

# Summary of the Biodiversity and Wildlife Habitat Assessment for Pittsboro, NC

The Biodiversity and Wildlife Habitat Assessment (BWHA) is a method for compiling and prioritizing conservation data in order to identify essential high-quality natural resources required to maintain healthy ecosystems. The tool helps highlight areas of significant natural resources. The BWHA conducted for the Town of Pittsboro follows the methodology outlined in the *Comprehensive Conservation Plan for Chatham County, Appendix E-Methods: Conservation Ranking and Analyses* ([www.chathamconservation.wikispaces.com](http://www.chathamconservation.wikispaces.com)). The Chatham BWHA is modeled after the assessment used in the N.C. Conservation Planning Tool. The primary goals of this assessment are the preservation of aquatic and terrestrial habitats, landscape function, and connectivity. The result of the assessment is a map that represents the highest priority areas for conservation of wildlife habitat and biodiversity.

## Conservation Layers and Assessment Map

The BWHA is a geographic information systems (GIS) map layer that is a composite of 30 x 30 meter pixel grid comprised of 8 conservation layers categories and a impervious surface category. Each layer included has a

conservation value and has been ranked on an ordinal scale from 1 to 10 representing areas with a moderate to high

conservation value. A description of each layer and its relative

conservation value is provided in a table on the next page. The relative

conservation value is based on resource rarity and distinctiveness;

resource function; and data precision, accuracy, and completeness. In

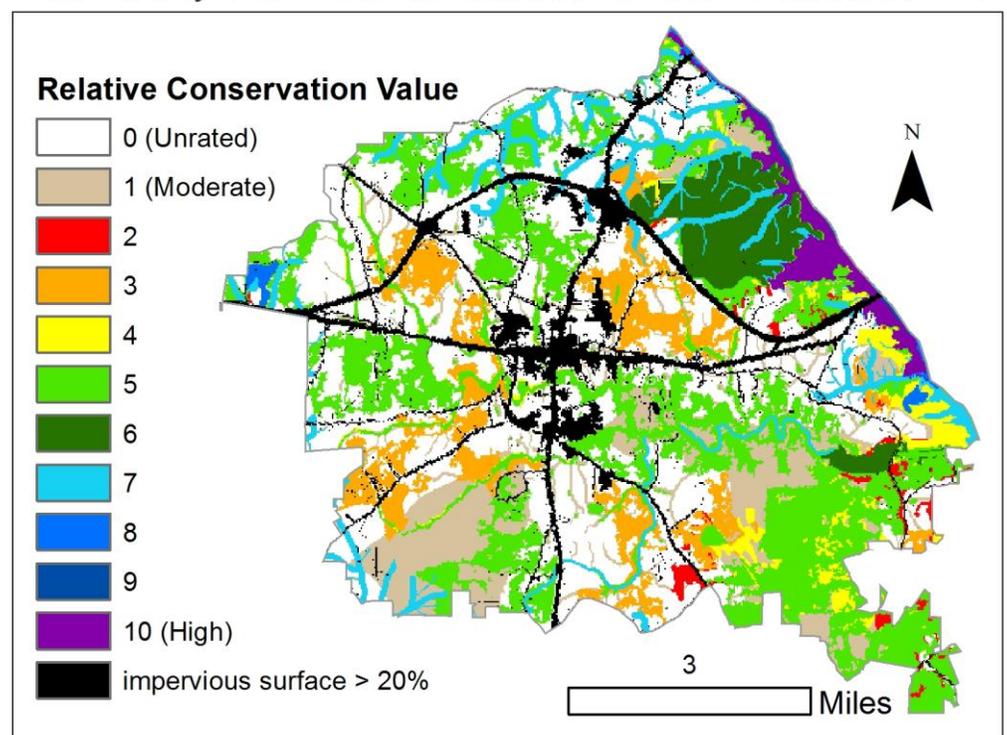
addition to conservation layers, impervious surface layers were included with a ranking of (-1) to reflect

negative impacts on biodiversity and wildlife habitat. Detailed

information about the data

used, the conservation value ranking, and methods used for the BWHA can be found in *N.C. Conservation Planning Tool, Chapter 4: Biodiversity/Wildlife Assessment* ([www.conservationtool.nc.gov](http://www.conservationtool.nc.gov)).

Biodiversity and Wildlife Assessment for Pittsboro, ETJ



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Mapped by Biocenosis LLC for the Planning Tools for Pittsboro Project

**Table 1 Ranking of Conservation Layers for BWA for Pittsboro**

Category	Value	Individual Input Layers	Date	Description
Rare species and high quality communities	10	NHPNA National or State Significance	10/2014	Based on NC Natural Heritage Program (NCHP) data on Natural Heritage Areas includes terrestrial and aquatic NHAs; based on NCHP data on the NC Conservation Planning Tool (NCCPT)
	8	NHPNA Regional Significance	10/2014	
	6	NHPNA Local Significance	10/2014	Based on NCHP data on the NCCPT - locations of element occurrences (EOs) of rare or protected species, high quality communities, and animal assemblages; high ranking includes overlapping EOs, those with Global (G1/G2) and state ranks (S1/S2), and those considered current (and last observation less than 30 years ago) and remaining EOs ranked as other.
	5	EOs High Ranking	10/2014	
	4	EOs Other	Oct-14	
Guilds	10-1	Landscape Habitat Indicator (LHI) Guilds	2013	Based on NCHP's most current analysis of conservation priorities for the NC Piedmont; Guilds represent groups of indicator wildlife species that rely on unfragmented habitat and are closely associated with particular habitats.
Watersheds	7	Streams Rare Species Priority Watersheds)	1/2014	Based on NCHP data on 2-digit HUCs in which federal and state-listed rare species are known to occur; USGS stream segments buffered by 200' and soil streams buffered by 50 ft. that intersect with HUCs
Streams	7/9	BioClass benthos: Excellent/Good	2012	Based on NC Department of Water Quality (DWQ) hydrography and bioclassification (benthic and fish) as of 2012; stream segments buffered by 100'
	7/9	BioClass fish: Excellent/Good	2012	
	1	Streams USGS	2007	Based on USGS blue-line streams; streams buffered by 100'
	1	Streams Soil Streams	2010	Based on digitized streams from Chatham Soil Survey maps (NRCS 2005); verified by soil scientist; streams buffered by 50'
Wetlands	5	Wetlands High Confidence	2010	Based on Union of NWI, Chatham Soils data (NRCS 2005) hydric soils and "wet spots", and flood hazard areas; depicts high likelihood for wetland habitat
	3	Wetlands Medium Confidence	2010	Based on Chatham Soils data (NRCS 2005) Riverview map unit (not included in High Confidence Wetlands); verified by soil scientist; depicts moderate likelihood for wetland habitat based on soils
Important bird areas	2	Important Bird Areas (IBAs)	2014	Based on Audubon Important Bird Areas (IBA) data to depict areas vital to birds and other biodiversity
Forest	3	Hardwood Forest Blocks 75 acres+	2011	Deciduous forests blocks defined by the National Land Cover Data (NLCD) that are 75+ acres.
	5	Hardwood Forest Blocks 500 acres+	2011	Deciduous forests blocks defined by the NLCD that are 500+ acres.
	4	Floodplain Forests	2011	Select all forest defined by the NLCD that are within the PBO_floodplain.shp
Managed Areas	4	Conservation Lands (No Buffer)	Oct-14	Based on NCHP data for Managed Areas (MAREAs) not buffered with 1/4 mile as in the CCP
Impervious surface	(-1)	Impervious surface above 20% land use/cover)	2011	Based on NLCD 2011 impervious surface data
	99(-1)	Roads	2014	Based on Chatham centerline data with addition of US15-501 expansion; roads buffered by 15 feet each side (30 feet total)
	99(-1)	Buildings	2011	Based on building footprints digitized from 2007 aerial photos for Risk Assessment by NC Dept. of Environmental Management (NCEM)



For further information on the BWA for Pittsboro or to download a map of the assessment visit the Chatham Conservation Partnerships wikispace: <http://www.chathamconservation.wikispaces.com>