

# Conservation of Critical Environmental Resources in Chatham Park

Elaine Chiosso,  
Haw Riverkeeper  
Haw River Assembly

*Haw River As Seen From Chatham Park*



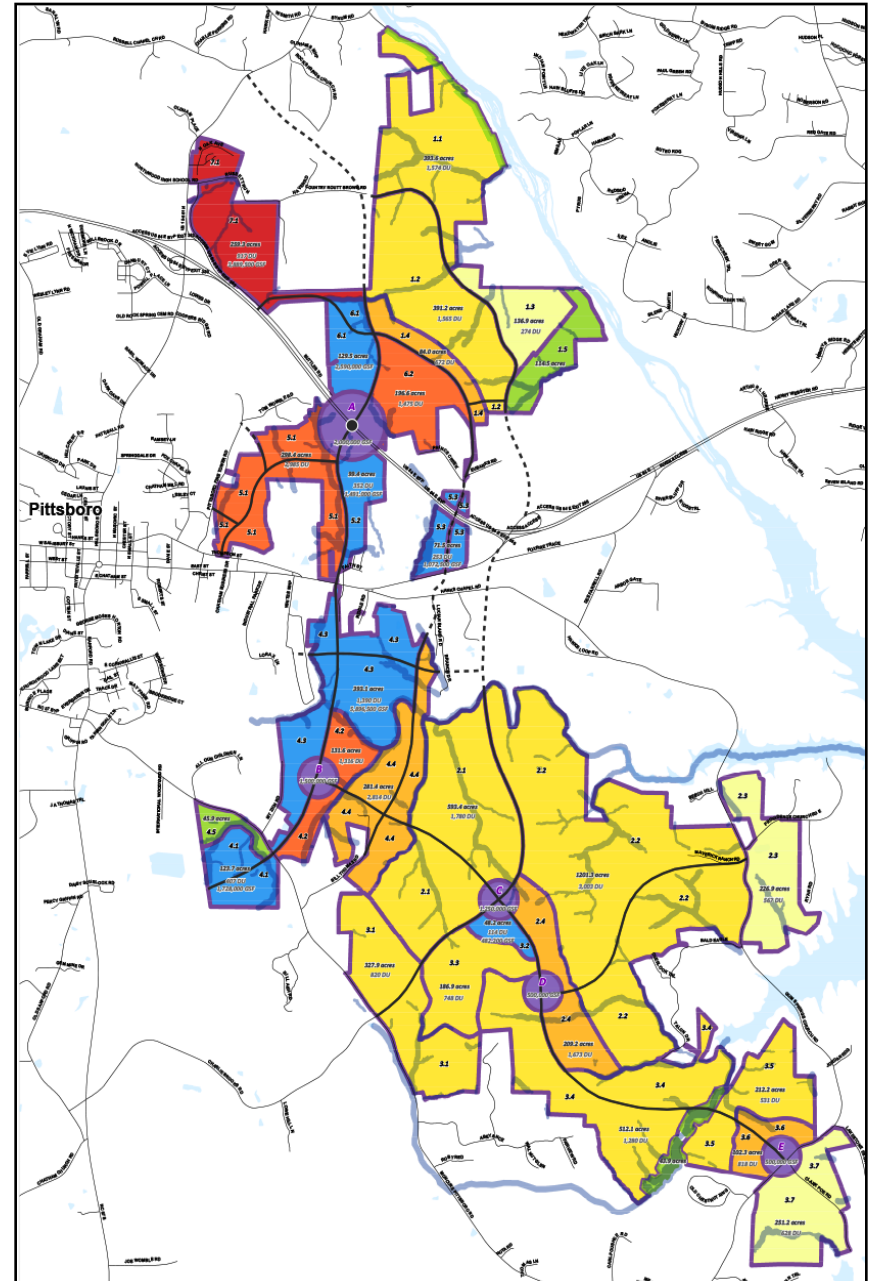


"Spreading southwestward from the banks of the Haw River and the shore of Jordan Lake lies an undeveloped wilderness of more than 10,000 acres... Laying within the Cape Fear River Basin and draining into Jordan Lake--the second largest drinking water supply for Triangle area communities--the Southwest Shore Wilderness is one of the largest remaining unfragmented areas in the six-county Triangle region . (Southwest Shore Conservation Assesment, 2008)



**The Town of Pittsboro has made it clear that conservation must be a key element of a Master Plan community under the Planned Development District ordinance in order to protect the *"public health, safety and well being"* of the town.**

**A Planned Development District is expected to "Preserve Critical Environmental Resources"**  
(Section 5.1(6) Town of Pittsboro PDD Ordinance)



***These **Critical Environmental Resources** must be identified and mapped as part of the Master Plan before rezoning of Chatham Park is approved***



# **What are the Critical Environmental Resources?**

- 1. Streams & buffers using Chatham County rules (GIS delineations)**
- 2. Wetlands & buffers (per Chatham Co rules)**
- 3. 100 year floodplains**
- 4. Steep Slopes of 20% or greater**
- 5. Cape Fear Shiner recovery habitat (per US Fish and Wildlife Service)**
- 6. Natural Heritage Areas (defined by NC Dept. of Environment and Natural Resources)**
- 7. Waters of the Haw River and Jordan Lake**



**We'd like to take you on a "Virtual Tour"  
of the  
Critical Environmental Resources  
in Chatham Park**





### Perennial streams



Perennial streams flow year-round and include Robeson and Stinking creeks on Chatham Park land. Chatham County requires 100' buffers on perennial streams.

# Intermittent Streams



Intermittent streams have sporadic flow, usually in response to seasonal rainfall patterns and the rise and fall of groundwater levels. Chatham County requires 50 foot buffers on each side of intermittent streams.



# Ephemeral Streams

Ephemerals are small headwater streams that run during rainfall.

Chatham County ephemerals, meeting minimum requirements, are protected by 30 foot buffers.





Chatham Park Investors do not plan to protect ephemerals, which means hillsides would be stripped and bulldozed, and the headwaters streams destroyed.





# Wetlands and their buffers



Wetlands are protected by state and federal law, but if the land surrounding them is not also protected, the wetlands are damaged by mud during construction.

**Chatham County requires that wetlands are protected by 50 foot buffers surrounding them**



## Conservation ... A Virtual Tour

### 100 Year Floodplains

**Critical for protecting downstream properties from flooding**





# Steep Slopes of 20% and Greater

Chatham Park Has a 350 Ft. Elevation Change over the highest and lowest parts of the land





# Haw River Cape Fear Shiner Recovery Habitat



The Cape Fear shiner is a Federally listed Endangered Species

Haw River lands along Chatham Park are part of its recovery habitat



# Conservation ... A Virtual Tour

## Significant Natural Heritage Areas



- The Haw River Aquatic Habitat

- The Pittsboro Wilderness Area

- The Haw River Levees and Bluffs

- The Robeson Creek Ravine

- The Robeson Creek Depression and hardpan



Photo by Fritz Flohr Reynolds

# Conservation ... A Virtual Tour

## Jordan Lake



- Drinking water for over 300,000 people
- 1 million visitors a year for recreation.
- It has been on the EPA Impaired Waters list since 2002 due to pollution.

***What will Chatham Park Investors do so that pollution from their development is not increased in Jordan Lake?***



# Options for Conservation Protection?

Conservation Scenario	Conservation Acres
Current Pittsboro Rules	849
Chatham Park Master Plan	?
<b>Pittsboro Matters Recommendation for Protecting Critical Environmental Resources</b>	<b>2895 acres</b>



# Protection of Critical Environmental Resources

Recommended Acres To Be Conserved by CPI in the Master Plan :	Total Acres per category	Net Acres (not included elsewhere)	Cumulative Acres	Total Percent
A. Streams + Buffers (per Chatham Co.)	1452	1452	1452	20.7
B. Floodplains (100 yr.)	125	30	1482	21.1
C. Steep Slopes (20% slopes)	798	494	1976	28.2
D. Wetlands + Buffers (per Chatham Co.)	62	28	2004	28.6
E. Cape Fear Shiner Recovery Habitat (per USFWS)	217	135	2139	30.5
F. Significant Natural Heritage Areas (per NCDENR)	1270	756	2895	41.2
TOTAL:			2895 acres	41.2%



# Conservation Areas Mapped = 41.2%

## The Lawrence Group Also Recommended

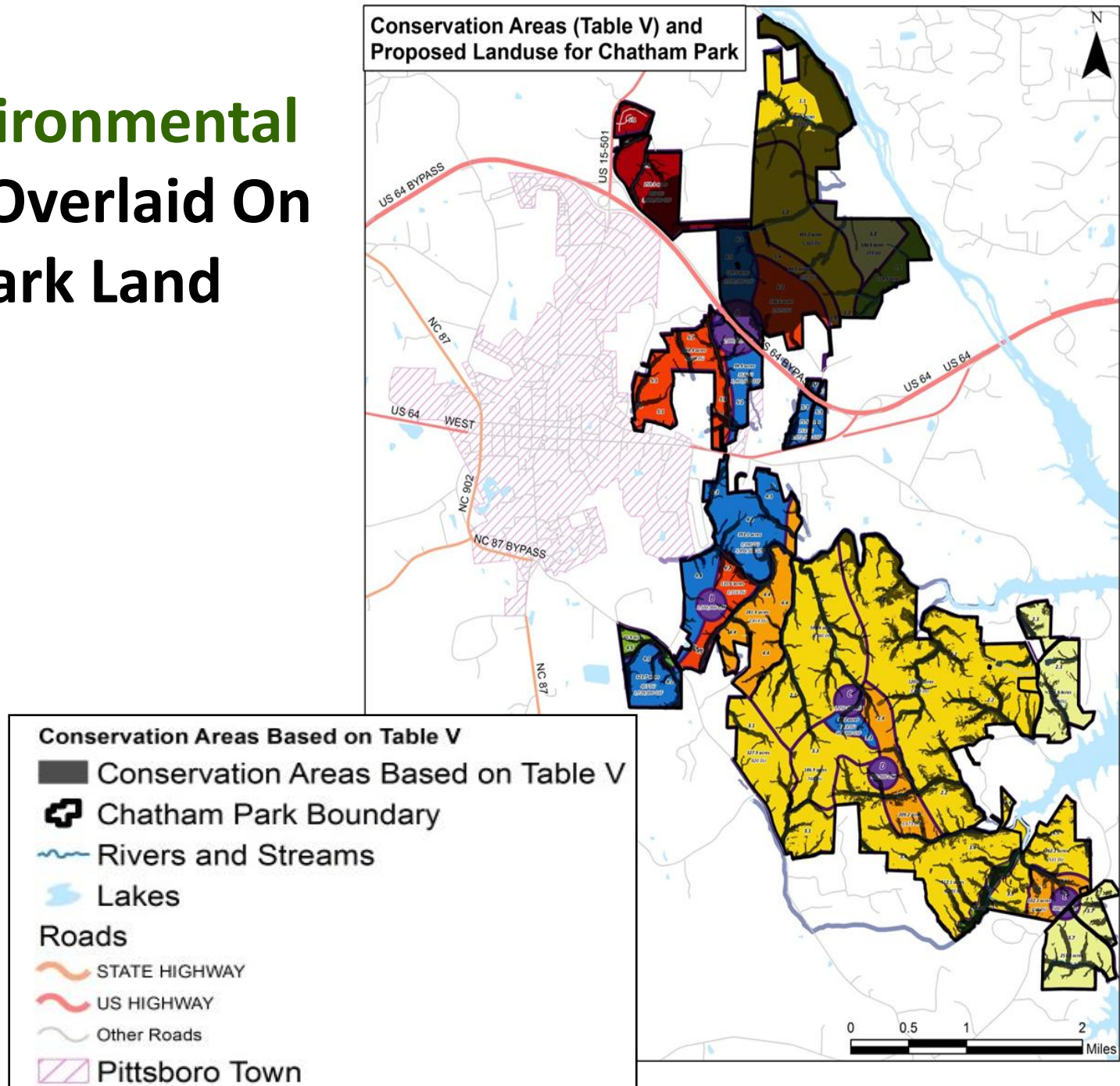
(1) 10% more for parks

(2) 5-10% more for  
conservation lands

These areas should be sited on  
poorly drained soils that cover  
nearly 10% of Chatham Park

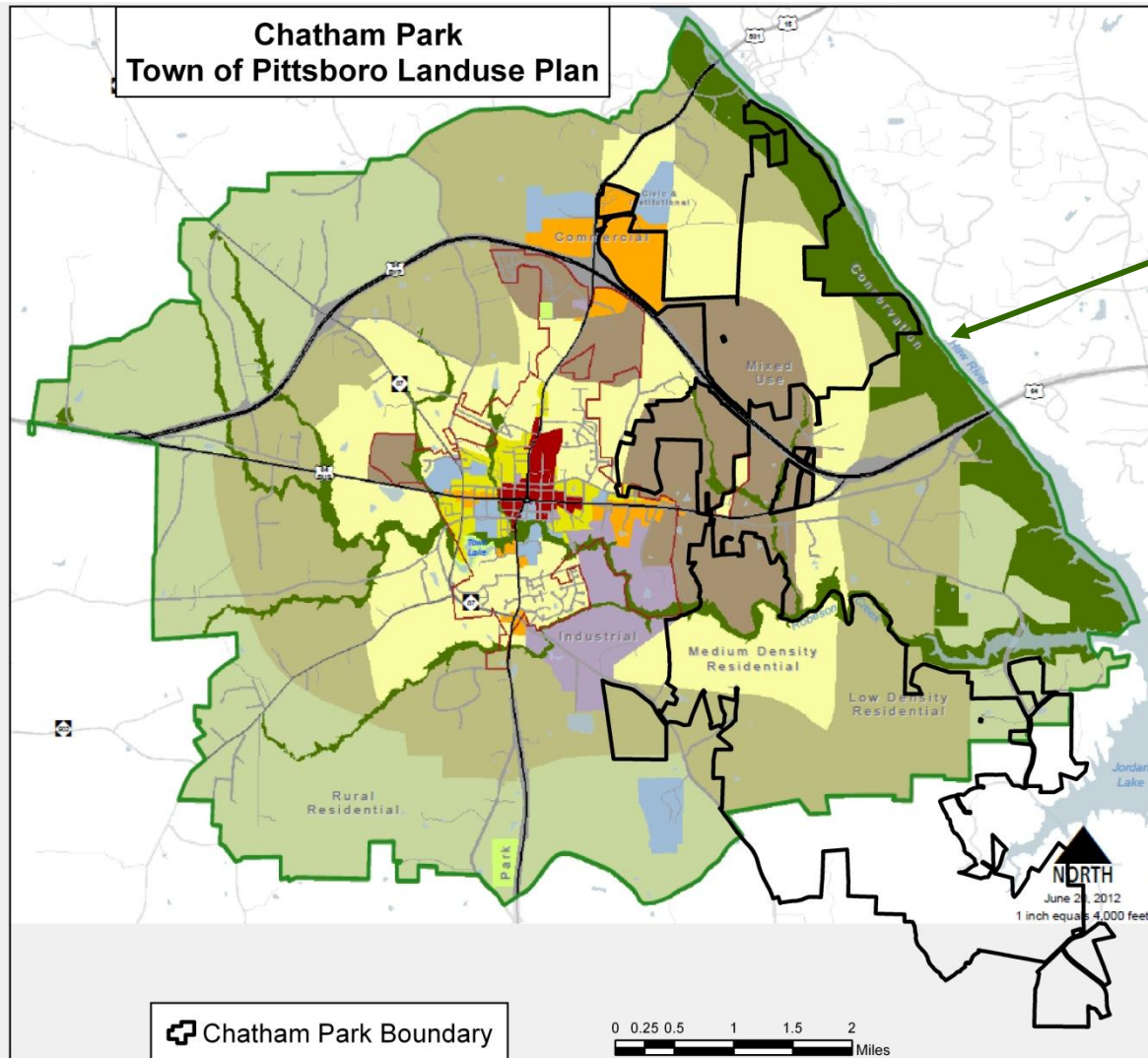


# Critical Environmental Resources Overlaid On Chatham Park Land Use Map





# Chatham Park should conform to the Pittsboro Land Use Plan



Pittsboro's Land Use Plan includes a 2000 foot –wide buffer (in dark green ) along the Haw River consistent with Chatham County's low density stream buffers.

"Development in these areas is generally discouraged."

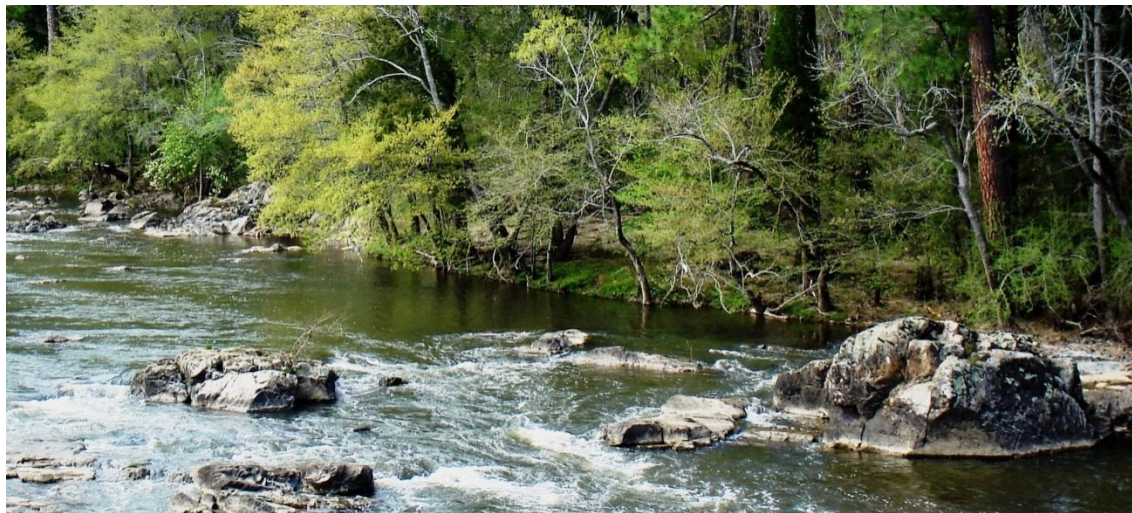
*(Pittsboro Land Use Plan, Section 5 page 99)*

# Chatham Park Does Not Have A Conservation Plan.

## *An Open Space Plan Is Not A Conservation Plan.*

The Master Plan states ... if full build-out occurs then 2,000+/- acres will be set aside as “open space” including undeveloped easements (utility, roads?), public and private lawns, mostly unidentified parks and trails, and some streams & buffers

**Critical Environmental Resources** are largely unprotected





## ***Without A True Conservation Master Plan--***

### ***What is the cost to our Environment, Clean Air and Water?***

- **Thousands of acres of forested steep slopes will be bulldozed** and miles of streams will be destroyed.
- **Damage during and after development** will include massive **sedimentation**, and **runoff of toxins and nutrient pollution** into Jordan Lake and the Haw River that will damage ecosystems, recreation and drinking water.
- **Climate Change in the 21st Century** will increase the damage done by Chatham Park to air and water quality due to loss of forest and healthy streams.

# Damage During Development...



Creeks damaged by sediment from erosion during construction in Chatham County. Engineered sedimentation control structures did not prevent this damage.





# Damage During Development...

The mud ended up as massive sedimentation of the Haw River and Jordan Lake from area developments



# Damage After Development...



**Excessive algal growth** due to nutrients in stormwater runoff have impaired the Haw River and Jordan Lake.

Stormwater runoff from paved surfaces also carry heavy metals and other toxins that further damage water quality and wildlife.





**A Conservation Master Plan and Map  
of these **Critical Environmental Resources**  
must be submitted  
*before* re-zoning is approved**



Protection for streams, steep slopes, wetlands, floodplains, critical habitat, and Natural Heritage Areas has to be planned for all of Chatham Park upfront - not piecemeal as development proceeds in Small Area Plans



# Haw River Assembly

Defending the river since 1982.



*For more information:*

Elaine Chiosso

Haw Riverkeeper

P.O. Box 187 Bynum NC

[www.hawriver.org](http://www.hawriver.org)

info@hawriver.org

919 542-5790

