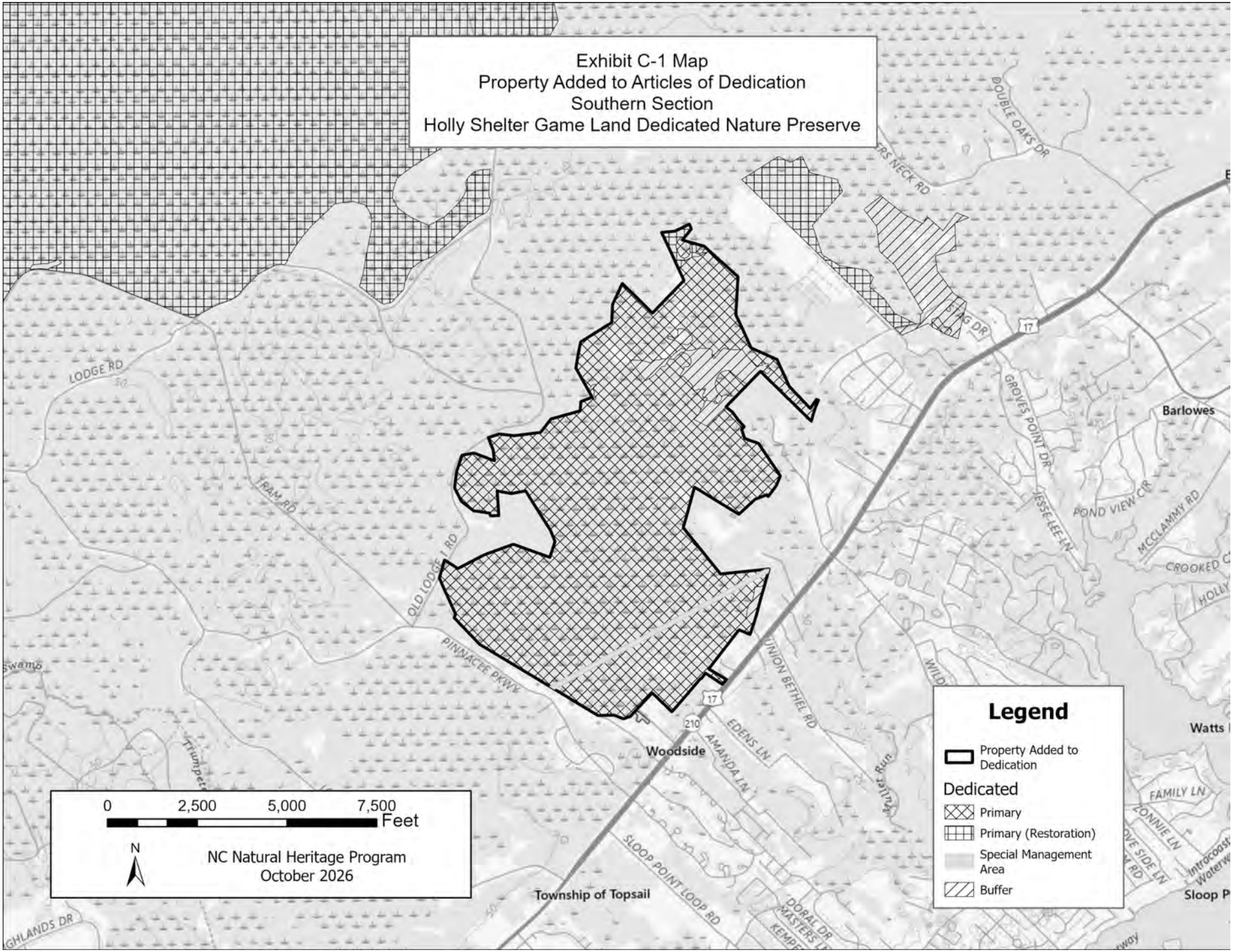

Exhibit B-1 Overview Map
Holly Shelter Game Land
Dedicated Nature Preserve
Northern Section
Central Pocosin Hydrology Restoration Area Section
Western Section
Southern Section
Great Sandy Run Pocosin
Sandy Run Swamp
Shelter Swamp Creek
Northeast Cape Fear River
Burgaw Creek
Juniper Swamp
Burgaw
Holly Ridge/Topsail Island Airport
Holly Shelter Swamp
PENDER COUNTY
Intracoastal Waterway
Onslow Bay
117
50
53
210
133
Legend
Property Boundary
Dedicated
Primary
Primary (Restoration)
SMA
Buffer
0 1 2 3 4 5
Miles
N
NC Natural Heritage Program
October 2026

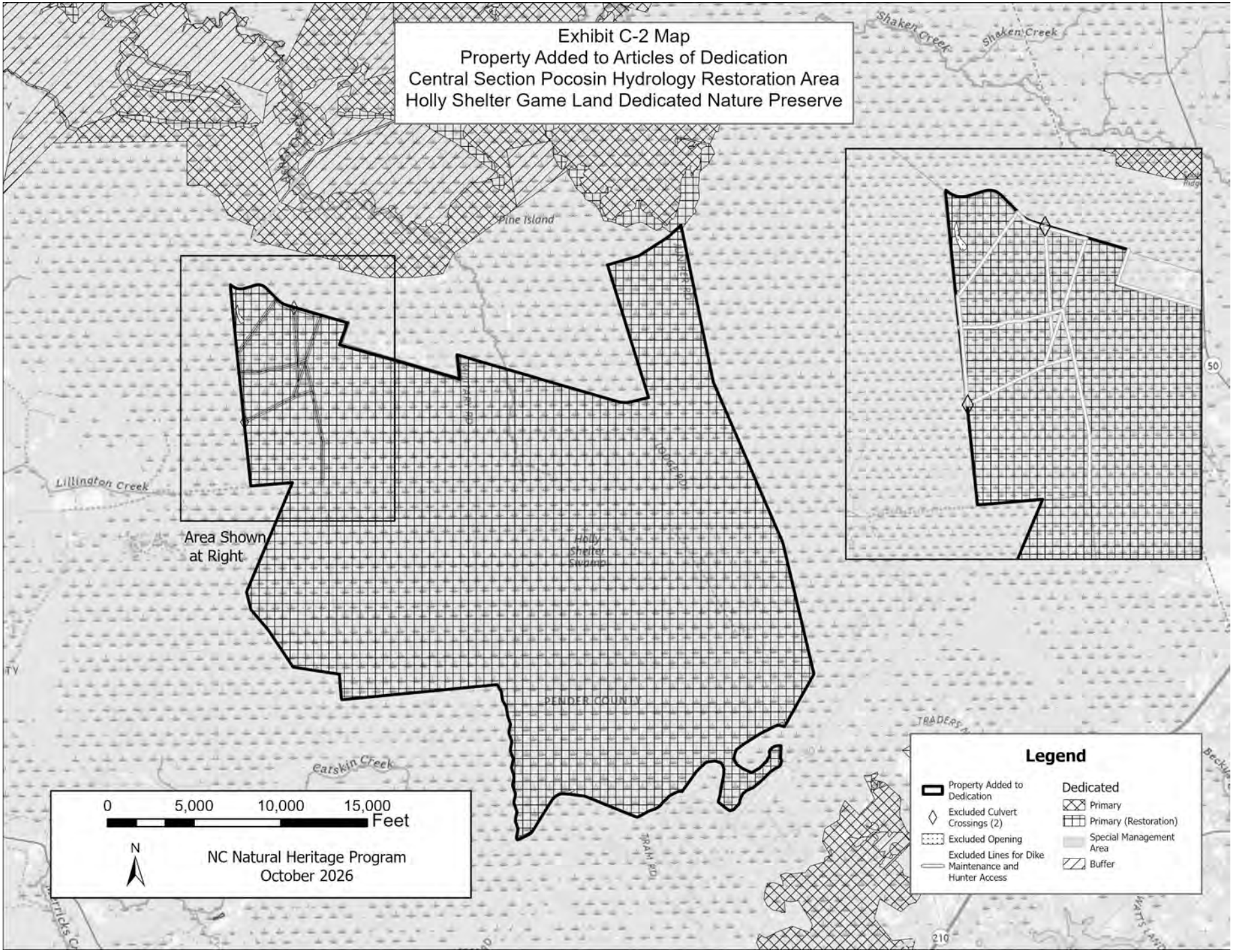

Exhibit B-2 Map
Holly Shelter Game Land
Dedicated Nature Preserve
(Northern Section)
Legend
Property Boundary
Dedicated
Primary
Primary (Restoration)
Special Management Area
Buffer
NORTH CAROLINA
PENDER COUNTY
Mill Pond
Sandy Run Swamp
Holly Shelter Creek
Shaken Creek
Pine Island
WILLIAMS RD
JUNIPER RD
50
0 2,000 4,000 8,000 12,000
Feet
N
NC Natural Heritage Program
October 2026


Exhibit B-3 Map
Holly Shelter Game Land
Dedicated Nature Preserve
(Western Section)
RODGERS RD
DIAMONDBACK TRL
SHAW HWY
LODGE RD
Burgaw Creek
0 500 1,000 2,000 3,000
Feet
N
NC Natural Heritage Program
October 2026
Legend
Property Boundary
Dedicated
Primary
Primary (Restoration)
Special Management Area
Buffer


Exhibit B-4 Map
Holly Shelter Game Land
Dedicated Nature Preserve
(Southern Section)
Central Pocosin
Edgecombe
Barlowes
Woodside
Township of Topsail
Sloop Point
N C HWY 210
17
210
TRADERS NECK RD
DOUBLE OAKS DR
GROVES POINT DR
JESSE LEE LN
POND VIEW CIR
MCCLAMMY RD
CROOKED CREEK TRL
HOLLY HILL LN
R A KING RD
TRAM RD
OLD LODGE LN
UNION BETHEL RD
WILDWOOD CIR
EDENS LN
AMANDA LN
Muller Run
OLD FARM RD
COVE SIDE LN
LEWIS RD
0 1,0002,000 4,000 6,000
Feet
N
NC Natural Heritage Program
October 2026
Legend
Property Boundary
Dedicated
Primary
Primary (Restoration)
Special Management Area
Buffer


Exhibit B-5 Map
Holly Shelter Game Land
Dedicated Nature Preserve
(Central Section Pocosin Hydrology Restoration Area)
T Island
Back Island
ISLAND RD
Alder Creek
Alder Creek
Alder Creek
Alder Creek
Holly Shelter Swamp
Holly Shelter Swamp
Holly Shelter Swamp
HOLLY SHELTER RD
0 2,500 5,000 10,000 15,000
Feet
N
NC Natural Heritage Program
October 2026
Legend
Property Added to Dedication
Dedicated
Primary
Primary (Restoration)
Special Management Area
Buffer


Exhibit C-1 Map
Property Added to Articles of Dedication
Southern Section
Holly Shelter Game Land Dedicated Nature Preserve
Legend
Property Added to Dedication
Dedicated
Primary
Primary (Restoration)
Special Management Area
Buffer
0
2,500
5,000
7,500
Feet
N
NC Natural Heritage Program
October 2026
Woodside
Township of Topsail
Barlowes
LODGE RD
TRAM RD
OLD LODGE RD
PINNACEE PKWY
UNION BETHEL RD
EDENS LN
AMANDA LN
SLOOP POINT LOOP RD
DOUBLE OAKS DR
STAG DR
GROVES POINT DR
JESSE LEE LN
POND VIEW CIR
MCCLAMMY RD
FAMILY LN
LONNIE LN
17
210


Exhibit C-2 Map
Property Added to Articles of Dedication
Central Section Pocosin Hydrology Restoration Area
Holly Shelter Game Land Dedicated Nature Preserve
Shaken Creek
Shaken Creek
Pine Island
Lillington Creek
Area Shown at Right
Holly Shelter Swamp
PENDER COUNTY
Earskin Creek
50
210
0 5,000 10,000 15,000 Feet
N
NC Natural Heritage Program
October 2026
Legend
Property Added to Dedication
Excluded Culvert Crossings (2)
Excluded Opening
Excluded Lines for Dike Maintenance and Hunter Access
Dedicated
Primary
Primary (Restoration)
Special Management Area
Buffer

NORTH CAROLINA REGISTRY OF NATURAL HERITAGE AREAS

Letter of Intent and Agreement
to Register and Protect Natural Areas

WHEREAS, a portion of the natural area known as Schulkens Savanna, consisting of approximately 178 acres, is owned by Raccoon Silva, LLC. [Exhibit A]

WHEREAS, this area possesses the following natural values, justifying its recognition by the State as an outstanding part of the natural heritage of North Carolina:

> Schulkens Savanna natural area includes remnants of an extensive series of pine savannas of the very rare Wet Loamy Pine Savanna type, occurring only on soils with limestone near the surface. A high concentration of the rare plant species associated with this kind of savanna has been found here, including State Threatened Carolina grass-of-parnassus (*Parnassia caroliniana*), State Endangered hooded pitcher plant (*Sarracenia minor var. minor*), State Endangered wireleaf dropseed (*Sporobolus teretifolius*), State Threatened Pineland plantain (*Plantago sparsiflora*), State Threatened Venus flytrap (*Dionaea muscipula*), and others. Much of the original extensive savanna was converted to pine plantation in recent decades, and lack of fire has led to severe deterioration of the remaining community. Most of the plants have not been observed recently. The area is significant as a remnant that has potential to be restored to more natural condition with beneficial management.

AGREEMENT

The Registry Agreement is a mutual understanding between Raccoon Silva, LLC and the North Carolina Department of Natural and Cultural Resources to protect outstanding examples of the natural diversity occurring in North Carolina and preserve unique and unusual natural features. In addition to an approach by landowners and managers that follows these principles and strives to maintain natural character and integrity, the North Carolina Natural Heritage Program submits the following site-specific management recommendations:

> The site is in urgent need of burning, and ultimate restoration will depend on a program of regular prescribed fire. To reverse the deterioration of the savanna caused by past lack of fire, burning should ideally be done every two years, or even every year for some time. Once restoration is complete, burning should be about every 2-3 years.
>
> Additional restoration treatments may be appropriate. A more detailed plan should be made in consultation with the Natural Heritage Program and updated as needed. Tall shrubs now dominate much of the formerly grassy savanna, and young slash pine make up most of the canopy over large parts. There may be a place for mulching the woody growth or thinning the pines, but the clay-rich soils will be

very prone to rutting, and the pine needles are needed to fuel the needed fires. It is also recommended to monitor for invasive exotic species, and control if necessary.

THEREFORE, it is agreed between the parties whose names are affixed below that the portions of the Schulkens Savanna natural area owned by Raccoon Silva, LLC be entered on the official North Carolina Registry of Natural Heritage Areas on the _____day of _____, 2026.

It is understood that this agreement involves no change of title or loss of ownership rights, but simply expresses the sincere intentions of the landowner to refrain from making or permitting changes that alter the natural values for which this area was registered within the boundaries outlined on the attached maps and/or survey descriptions.

It is further understood that neither the Department nor Raccoon Silva, LLC offers any assurances as to the conditions on the tracts involved or for the safety of persons thereon. Neither party shall incur any liability for any injury to persons or property on the land as a result of this agreement.

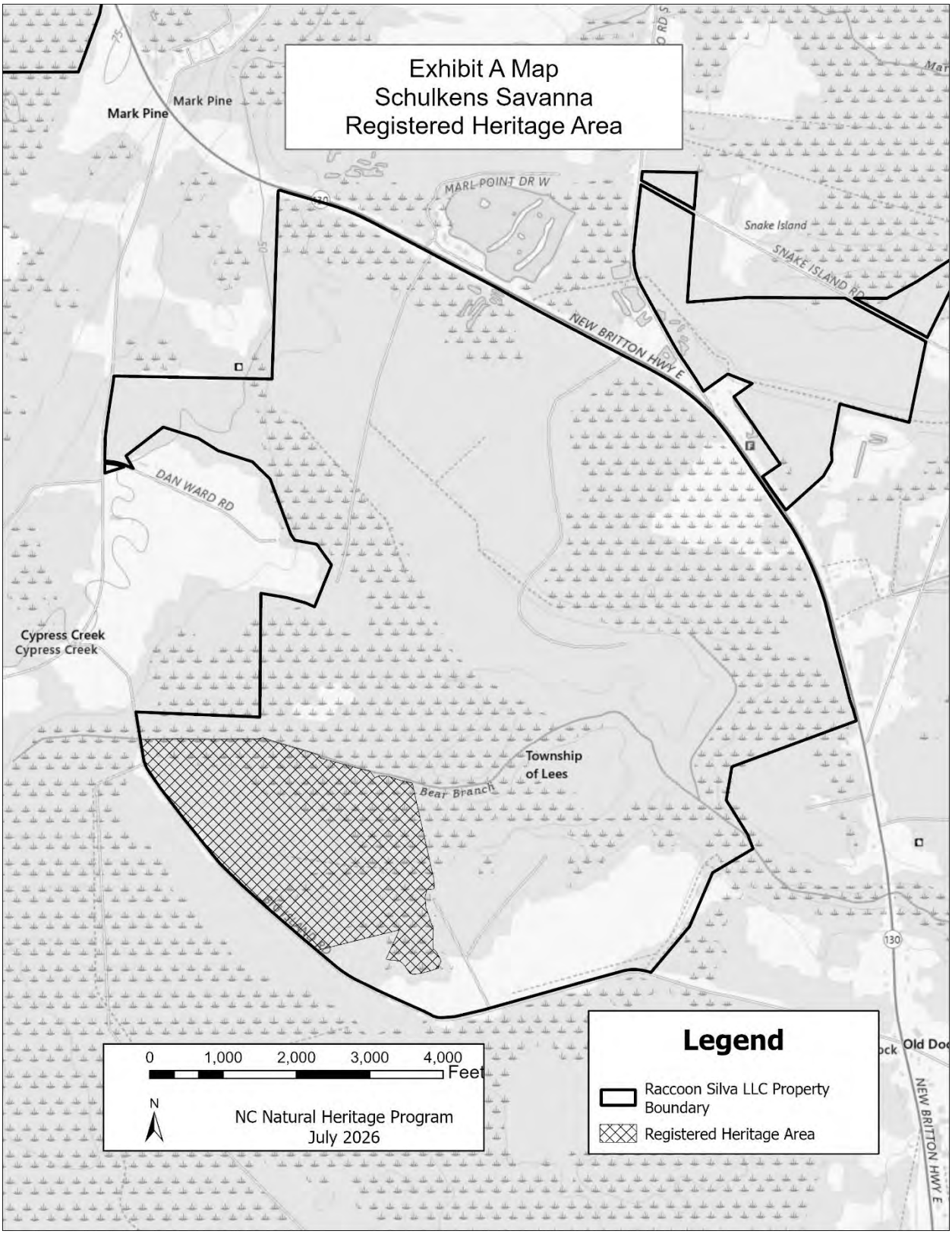
These areas are hereby registered for an indefinite period until terminated in writing by either party to the other upon thirty (30) days' notice.

By_____
Wes Pruett
Vice-President
Raccoon Silva, LLC
8809 Lenox Pointe Dr, Suite B
Charlotte, NC 28273

Date: _____

By_____
Pamela B. Cashwell
Secretary
NC Department of Natural and Cultural Resources
4601 Mail Service Center
Raleigh, North Carolina 27699-1601

Date:_____


Exhibit A Map
Schulkens Savanna
Registered Heritage Area
Mark Pine
Mark Pine
MARL POINT DR W
Snake Island
SNAKE ISLAND RD
NEW BRITTON HWY E
DAN WARD RD
Cypress Creek
Cypress Creek
Township
of Lees
Bear Branch
0 1,000 2,000 3,000 4,000
Feet
N
NC Natural Heritage Program
July 2026
Legend
Raccoon Silva LLC Property Boundary
Registered Heritage Area
NEW BRITTON HWY E

NORTH CAROLINA REGISTRY OF NATURAL HERITAGE AREAS

Letter of Intent and Agreement
to Register and Protect Natural Areas

WHEREAS, a portion of the natural area known as Cypress Creek Bay, consisting of approximately 125 acres, is owned by Raccoon Silva, LLC. [Exhibit A]

WHEREAS, this area possesses the following natural values, justifying its recognition by the State as an outstanding part of the natural heritage of North Carolina:

> Cypress Creek Bay natural area contains the largest known population of threadleaf sundew (*Drosera filiformis var filiformis*) in North Carolina. It also supports several other rare plant species, examples of natural communities and endangered animal species. Other rare species known from the site include: State Threatened Savanna indigo-bush (*Amorpha confusa*), State Threatened Venus flytrap (*Dionaea muscipula*), Hooker's milkwort (*Senega hookeri*), State Threatened Carolina grass-of-Parnassus (*Parnassia caroliniana*), and State endangered hooded pitcher plant (*Sarracenia minor var. minor*). The global population of Savanna indigo-bush (*Amorpha confusa)* is restricted to Columbus and Brunswick counties, North Carolina. The Cypress Creek Bay population is one of only two known in Columbus County. Most of the rare plants are in a powerline corridor, and there is hope that suitable habitat could be restored adjacent to it, into which the plants could spread. Other parts of the registered area include relatively recently harvested areas and a more mature wetland forest.

AGREEMENT

The Registry Agreement is a mutual understanding between Raccoon Silva, LLC and the North Carolina Department of Natural and Cultural Resources to protect outstanding examples of the natural diversity occurring in North Carolina and preserve unique and unusual natural features. In addition to an approach by landowners and managers that follows these principles and strives to maintain natural character and integrity, the North Carolina Natural Heritage Program submits the following site-specific management recommendations:

> Management should focus on maintaining the rare plant populations. Many of the plants are in heavily altered locations such as a mowed powerline corridor and a ditch. There is a need to prevent use of herbicide in the areas where they occur, but mowing or hand cutting of shrubs may be needed to keep them open. Management of hydrology in the ditches may be needed.
>
> The longleaf pine forest communities here are now heavily altered, and management should be aimed at restoring them, particularly near the rare plant populations. It is hoped that restoration will allow the rare plants to spread into more natural restored habitat, where they would be less at risk. The most crucial

need for restoration is prescribed burning. In the longer term, mechanical control of trees and shrubs may be needed if burning is not effective, and planting of longleaf pine will likely be needed. Details of restoration plans should be determined in consultation with the Natural Heritage Program.

Ideally, restoration of the longleaf pine forest community would be considered. Most of the site has developed a dense understory with loss of herb layer but has potential for longleaf pine community restoration. Longleaf pine habitat should be managed to promote natural community structure and composition, and needs regular burning to maintain high-quality flatwoods and remnant plant species.

THEREFORE, it is agreed between the parties whose names are affixed below that the portions of the Cypress Creek Bay natural area owned by Raccoon Silva, LLC be entered on the official North Carolina Registry of Natural Heritage Areas on the _____day of _____, 2026.

It is understood that this agreement involves no change of title or loss of ownership rights, but simply expresses the sincere intentions of the landowner to refrain from making or permitting changes that alter the natural values for which this area was registered within the boundaries outlined on the attached maps and/or survey descriptions.

It is further understood that neither the Department nor Raccoon Silva, LLC offers any assurances as to the conditions on the tracts involved or for the safety of persons thereon. Neither party shall incur any liability for any injury to persons or property on the land as a result of this agreement.

These areas are hereby registered for an indefinite period until terminated in writing by either party to the other upon thirty (30) days' notice.

By_____
Wes Pruett
Vice-President
Raccoon Silva, LLC
8809 Lenox Pointe Dr, Suite B
Charlotte, NC 28273

Date: _____

By_____
Pamela B. Cashwell
Secretary
NC Department of Natural and Cultural Resources
4601 Mail Service Center
Raleigh, North Carolina 27699-1601

Date:_____


Exhibit A Map
Cypress Creek Bay
Registered Heritage Area
HWY E
HUMMINGBIRD LN
Cypress Creek Bay
Mark Pine
Mark Pine
0
1,000
2,000
3,000
4,000
Feet
N
NC Natural Heritage Program
July 2026
Legend
Raccoon Silva LLC Property Boundary
Registered Heritage Area