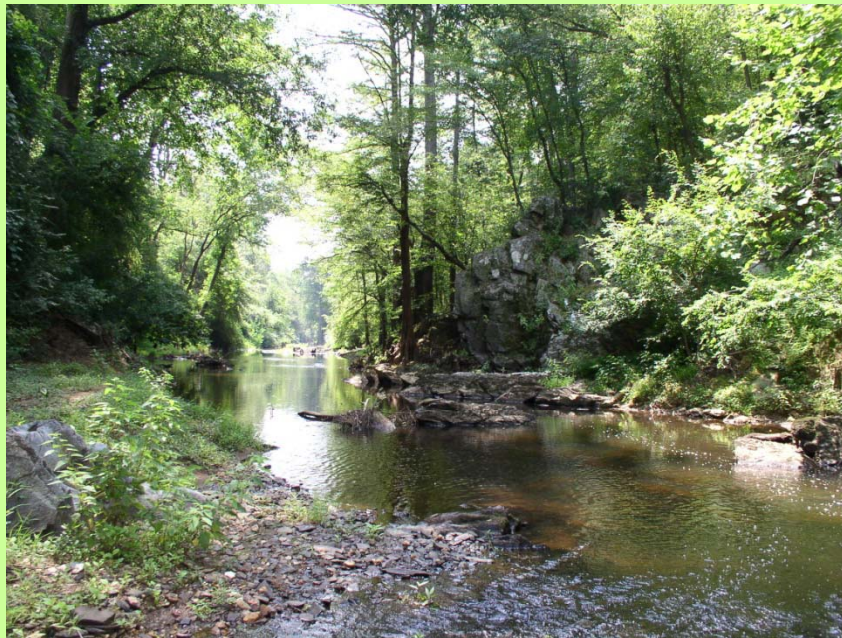


# Recommended Criteria for Determining Which Projects Require Environmental Assessments (EAs)



*Chatham County Environmental Review Board (ERB)  
20 August 2007*

# ERB Members

Allison Weakley (Chair) – Biologist

Elaine Chiosso (Vice-Chair) – Exec. Director, Haw River Assembly

Michael Dunn (Secretary) – Educator and Naturalist, NC Museum of Natural Sciences

John Alderman - Aquatic Biologist

Tara Allden - Soil Scientist / Attorney

Connie Allred – Biologist

Raj Butalia - GIS analyst / Environmental Scientist

Dr Hal House - Environmental Scientist

Dr Sonny Keisler – Political Scientist / Developer

Dr Steve Wing - Environmental Epidemiologist

# What is an Environmental Assessment (EA)?

- Document that analyzes a proposed action for **significant environmental impacts**
- Decision-making tool

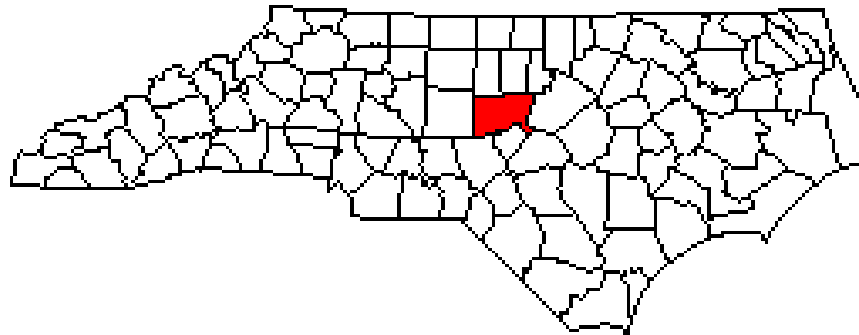
The EA process is used to help

- identify potential impacts from a proposed project
- design projects with less environmental impact
- avoid or mitigate impacts



# Role of ERB in the EA Process

- Identify projects which need an EA using threshold criteria
- Provide peer review of EAs for consideration of the BoC

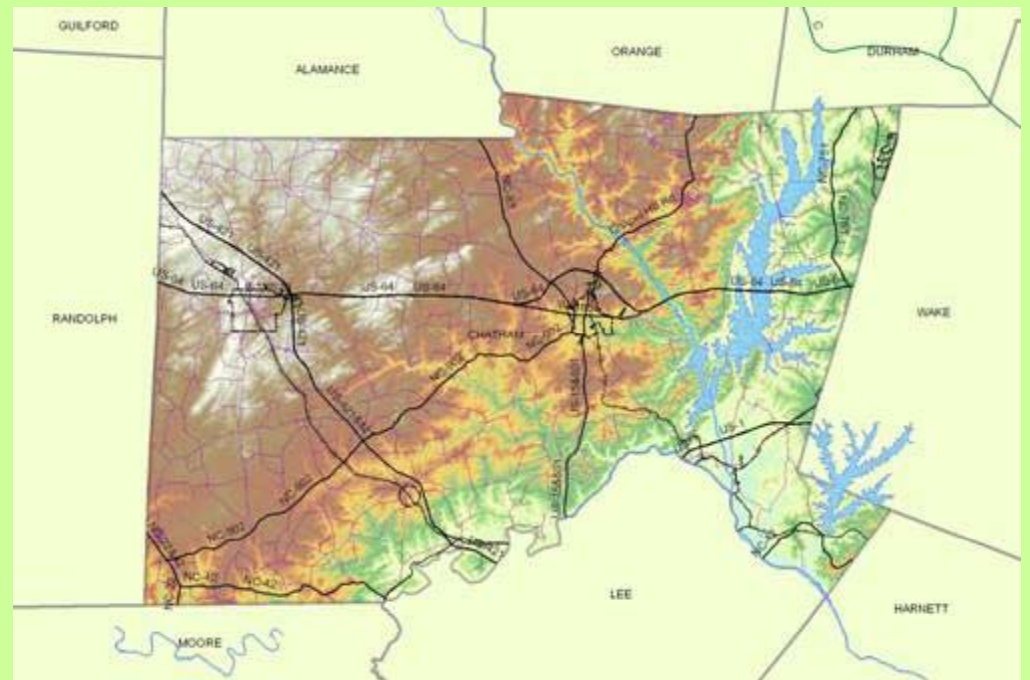


# Development activities covered by EA threshold criteria

- Commercial and industrial projects within zoned portions of the County (i.e., subject to Zoning Ordinance)
- Subdivision projects anywhere in the County (subject to Subdivision Ordinance)

# Why use Threshold Criteria?

- *To provide* a clear understanding of when an EA is required
- *To provide* a uniform 'screening' tool



# Threshold Criteria as a 'Screening Tool'

- Many of the criteria can be displayed on a map using electronic data
- Much of this **electronic information is readily accessible** to county staff, developers, and citizens

# Our recommendations are based on...

- Current Chatham County Subdivision and Zoning regulations
- Collective knowledge of and research by ERB members
- Public input (citizens, development community)
- County staff input (Erosion Control and Planning)
- State agency staff input
  - Soil and Water Conservation District
  - NC Natural Heritage Program
  - NC Wildlife Resources Commission
- State Environmental Policy Act (SEPA) guidelines
- Orange County Environmental Impact Ordinance (EIO)



# State statute allows County to require EAs

- Pursuant to Chapter 113-A of the NC General Statute “...**the County may require submission of a detailed environmental assessment for any proposed development of two acres or more.**”

# Current Chatham County Subdivision and Zoning regulations

An environmental assessment shall address the following areas:

- a. The **environmental impact** of the proposed action;
- b. Any **significant adverse environmental effects which cannot be avoided** should the proposal be implemented;
- c. **Mitigation measures** proposed to minimize the impact;
- d. **Alternatives** to the proposed action;
- e. The **relationship between the short-term uses** of the environment involved in the proposed action **and** the maintenance and enhancement of **long-term productivity**; and
- f. Any **irreversible and irretrievable environmental changes** which would be involved in the proposed action should it be implemented.

An Environmental Assessment (EA) should be required for projects that meet one or more of the following criteria:

- Qualifies as a **Major Subdivision** as defined in the Chatham County Subdivision Ordinance

Major Subdivision -- subdivisions of six (6) or more lots, or any size subdivision requiring any new street, or extension, or the creation of any public improvements (*Chatham Co. Subdivision Regulations, pg. 12*).

# Exemptions

- Minor subdivisions –
  - not more than five (5) lots fronting on an existing public street,
  - not involving any new streets or road,
  - no extension or the creation of any public improvements
- Non-subdivision projects involving 2 acres or less

These projects are exempt UNLESS they have one or more of the following criteria.

# For projects that involve...

- Hazardous or toxic waste
  - Generation or production
  - Treatment, storage or disposal

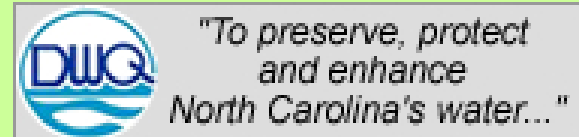


# For projects that...

- Require various State or Federal environmental permits

For example:

- Mining
  - Wastewater
  - 404/401 (impacts to streams and wetlands)
- Require an EA or EIS at the federal or state level



Chapter 113A.  
Pollution Control and Environment.  
Article 1.  
Environmental Policy Act.

# For projects that are located within...

- Critical areas for water supplies
- River corridors

Both of which are currently defined in existing Chatham County regulations

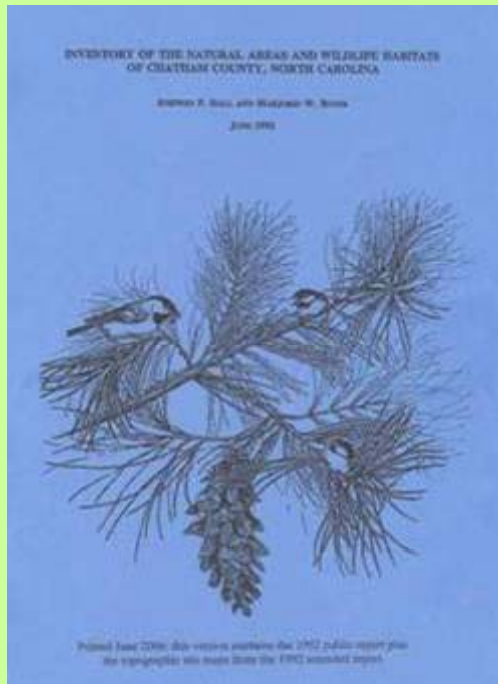


Rocky River



# For projects that contain or are adjacent to...

- Significant Natural Heritage Areas (SNHAs)





# For projects that lie within...

- Subwatersheds that support aquatic species that are Federally listed or listed as Federal Species of Concern.



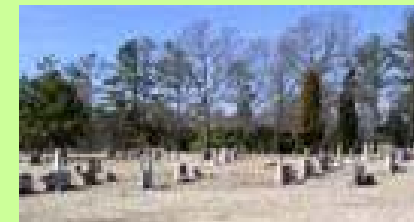
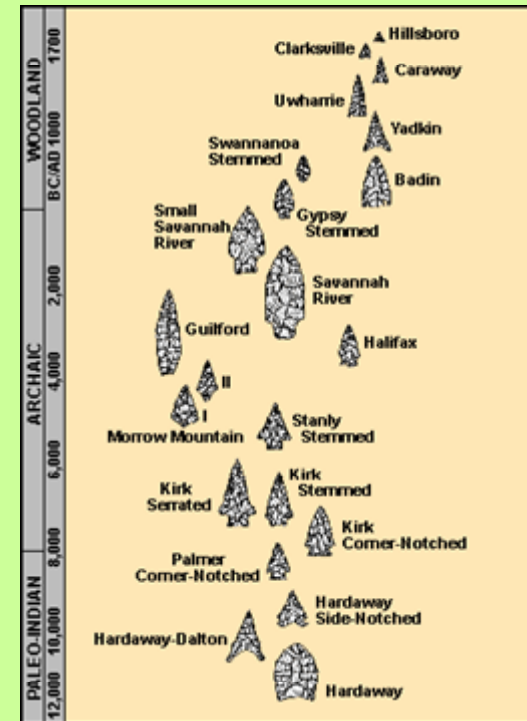
# For projects that contain...

- Natural heritage element occurrences (NHEOs)
  - Examples:
    - Rare species
    - High quality plant communities
    - Special wildlife habitats (e.g., wading bird rookeries)



# For projects that contain...

- Significant cultural and/or historical sites
  - historic structures
  - archaeological sites
  - cemeteries
  - Etc.



# For projects that *disturb*...

- Slopes 15% or greater

OR

- Slopes less than 15% but that have highly erodible soils (as determined by County soils data)



Issues identified since  
recommendations were submitted  
include:

- May be cumbersome to determine if criteria are met
- May have impact on small scale developer
- Some criteria may cover a large portion of the County

## How do you know if your project meets any of the EA Threshold Criteria?

- Maps and available data are used to determine if EA threshold criteria apply
- Electronic information for criteria will be made **readily available** to staff, developers and citizens

# Reducing impact on small scale developers

- Currently, distinction in our recommendations are based on Subdivision Ordinance:
  - **Major subdivision** (*>6 lots with road and extension of County services*)
  - **Minor subdivision** (*<6 lots with no road or extension of County services*)



# Sliding Scale Alternative

- Instead of Major/Minor Subdivision threshold, criterion could be based on # lots/acres
- If below # lots/acres, EA could still be necessary if other criteria are met
- Information could be required for any criteria met, regardless of whether a full EA is required.



For example:

***For Major Subdivisions of 25 units or less, and for all minor subdivisions...***

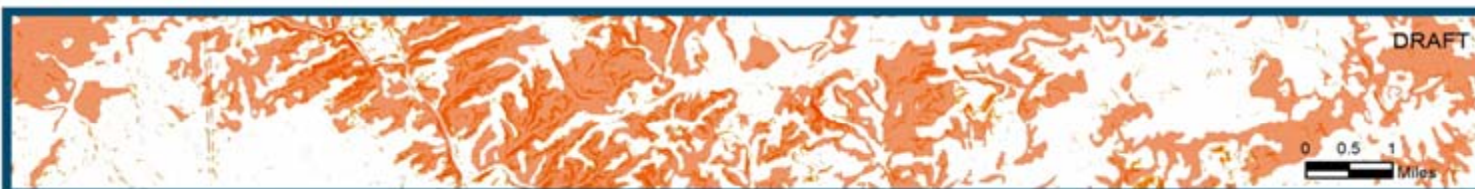
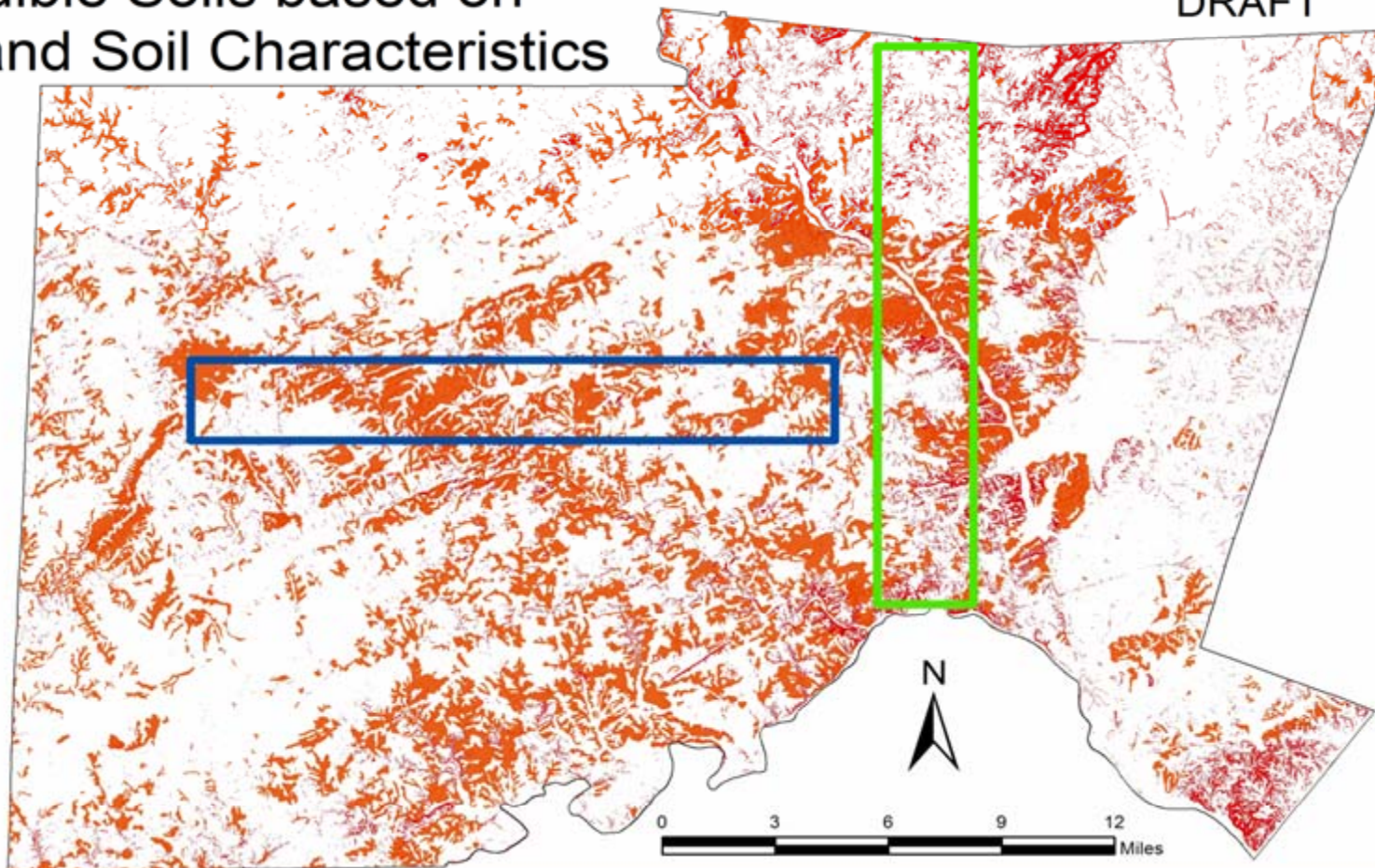
- An EA is required only if other threshold criteria are met.
- If another criterion is met, more information can be required (regardless of whether a full EA is needed).

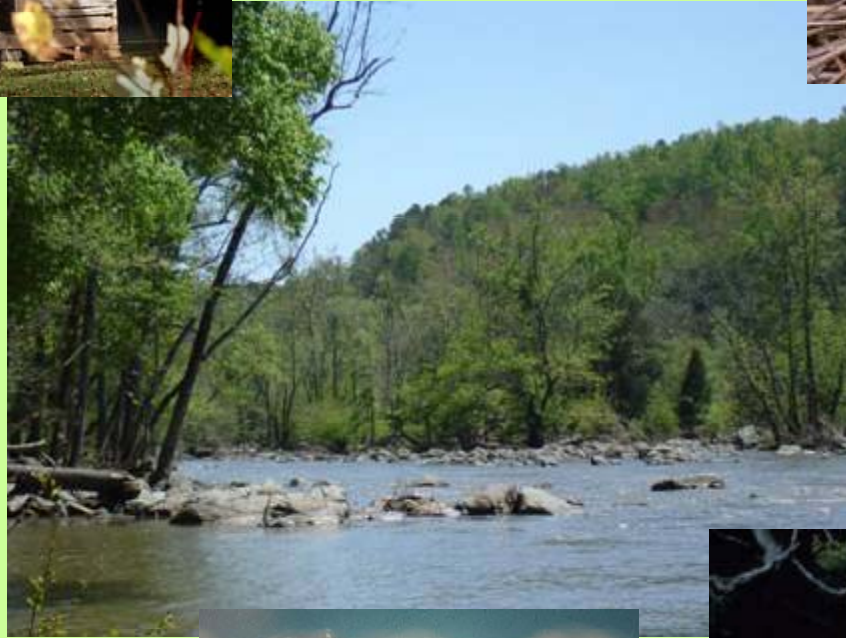
# Another alternative: Slopes and Soils

- Criterion could be revised to include those projects that *disturb*
  - **Slopes greater than or equal to 15 %**  
OR
  - **Slopes between 6% and 15% and a soil RUSLE K factor greater than 0.4** (a soil erodibility factor available from County soils data).
- Only those *disturbed* are included in this criterion

# Erodible Soils based on Slope and Soil Characteristics

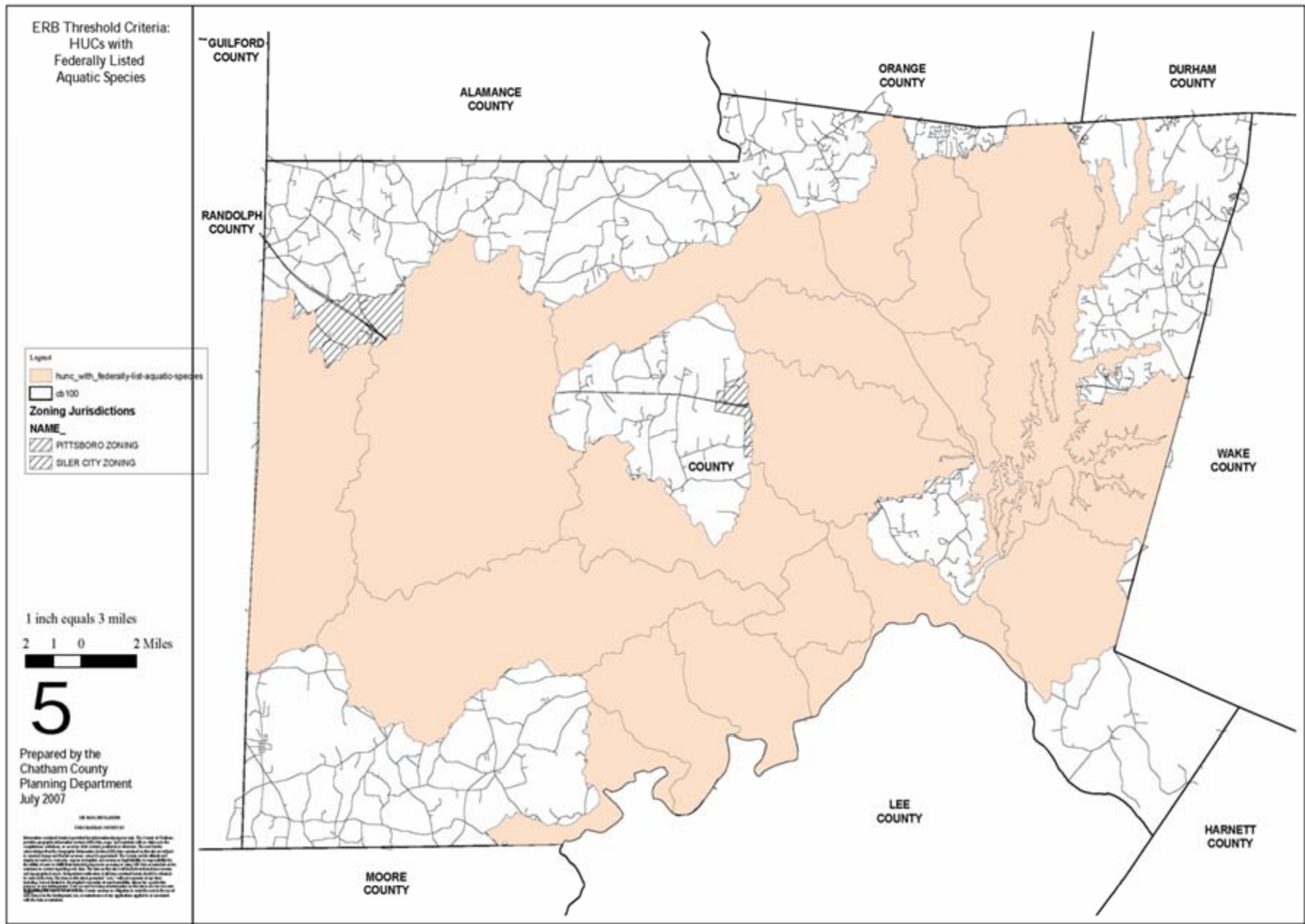
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**END**





14-digit HUs

# The RUSLE K factor

The **K** factor is a soil erodibility factor which represents both susceptibility of soil to erosion and the rate of runoff, as measured under the standard unit plot condition.

Soils having a high silt content are most erodible of all soils. They are easily detached and produce high rates of runoff. Values of K for these soils tend to be greater than 0.4.

The K factor is an established index for soil erodibility, published by soil types by NRCS.



# The ERB further recommends...

- EA threshold criteria be applied to Subdivision and Zoning regulations
- Process for EA review be established
- Standards and development review process be updated to consider aspects important for environmental protection

2) **Qualifies as a small or large generator of hazardous waste or as a treatment, storage and disposal facility** as defined by the North Carolina Department of Environment and Natural Resources (DENR), Division of Waste Management, Hazardous Waste Section.

3) Requires any of the following state or county Environmental permits:

- (a) A Mining Permit pursuant to the NC Mining Act.
- (b) A State NPDES (National Pollutant Discharge Elimination System) Permit, as administered by the NC Div. of Environmental Management (other than NCG010000 issued for land disturbing activities).
- (c) A Non-Discharge Permit for a land application waste disposal system.
- (d) A permit for any subsurface wastewater disposal system of 3000 gallons/day or larger.
- (e) A permit for sludge disposal site.
- (f) A 404 permit/401 certification.

- 4) **Requires Environmental Documentation** (such as an EA or EIS) by a State or Federal agency.
- 5) **Is located within the Water Quality Critical Area of the Water Supply Watershed** as defined by the Chatham County Watershed Protection Ordinance, or in a state designated Well Head Protection Area.
- 6) **Lies within a river corridor** as defined by the Chatham County Watershed Protection Ordinance.

- 7) **Contains element occurrences (EOs) of natural diversity, including rare species**, as determined by and tracked by the NC Natural Heritage Program (NHP), NC Wildlife Resources Commission (WRC), and US Fish and Wildlife Service (FWS).
  
- 8) **Contains or is adjacent to (shares at least one boundary with) a Significant Natural Heritage Area (SNHA)** as recognized by the NC Natural Heritage Program (NHP).

- 9) **Lies within a designated 14 digit Hydrologic Unit (HU) drainage basin** that supports aquatic species that are **federally listed or listed as Federal Species of Concern.**
  
- 10) **Contains significant cultural and/or historical sites** as defined by NC Office of Archaeology and/or Chatham Historical Association.

11) **Contains lands to be disturbed with slopes 15% or greater (outside of drainage easements or stream buffers)**, as determined by USGS Topographic maps, at a contour interval of the highest resolution available;

OR

for slopes less than 15%, **has a RUSLE K factor of 0.45 or more** as tabulated in the Natural Resource Conservation Service (NRCS) Chatham County Soil Survey.