

2025 Chatham County Natural Areas Inventory

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Haw River, Chatham County.

Outline

- Introduce the inventory effort
- Define key NC Natural Heritage Program terminology
- Highlight main inventory results
- Discuss resources and conservation tools
- Chatham County utilization

Status of County Natural Area Inventories in North Carolina

March 2025

County Inventories



Note: APES = Albemarle-Pamlico Estuarine Study. APES Regional Inventories cover multiple counties and were completed in three phases: Phase I in 1990, Phase II in 1992, and Phase III in 1993.

NC Natural Heritage Program (NCNHP) Terminology

NCNHP Natural Areas: An area of land or water important for preservation of the natural biodiversity of North Carolina.

- Contain rare species, unique natural communities, important animal assemblages, or other ecological features.

Aquatic Habitat: Similar to terrestrial natural areas, they represent the waters that are of most importance to North Carolina's biodiversity and are defined based on the actual presence of rare species.

- Conservation is the primary objective.



1992 Survey Results

Figure 1. Distribution of Chatham County Natural Areas



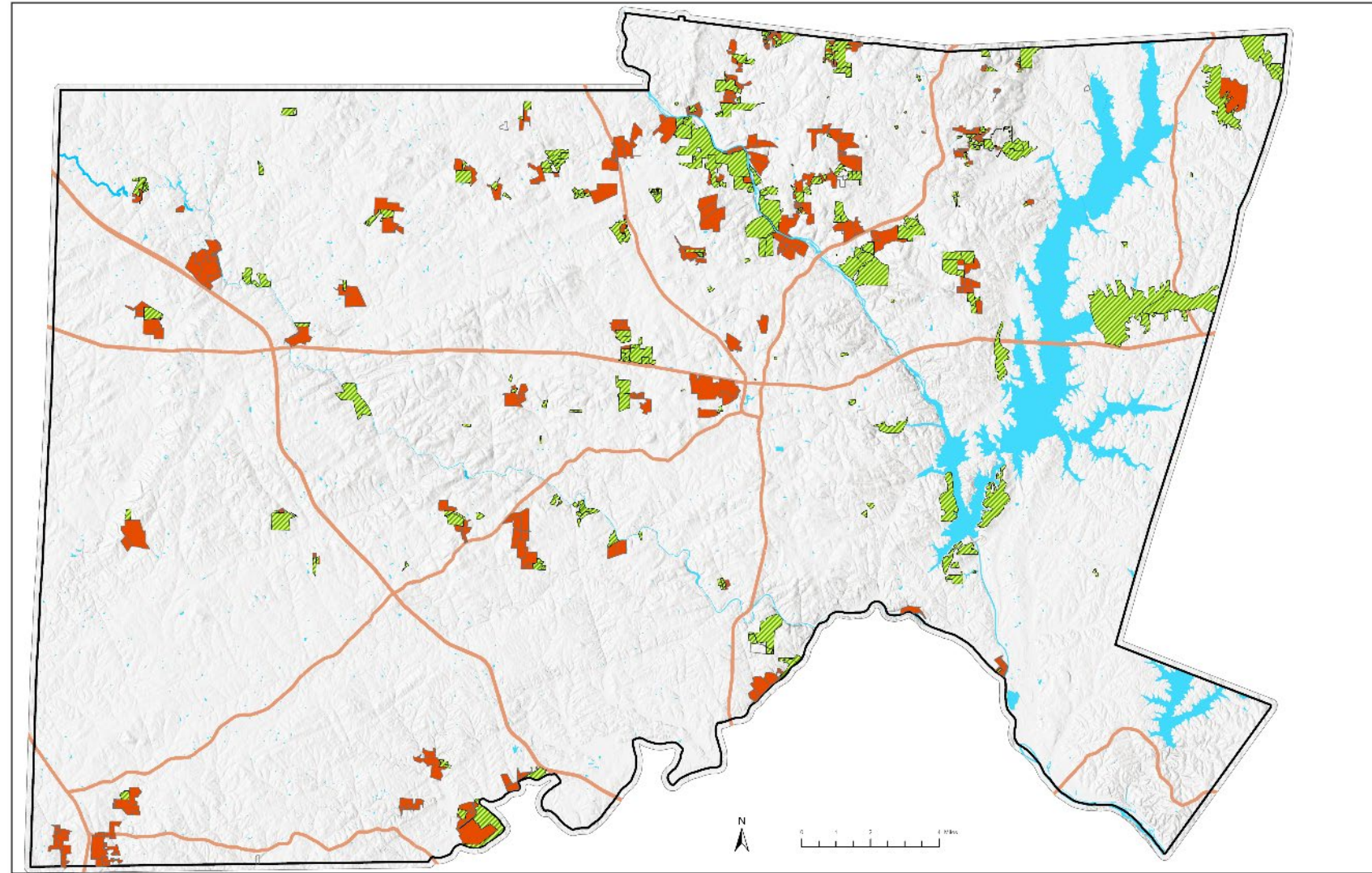
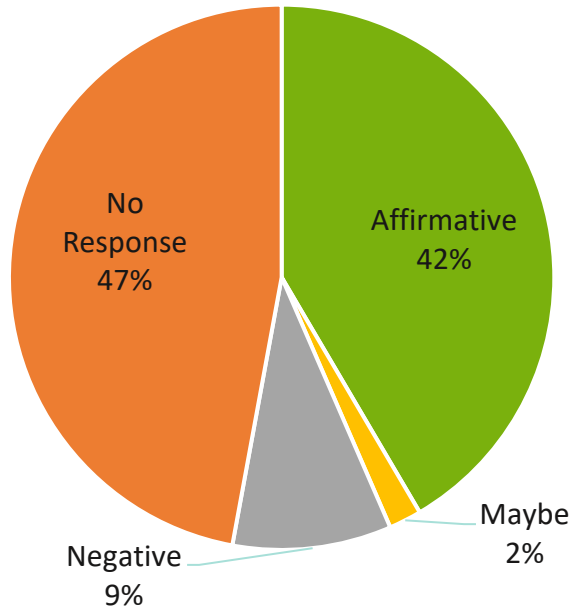
- 40 natural areas (Hall & Boyer 1992)
 - unusual topography
 - riparian & riverine corridors
 - unusual soil chemistry
 - major wildlife areas

Outreach Results

Chatham Tracts Contacted for 2025 Inventory

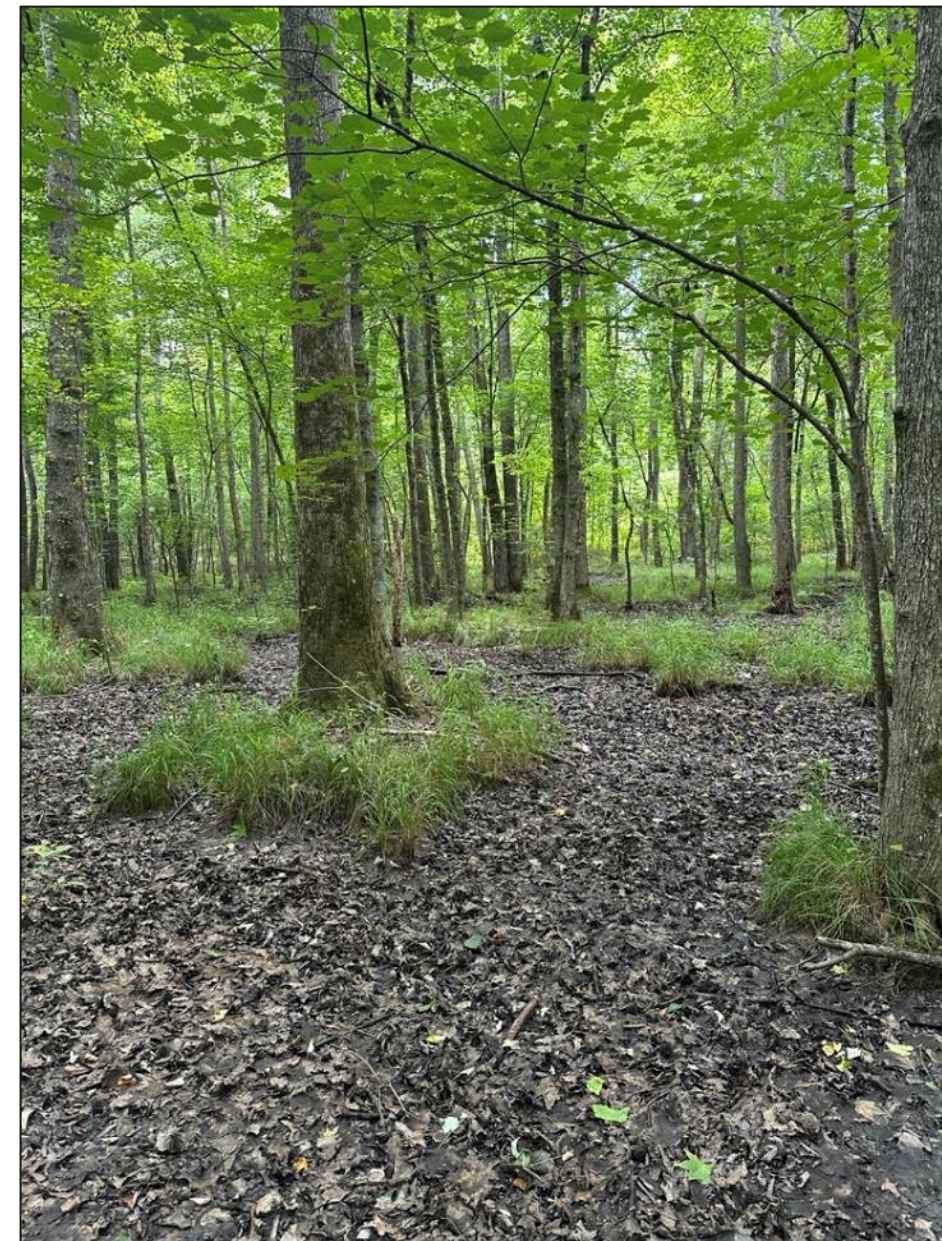
- 413 Total Landowners Contacted

Landowner Outreach



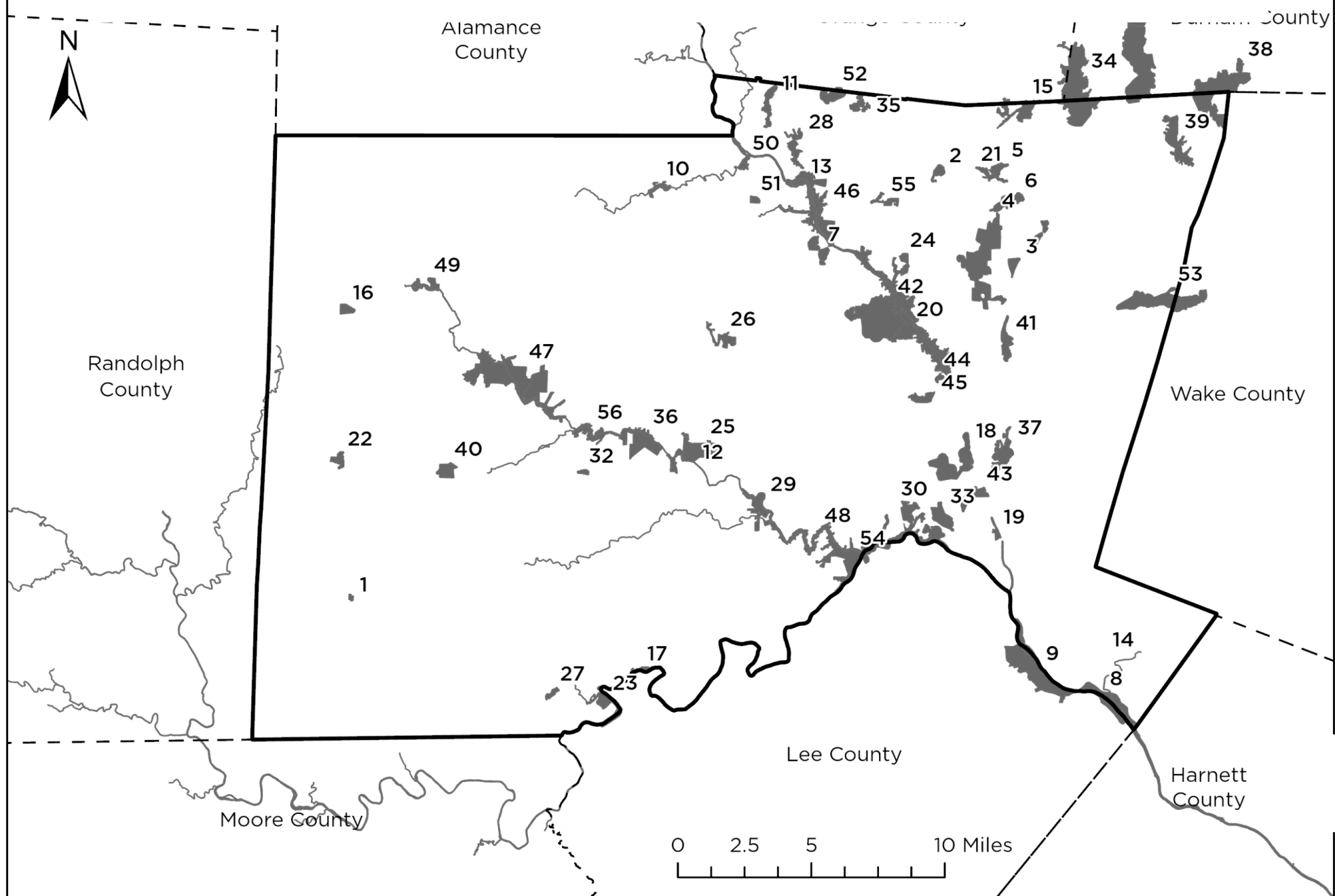
2025 Survey Results

- 112 Parcels Surveyed covering approx. 7,500 acres
- 6 new natural areas described
- 13 natural area expansions
 - totaling 675 added acres
 - Subtractions of 332 acres
- 56 total natural areas
- 30+ newly mapped natural communities
- 9 rare species EOs updated or created



Piedmont Swamp Forest in Little Terrells Creek Bottomland Forest natural area.

2025 Chatham County Natural Areas



Chatham County Natural Area Site Significance



Each Natural Area
Receives Two Ratings:

- **Collective Value** rates the number and imperilment of all the Elements present.
- **Representational Value** measures how well it protects the best occurrences in NC of individual Elements.
- Highest values determines overall significance.

✓ Natural Areas

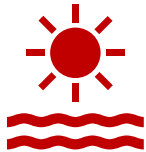
- Exceptional
- Very High
- High
- Moderate
- General
- Unranked

Survey Results: Natural Areas



Exceptional (4)

Donnelly Hardpan
Lower Deep River
Slopes
Moncure Boggy
Streamheads
Ore Hill



**All 3 Aquatic Habits
are rated
Exceptional.**



Very High (11)

Boothe Hill
Cape Fear/ Buckhorn Levees
Haw River Levees and Bluffs
Landrum Creek Forests
Morgan Creek Floodplain
Forest
Morgan Ridge
Rock Rest Mafic Islands and
Shore
Rocky River Basalt Bluffs and
Levees
Rocky River Dragonfly Riffles
White Oak Creek Floodplain
White Pines Natural Area



High (9)



Moderate (9)



General (20)



Rocky River, White Pines natural area.

Survey Results: Natural Area Visits

Natural Areas (*last observation dates)

- Donnelley Hardpan Bog *1989
- Gulf Diabase Forest *1993
- Gum Springs Church Road Slopes*1999
- Herndon Creek Ravine *1988
- LaGrange Diabase Slopes & Bottomlands *1989
- New Hope Overlook Bluff & Slopes *1999
- Northeast Creek Floodplain Forest*1995
- Parkers Creek Ridges *2010
- Rock Rest Mafic Islands & Shore *2006



Seepage in Rocky River Dragonfly Riffles natural area.

Rock Rest Mafic Islands & Shore natural area.

Natural Community Results

- 32 natural communities mapped
- Most commonly Oak—Hickory forests
- More Basic forests around Bynum
- Several newly mapped G2-G3 communities
 - Dry Basic Oak—Hickory Forest
 - Floodplain Pool
 - Piedmont Boggy Streamhead
 - Piedmont Bottomland Forest (Typic Low Subtype)



Dry-Mesic Basic Oak—Hickory Forest (Piedmont Subtype)



Piedmont/Mountain Semipermanent Impoundment

Rare Plant Species



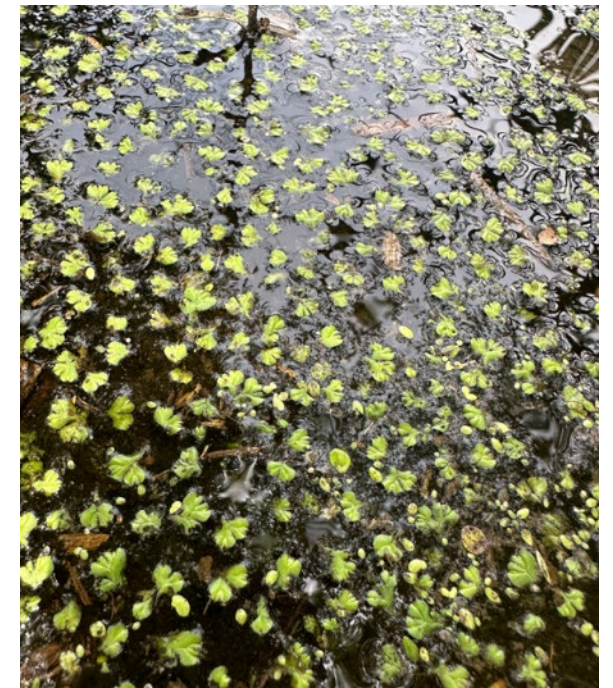
Buttercup phacelia
(*Phacelia covillei*)
NC SR-T, S3, US G3



Ozark Tassel Rue (*Trautvetteria
applanata*)
NC W-PK, S1?, US NR



James's sedge (*Carex
jamesii*)
NC SC-V, S2, US G5



Fringed heartwort (*Ricciocarpus
natans*)
NC W-RS (Rare but Relatively
Secure), S1, US G5



Heartleaf skullcap
(*Scutellaria ovata*)
NC W-PK (Poorly Known
in NC)



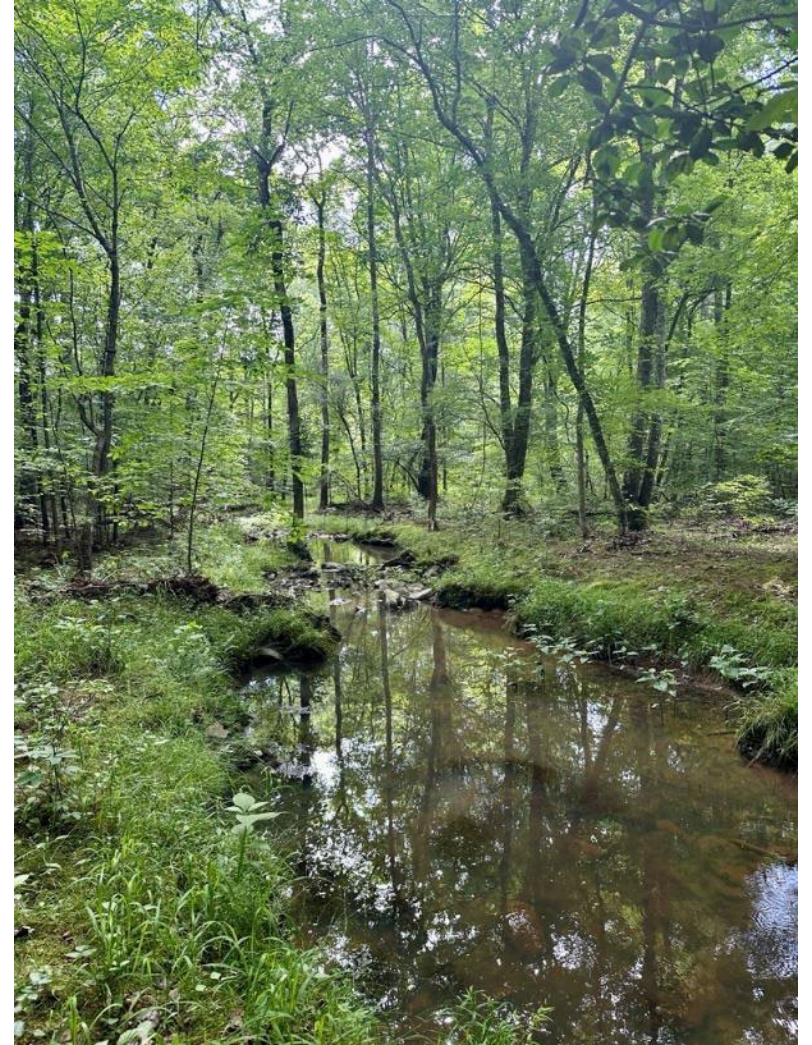
Leatherwood (*Dirca palustris*)
NC W-RS (Rare but Relatively Secure), S3,
US G5

Most photographed creature?



Chatham County Context

- Fast growing & developing county
 - Since 1992 inventory Chatham population grew 49%¹
- 82% classified as prime farmland²
 - Cotton, tobacco, wheat
 - Livestock: cattle & poultry
- Largely cut-over by 1914²
 - Satellite imagery suggests expansive timber harvest in mid 1950s



Haw River tributary, Chicken Bridge TLC property

¹U.S. Census Bureau 2023

²Chatham County Government Report 1970

Summary: 56 Natural Areas in Chatham County

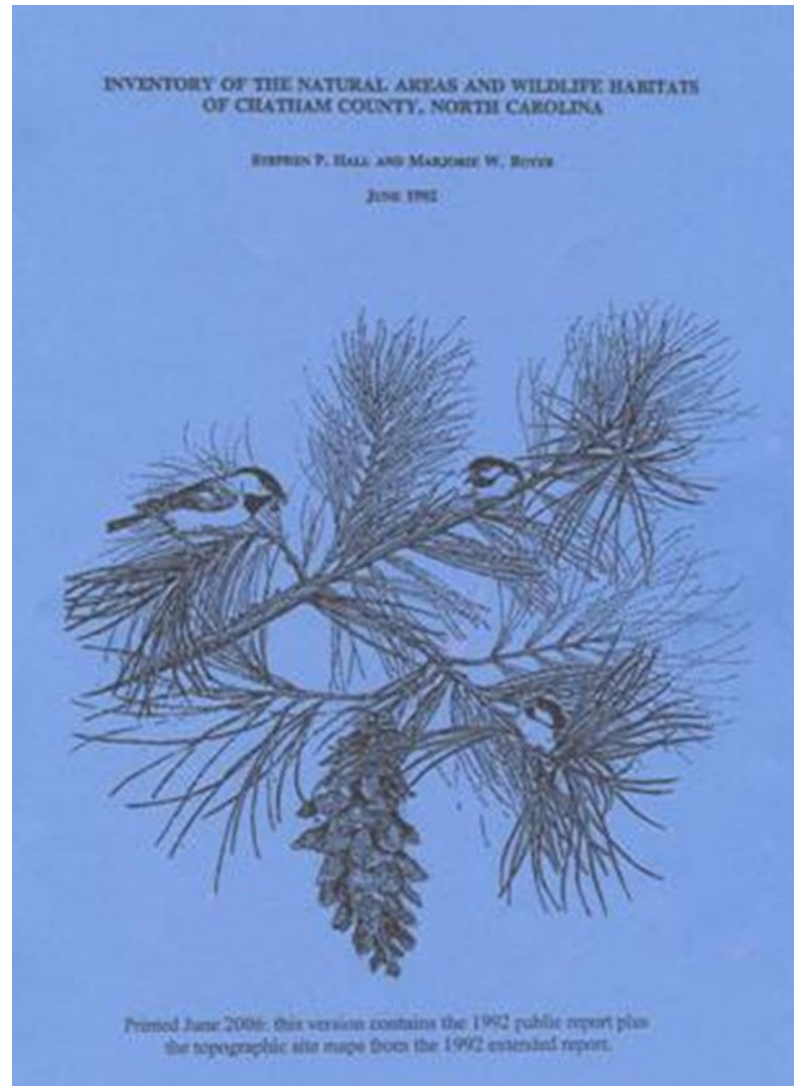


Spring ephemerals at Poes Ridge/ Dam Road Upland Forests natural area.

- This total is likely to change over time.
- Natural Areas with Public Access:
 - Cape Fear River/Buckhorn Levees
 - Gum Springs Church Road Slopes
 - Haw River Levees and Bluffs
 - New Hope Overlook Bluff and Slopes
 - Parkers Creek Ridges
 - Poes Ridge/Dam Road Upland Forests
 - Robeson Creek Depression and Hardpan
 - White Pines Preserve

Resources available from NC NHP

- Inventory reports



AN INVENTORY OF THE SIGNIFICANT NATURAL AREAS OF CHATHAM COUNTY, NORTH CAROLINA

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North Carolina Natural Heritage Program
N. C. Department of Natural and Cultural Resources
Raleigh, NC

Funding provided by Chatham County

June 2025

Resources available from NC NHP

- GIS data layer (Incorporated within Chatham Conservation Viewer)

https://ncnhde.natureserve.org

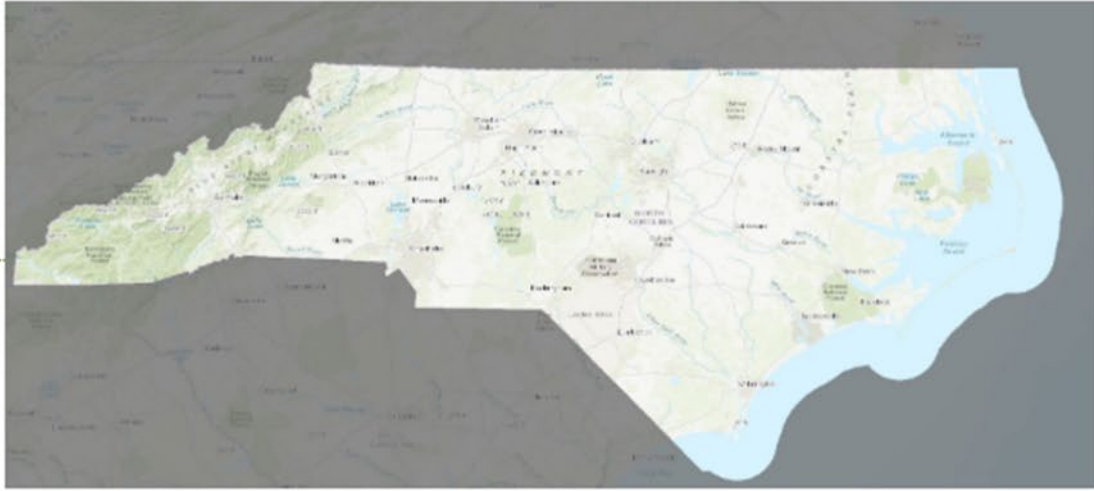
Natural Heritage Program
SCIENCE • LEARNING • CONSERVATION

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View Edit

Welcome to the
North Carolina Natural Heritage Data Explorer
Interactive access to maps of Natural Heritage resources for North Carolina.



Natural Heritage Data Explorer (NHDE) is a mapping web application that provides interactive access to maps and data representing Natural Heritage resources and other conservation values in North Carolina. Account holders can generate site-specific project review reports. Subscription accounts allow users to view element occurrences and generate unlimited project review reports. The project review output is a report of the rare species, natural areas, and managed areas found in the specified project footprint and within a one-mile buffer.

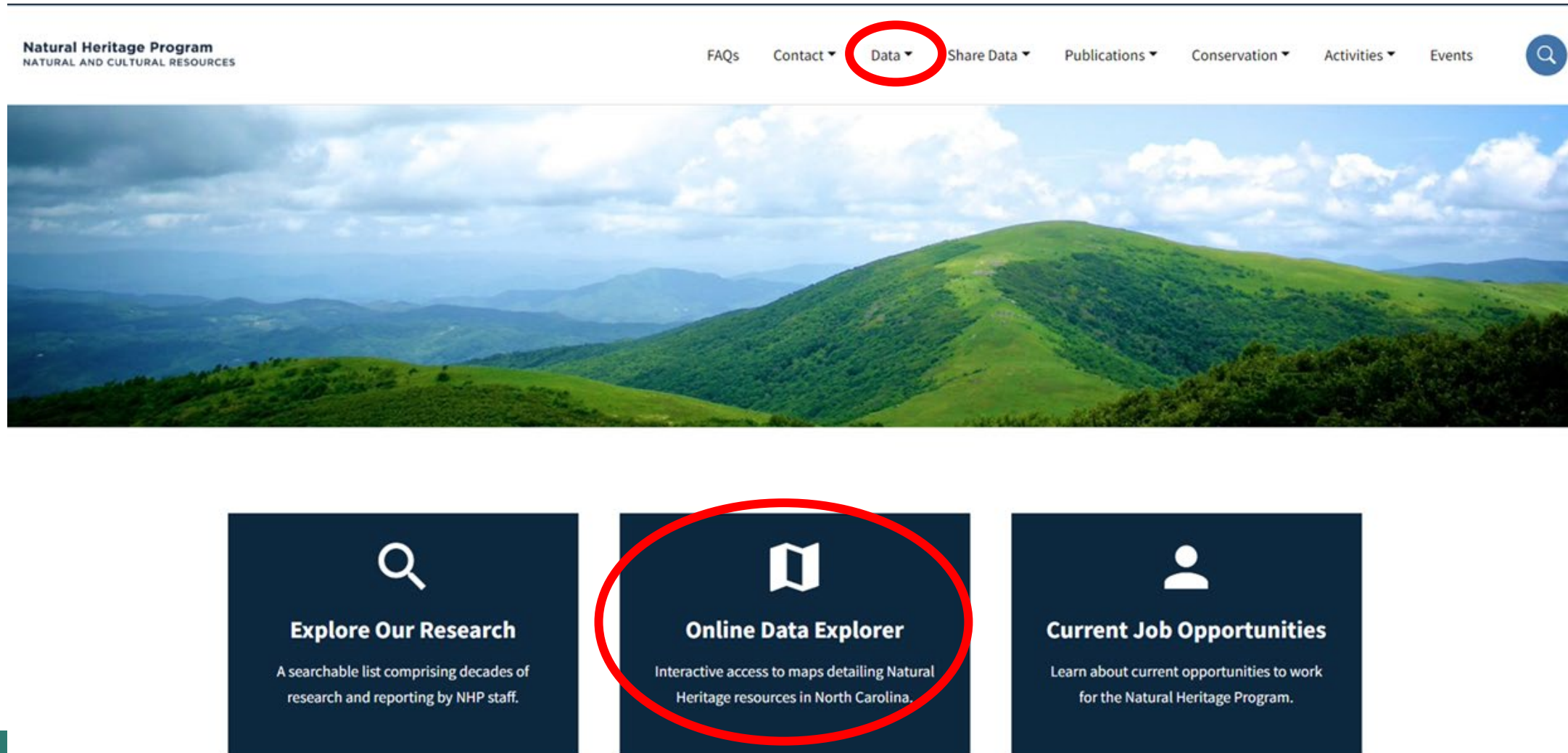
NC DEPARTMENT OF
NATURAL AND CULTURAL RESOURCES

See also:
www.ncnhp.org

Click the Online Data
Explorer link

Resources available from NC NHP

- Species/Community Search, Information Request
 - Website: ncnhp.org



Chatham County Utilization

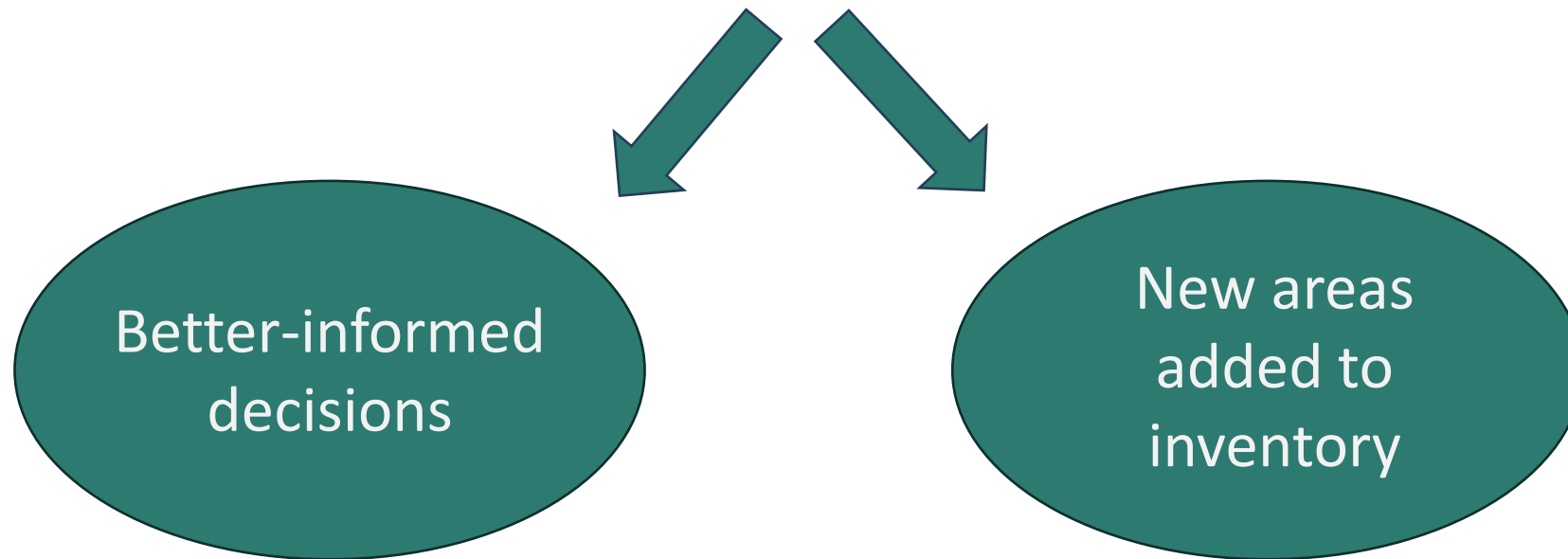
- Planning Department - Development Review Process



- Conservation Subdivision Guidelines
 - Incentivize developments with large, continuous conservation areas
 - 40% of the site conserved and in return landowners can develop an additional 10% more of the property
 - 80% is natural space and 20% is open space

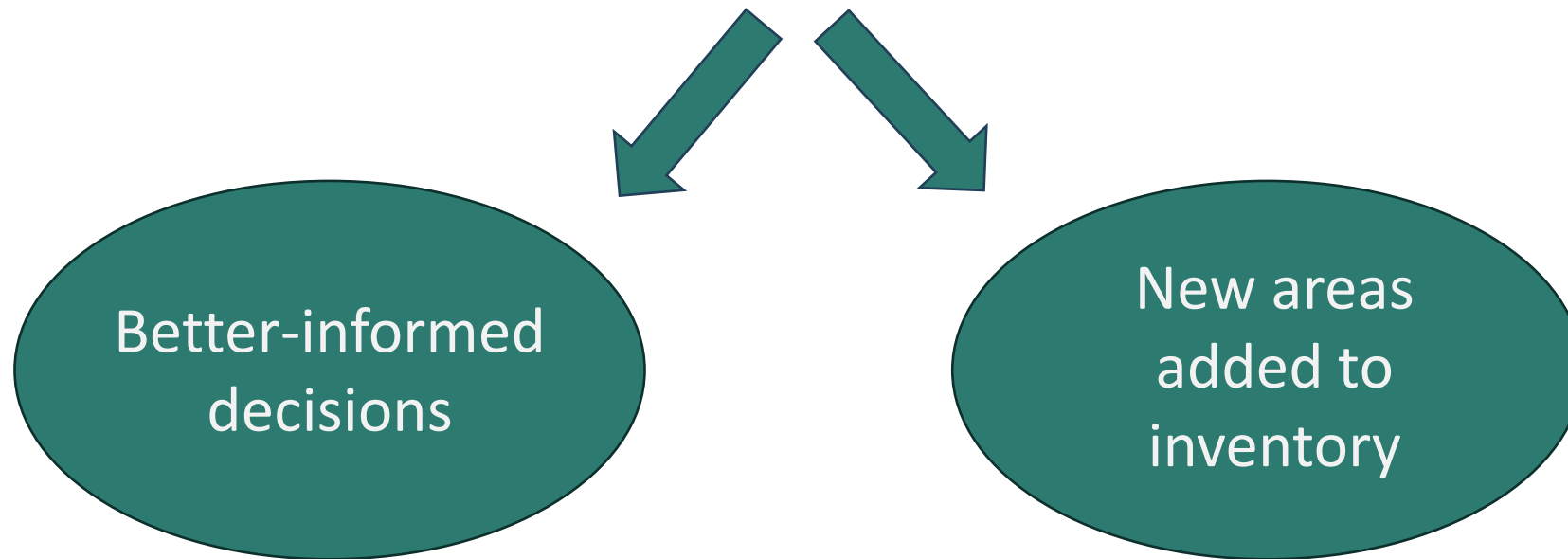
Chatham County Utilization

- If developers choose this option, they hire NCNHP staff to survey subdivision area
 - Choices of natural area locations are determined by
 - Newly updated NHP Inventory
 - NCNHP survey report

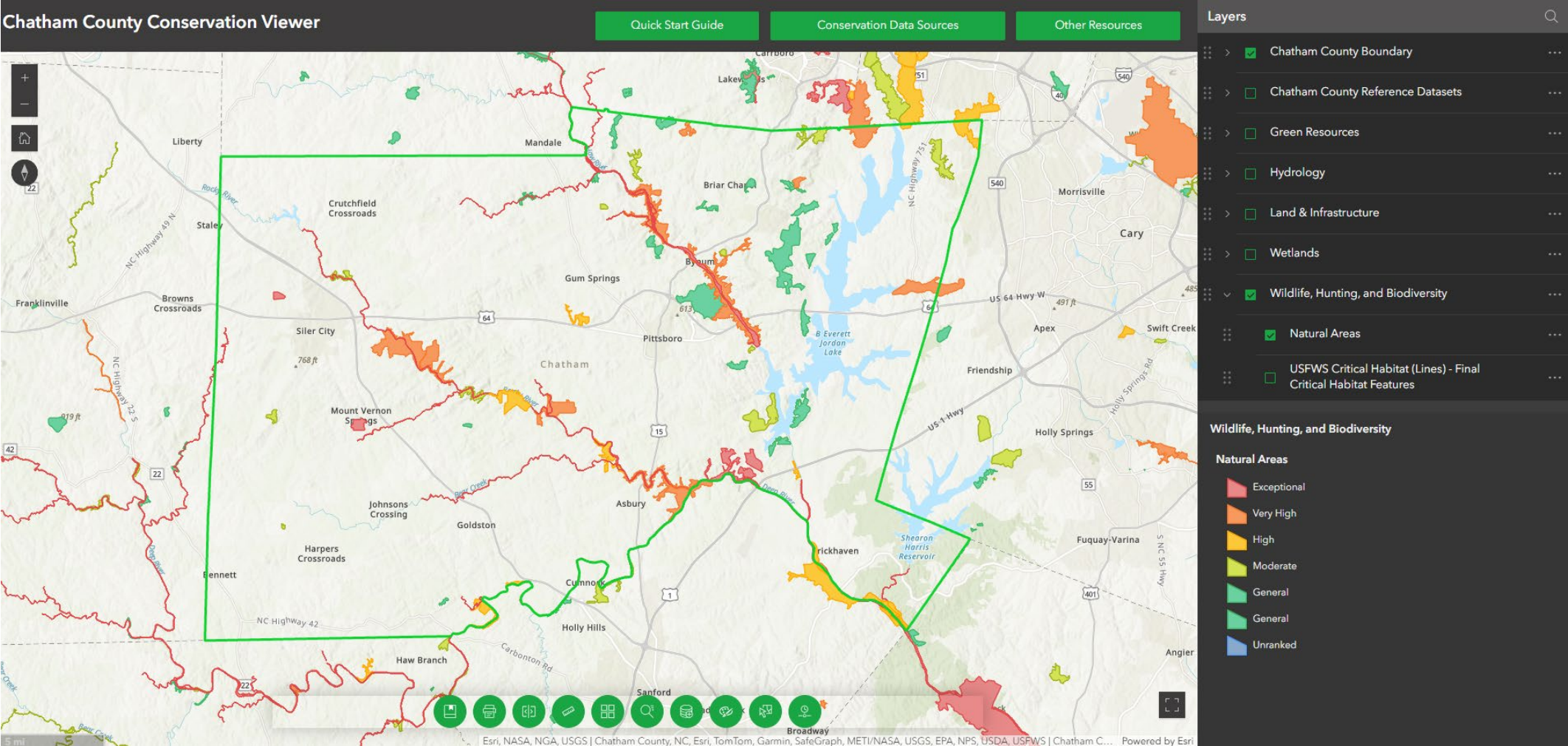


Chatham County Utilization

- Pilot program to offer NCNHP survey to interested landowners not included in the 2025 inventory
- 413 landowners contacted for the 2025 inventory
 - 172 granted permission
 - 112 of those surveyed



Chatham County Conservation Viewer



Chatham County Conservation Webpage



[Our Community](#)[Government](#)[Organizations](#)

LAND+HABITAT

HAW RIVER TRAIL CORRIDOR STUDY

+

AGRICULTURAL CONSERVATION EASEMENT PROGRAM

+

AG PRESERVATION TRUST FUND

+

ENO-NEW HOPE STRATEGIC ACTION PLAN

+

NATIVE SPECIES IN COUNTY PARKS

+

NATURAL AREAS INVENTORY

-

The North Carolina Natural Heritage Program (NCNHP) collects and publishes data on rare and important species and habitats. This data is utilized in land conservation, development review, and land-use planning.

The Chatham County Planning Department, in partnership with Triangle Land Conservancy (TLC), has completed a comprehensive, two-year ecological inventory in collaboration with the North Carolina Natural Heritage Program (NCNHP). This project, finalized in June 2025, marks the first county-wide update of significant habitats and rare species in Chatham County in more than 30 years.

The updated inventory is a vital tool for guiding land use planning, conservation priorities, and responsible development throughout the county. It documents the current status of rare species, natural communities, and ecologically significant areas, providing essential data to balance environmental protection with Chatham County's economic and community needs.

Access to the latest report: [2025 NHP Inventory](#).



Questions?

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