

Recommendations for Implementing a Natural Resource Conservation Ordinance

The Conservation Ordinance Review Committee ([CORC](#)), a community group composed of Pittsboro stakeholders were tasked with developing recommendations to implement the *Model Natural Resource Conservation Ordinance (NRCO)* that was developed by the Nicholas Institute for Environmental Policy Solutions and the NC Wildlife Resource Commission. See the *Summary of the Natural Resource Conservation Ordinance for Pittsboro* for documentation how the Recommended Natural Conservation Overlay District was determined and on what is required for development proposals within the district. Summary is available for download from the Chatham Conservation Partnership wikisite: <http://chathamconservation.wikispaces.com>.

Town of Pittsboro staff had the following three specific recommendations for implementation of the NRCO.

1. Establish a Natural Resource Board to support governance of the NRCO and the Tree Protection Ordinance. A representative from the Natural Resource Board should attend all the technical review committee meetings for new development proposals.
2. Develop a protection area table of uses modeled after the stream buffer table of uses developed for the Jordan Lake rules.
3. Make Natural Resource Conservation District voluntary with density bonuses used as incentives.

Below are specific recommendations from the CORC on optional language for implementing the NRCO. Recommendations received majority support from the committee with one dissenting vote from Philip Culpepper. Recommendations are given by section headings matching the section headings in the *Model NRCO*.

Section I: General Provisions

D. Finding of Facts

1. Natural resources such as Jordan Lake and Haw River water supply systems, forests, and plant and wildlife habitat provide valuable cultural, educational, and recreational opportunities and support local industries and public health and welfare.
2. Areas that contain a diversity of plant and animal species, or provide habitat for protected species such as the Cape Fear Shiner, can be a natural resource of local, state, national, and global significance.
3. Plants and animals play an important role in maintaining healthy ecosystems through ecological interactions such as predation, pollination, and seed dispersal. Maintaining healthy natural resources mitigates air pollution, improves water quality, moderates temperature, reduces drought and flooding, and sustains local timber, recreation and associated jobs and local revenue.

4. The quantity and quality of drinking water is enhanced by healthy ecosystems through mechanisms such as water absorption and filtration. These services can be degraded when impervious surfaces are placed in sensitive areas such as stream buffers, wetlands, and other significant natural resource areas.
5. Maintaining healthy and diverse natural resources is important for a robust farming, forestry, and horticulture economy. These industries rely on pollinators, predators of pests, healthy soil, and other natural resources. These industries can be compromised when incompatible land uses surround them.
6. Certain types of land development can negatively impact ecosystems, natural areas, and wildlife. Properly planned development can maintain these natural resource assets by avoiding the fragmentation of key natural areas and the associated reduction of ecosystem function and services

E. Purposes and Goals

1. The purpose of the Natural Resources Overlay District is to maintain the quality of life in the Town of Pittsboro and to protect the health, safety, welfare and general well-being of the citizens of Pittsboro by conserving and connecting the highest priority waterways, forests, and habitat for terrestrial and aquatic native plants and animals in Pittsboro's jurisdiction while accommodating development and other land uses.
2. The Natural Resources Overlay District is designed to preserve and protect ecosystems while balancing the need for planned growth. This shall be accomplished by minimizing fragmentation or separation of significant natural resource areas, protecting upland habitats in addition to adjacent waterways and water sources, maintaining plant and animal habitat diversity and specifically protecting unique environmental features identified as integral parts of the designated landscape.
3. This ordinance shall establish standards and procedures for the use and development of land. The standards and procedures are designed to protect, conserve, enhance, restore, and maintain significant natural resource areas and the ecological connections between them.
4. The Natural Resources Overlay District conserves significant natural resource areas identified by Town of Pittsboro.
5. It is intended that the implementation of this ordinance accomplish the following goals:
 - a. Create an aesthetically pleasing and functional living environment by conserving remaining healthy terrestrial and aquatic habitats within our jurisdiction.
 - b. Maximize the retention of existing ***significant natural resource areas***.
 - c. Establish and maintain connectivity between significant natural resource areas by retaining corridors of land in a natural state to provide for unimpeded movement of wildlife and plant species among habitat areas.
 - d. Maintain balanced outdoor recreation opportunities such as hunting, fishing, bird watching, and other outdoor pursuits.
 - e. Create opportunities for greenways throughout the community for trails, connecting habitat, buffering streams, sustaining wildlife, and providing recreation and educational activities for residents.

- f. Ensure that land uses and development are planned and designed to be harmonious with significant natural resources areas and to reduce conflicts with working lands, wildlife conservation, and habitat management activities.
- g. Protect remaining large contiguous significant natural resource areas from activities that would alter their ecological integrity, balance, or character.
- h. Maintain the diversity of plant and wildlife species and habitat found in the community, which will benefit rare species protected under Endangered Species Act such as the Cape Fear Shiner, possibly advancing that species toward delisting and help to keep other species from requiring Endangered Species Act protections in the future.
- i. Promote multiple community benefits e.g. nutrient pollution reduction, water supply protection, flood protection, steep slope protection, priority plant and animal habitat protection, air quality, soil conservation, minimizing noise and light pollution, greater awareness to development community and others.
- j. Provides ecosystem services that can reduce cost to developers by requiring less engineered structures and reduce town costs in plan reviews and inspections as a result of less stormwater management devices.
- k. Protect and enhance scenic resources including landscapes, ridgelines, meadows, and geologic features that have special scenic character or a historic or aesthetic interest or value.

Section II. Natural Resources Conservation Overlay District Established and Official Map

A. Natural Resources Conservation District

The map of the recommended NRCO District of the Conservation Ordinance Review Committee is based on the Biodiversity and Wildlife Habitat Assessment relative conservation values 5 and above, as well as, the following significant natural resource areas: isolated wetlands, rare species streams, and hunting buffers along game lands. In addition, the overlay includes a 2,000-foot Haw River Protection Area, as recommended in Pittsboro's Land Use Plan and 300 foot wildlife corridors along Robeson Creek and Camp Creek.

Seven conservation hubs were identified in the overlay district:

1) Water Supply Area that protects Brooks Creek watershed that drains to Pittsboro drinking supply above the Bynum Dam on the Haw River,

2) Haw River Wilderness the remnant of the Pittsboro Wilderness Natural Area that is not directly impacted by planned roads,

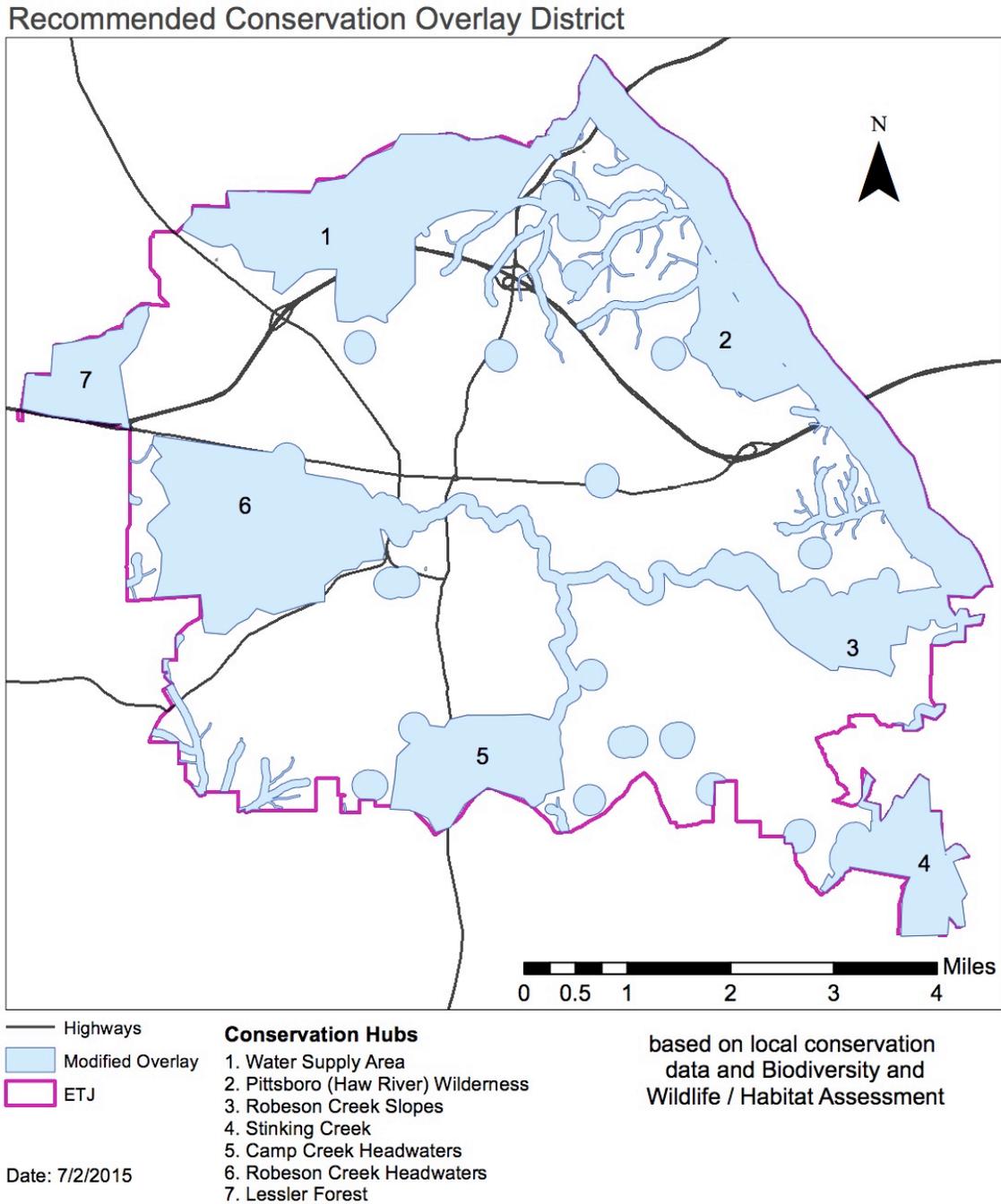
3) Robeson Creek Slopes that includes a Natural Area and highly erodible slopes,

4) Stinking Creek: includes high quality and rare Dry-Mesic Oak-Hickory Forest (Piedmont Subtype),

5) Camp Creek Headwaters that protects the headwaters of the only tributary of Robeson Creek watershed that has a 'good aquatic life' water quality rating,

6) Robeson Creek Headwaters that protects headwaters of the primary watershed in Pittsboro, which is an impaired creek, and

7) *Lessler Forest* protects a Natural Area of high rating with known occurrences for hardpan forest and the special concern species, four-toed salamander.



A map depicting all the conservation layers (conservation hubs, isolated wetlands, 2000 feet Haw River protection area, 300 feet Robeson Creek and Camp Creek wildlife corridors, rare species streams, and the hunting buffer as well as the Draft Conservation Overlay District is available on the Chatham Conservation Partnership wiki page for CORC under maps at chathamconservation.wikispaces.com/Conservation+Ordinance+Review+Committee.

Section III. Applicability: B. Exempt Activities

1. Match exemptions in existing town ordinance with the addition of commercial, industrial, institutional, multifamily residential, or government development less than .5 acres which would not be exempted in a other town ordinances.

Pittsboro Zoning Ordinance, Article V. Watershed Overlay District p. 82

5.5.8 Exceptions A pre-existing, deeded lot owned by an individual prior to the effective date of the provisions of this Section, regardless of whether or not a vested right has been established, may be developed for single-family residential purposes without being subject to the restrictions of this Section. However, this exemption is not applicable to multiple contiguous lots under single ownership. The recombination of existing nonconforming lots in single ownership shall be required pursuant to Article VIII, Section 2. (Nonconforming Lots)

2. Also minor subdivision as define in by the Town of Pittsboro in their Subdivision Ordinance should be exempted.

Town of Pittsboro Subdivision Regulations, Section 2. Definitions

Minor Subdivision Any subdivision containing not more than five (5) lots fronting on an existing public street, not involving any new street or road, or the extension or the creation of any public improvements, and not adversely affecting the remainder of the property or adjacent property.

Section IV Standards: A. General Standards

Conduct site survey to determine if there are *significant natural resource areas*.

1. CORC recommends that the following two options for the Town of Pittsboro to consider:
 - a. If survey determines that significant natural resources cover 50% or greater of the tract, then up to 50% of the parcel of the tract may be developed. Otherwise percentage is based on % tract that significant natural resources are found.
 - b. If survey determines significant natural resources cover 35% or greater of the tract, then 65% of the tract may be development with an additional density bonus for every additional 5% of the tract protected.
2. Add appeal to site survey go to the Board of Adjustment for questions on significant natural resources found and follow the normal appeal process for zoning. (See Pittsboro Zoning Ordinance, Section XI: Board of Adjustment)
3. Restrictions on development in area that is not being conserved
 - a. Limit to 15% to 25% impervious surface of the entire tract (percentage calculation based on total tract so includes the protected area).
 - b. Limit impervious surface to 10% in Federally listed species subwatersheds

4. Construction Performance Standards use soil erosion control program already in place through Chatham Co.

Section V: Definitions

*CORC Recommendations for how to define **protection area** and **significant natural resource areas** for use in field surveys when applying the Natural Resource Conservation Ordinance. Recommended definition for **significant natural resource areas** would replace the definition 25 in the Model NRCO.*

1. **Buffers** – protection area
2. **Protection Area** – A portion of the property designated to mitigate impacts from land uses, or transportation routes, or to protect natural areas from pollution. These areas should be maintained in existing natural vegetation and should not be cleared of natural vegetation. Protection areas can undergo prescribed burning for wildlife habitat management purposes and the understory vegetation below the tree canopy can be minimally thinned by no more than 30 percent of canopy or vegetation cover to maintain scenic views or remove invasive species.
3. **Significant natural resource areas** (*see attached maps and exhibits*): shall include those areas so designated by the Town of Pittsboro by virtue of containing rare or declining habitats or habitats that support rare species or a high diversity of species. These significant natural resource areas consist of the following natural resources and habitats and should be used in field surveys to verify the presence of natural resources:
 - a. Delineated waters falling under federal, state, Chatham County, or Town of Pittsboro jurisdiction.
 - b. Habitat of any federally endangered species.
 - c. The presence of a natural community or communities as defined by the NC Natural Heritage Program in the *Classification of the Natural Communities of North Carolina*¹ within *Natural Heritage Natural Areas* (NHNAs) identified and mapped by the NC Natural Heritage Program. *NHNAs* are not the same as significant natural resource areas and have their own definition. The NC Natural Heritage Program formerly called *NHNAs Significant Natural Heritage Areas* (SNHA) and the name is SNHA within the Natural Heritage Inventory. *NHNAs* within Pittsboro jurisdiction include most recent (2014) Pittsboro Wilderness, Haw River Levees and Bluffs, Robeson

¹ Shafale, M.P. 2012. *Classification of the Natural Communities of North Carolina, Fourth Approximation*. North Carolina Natural Heritage Program, Raleigh.

Creek Depression and Hardpan, Robeson Creek Slopes, and the Lessler Montmorillonite Forest.

- d. The presence of vegetation within NHNAs matching the description of vegetation for that same NHNA as documented in the county's Natural Heritage Inventory.
- e. An average seven hundred and fifty (750) foot radius upland protection area of any shape adjacent to isolated non-alluvial wetlands greater than hundred (100) square feet not connected to streams or not within conserved floodplains, starting from the edge of the water or watermark. This protection area includes a one hundred and fifty (150) foot radius protection area designated as Zone 1 and remaining six hundred and fifty (650) foot are designated as Zone 2 of symmetrical shape around the wetland water's edge. Zones are in accordance with Pittsboro's Riparian Buffer Ordinance.² Wetlands are jurisdictional and/or non-jurisdictional waters under the Clean Water Act wetlands and are of the following types defined by the NC Natural Heritage Program in the Classification of the Natural Communities of North Carolina: Floodplain Pool Upland Seepages, Piedmont Upland Pools and Depressions.³
- f. One hundred and fifty feet on either side of perennial ("blue line") streams or rivers within *subwatersheds* (14-digit Hydrologic Unit Code), which support federally endangered or threatened aquatic species. These rare species stream protection area may be reduced to accommodate other priority habitat conservation on site, but shall not be less than 100 feet.
- g. All stream channels and drainage features in the conservation overlay district, regardless of whether or not it appears on a USGS quadrangle or Soil Survey map, shall be evaluated by a certified professional with the DWQ Surface Water Method and approved by the Town. If it is found to be intermittent, it will have a fifty (50) foot buffer on either side, measured from the top of bank. If it is found to be perennial, it will have a minimum hundred (100) foot buffer on either side, measured from the top of bank. If the feature scores between 10-18 points, it will be considered as ephemeral

² Pittsboro's Riparian Buffer Protection Ordinance, page 6.

³ Shafale, M.P. 2012. *Classification of the Natural Communities of North Carolina, Fourth Approximation*. North Carolina Natural Heritage Program, Raleigh.

- h. Ephemeral channels will have a thirty (30) foot buffer if it is shown by the land owner or developer (and approved by the Town) that the overall development design or stormwater runoff existing at the development site will be of a higher quality or preserve higher value natural habitat by preserving the ephemeral buffer than by constructing a structural BMP or otherwise disturbing the ephemeral buffer.
- i. A three hundred (300) foot wide protection area on either side of the waterway adjacent to Aquatic Natural Heritage Areas (Haw River) identified by the NC Natural Heritage Program. These protection areas may be reduced to accommodate other priority habitat conservation on site, but shall not be less than hundred (100) foot.
- j. Habitat that is sufficient as field verified by a qualified biologist to conserve species current occurrences on tracts containing documented Natural Heritage Element Occurrences tracked by the NC Natural Heritage Program.
- k. Sufficient habitat, as determined by a qualified biologist, to support state or federally listed species observed opportunistically during site visits. The term “listed” includes designation as Endangered, Threatened, or Special Concern.
- l. A three hundred and thirty (330) foot wide protection area on all sides of a colonial waterbird-nesting colony encountered or as mapped by the NC Wildlife Resources Commission. A waterbird-nesting colony is defined as an area where two or more colonial waterbirds are nesting or have nested within the past two years. Colonial waterbirds are any species of heron, egret, anhinga, ibis, and stork. The NC Wildlife Commission maps these data.⁴
- m. A two hundred (200) foot-wide protection area around rock outcrops, and mines. Rock outcrops, which are natural features, contribute to a natural community structure consistent with physical characteristics of the underlying geological unit. For the purposes of this ordinance, rock outcrops include any of the following natural communities described by the NC Natural Heritage Program in the Classification of the Natural Communities of North Carolina: High and low elevation rocky summit, High and low elevation granitic dome, Piedmont, acidic and mafic cliffs, Piedmont mafic and calcareous cliffs, Granitic flatrocks, High elevation mafic glade, Diabase glade, Ultramafic outcrop barren and Boulderfield forests.

⁴ See the NC Wildlife Commission’s Green Growth Toolbox (www.ncwildlife.org) for details on obtaining these maps.

- n. An undeveloped protection area at least three hundred (300) foot wide connecting isolated wetlands on the property.
- o. The 500-year floodplain as defined by the U.S. Federal Emergency Management Agency.
- p. Mature hardwood forest consisting of greater than 25% hardwood trees native to the region over 50-years old or greater than twenty (20) inch diameter to indicate “mature” trees (this will vary depending upon tree species and growing conditions).
- q. Unfragmented forest defined as forest blocks of any type and age with an area of forest of 75 or more acres of forest habitat. Any acreage of the unfragmented forest can occur and should be conserved on the parcel within the conservation district. The entire unfragmented forest area does not need to be contained within the parcel.
- r. Lands may be designated by Town of Pittsboro as important for hunting, wildlife viewing, and other traditional forms of wildlife-related recreation, including lands outside of NC Wildlife Resources Commission Game Lands, within 150 yards of Game Land boundaries, especially adjacent to narrow areas of the NCWRC Game Lands of where NCWRC Game Lands are less than 300 yards in width. Designated areas should be mapped.
- s. Wildlife corridor protection areas at least one hundred and fifty (150) foot ⁵ width and habitat connector protection areas between significant natural resource areas where sufficient information exists to designate these areas or these areas are part of the Biodiversity and Wildlife Habitat Assessment of the NC Department of Environment and Natural Resources Conservation Planning Tool. (Robeson Creek, Camp Creek, and Haw River Wildlife Corridors).

⁵ Green Growth Toolbox

(www.ncwildlife.org/Portals/0/Conserving/documents/GGT/Manual/GGT_manual.pdf) page 43.