

Watershed Education for Communities and Local Officials



NC Cooperative Extension,
NCSU

Patrick Beggs

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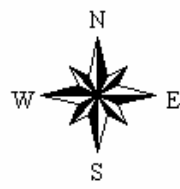
Troublesome Creeks Local Watershed Plan Recommendations

Troublesome Creeks
Local Watershed
Planning Team



Outline

- the work completed
- the issues identified
- potential options to address these issues



**Troublesome & Little Troublesome
Creek Watersheds**



*Dan - Roanoke
River Basin*

Reidsville

HU 10010

HU 10030

US-158

NC-65

Troublesome Creek

Glady Creek

Lake Reidsville

Little Troublesome Creek

Stokesdale

Rockingham Co.

Guilford Co.

NC-87

HAW RIVER

Summerfield

Mears Fork Creek

HU 10020

US-29

Banala Creek

Candy Creek

Rose Creek

NC-150

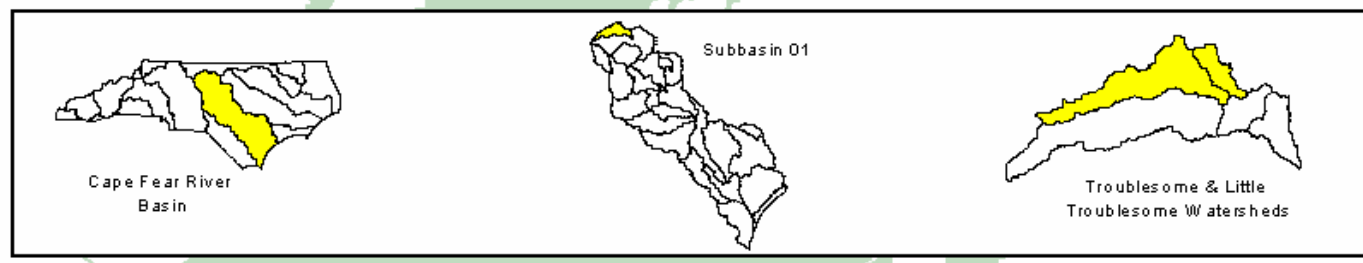
HAW RIVER

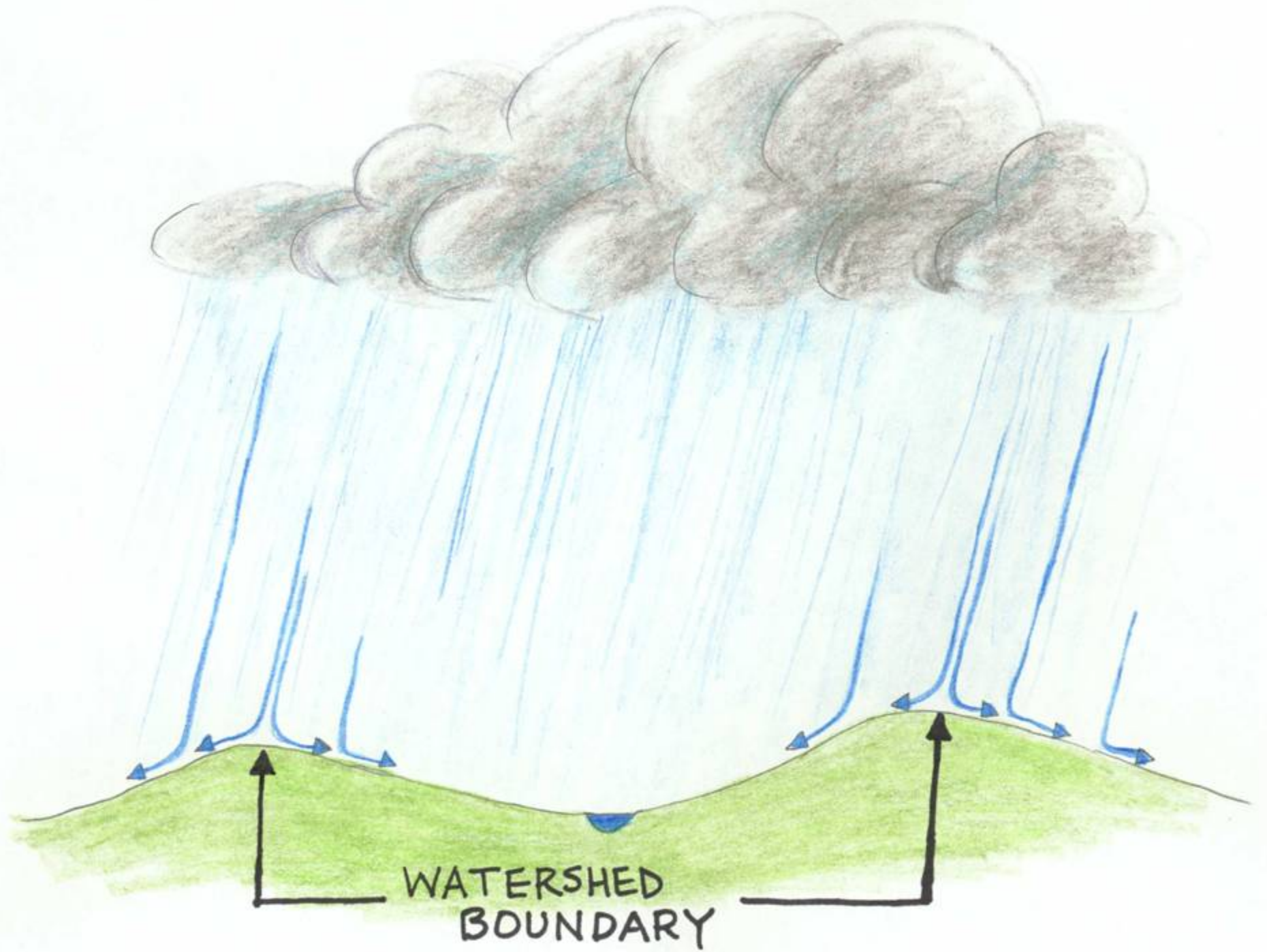
Caswell Co.

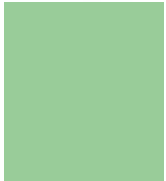
Alamance Co.

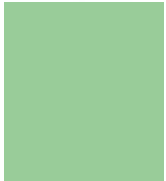
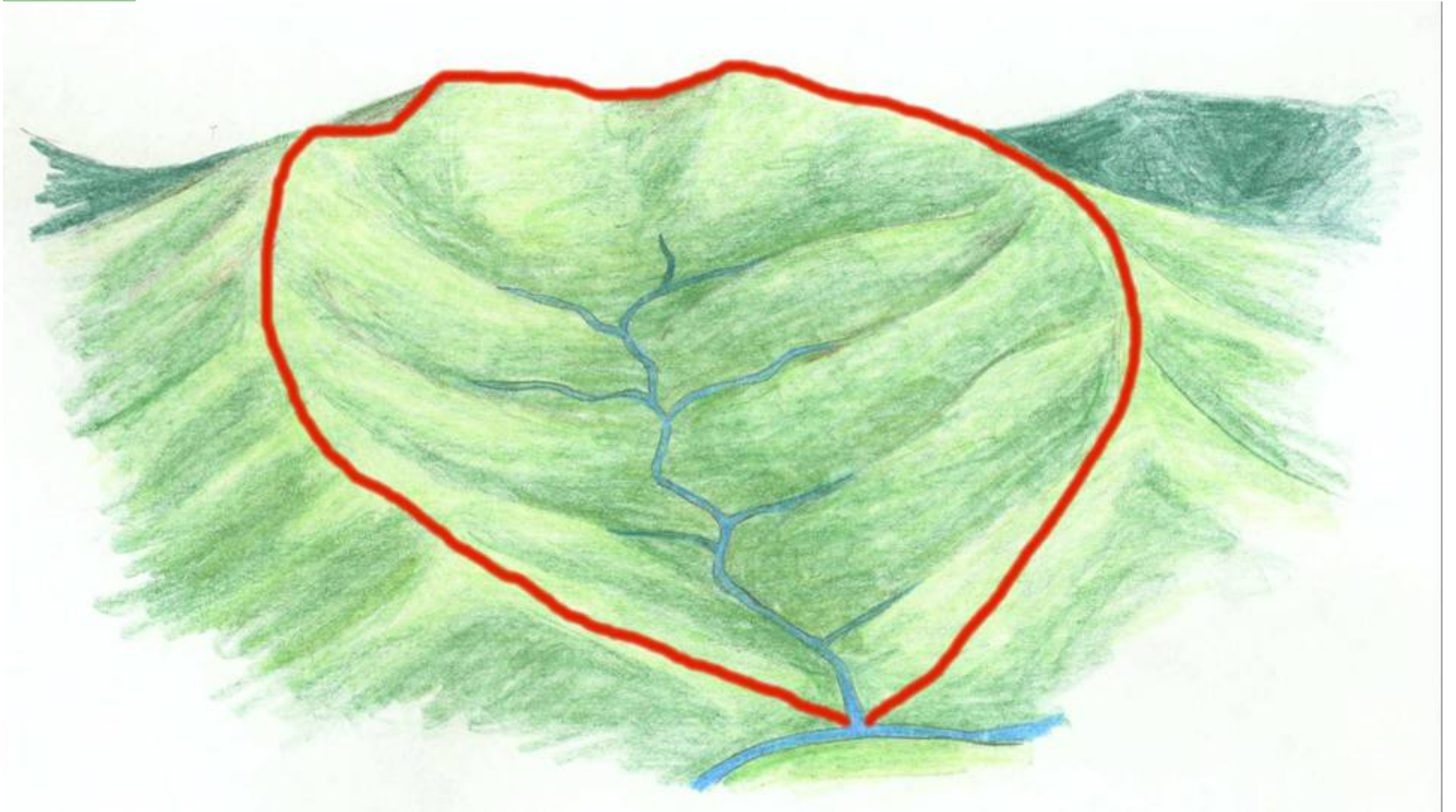


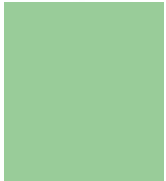
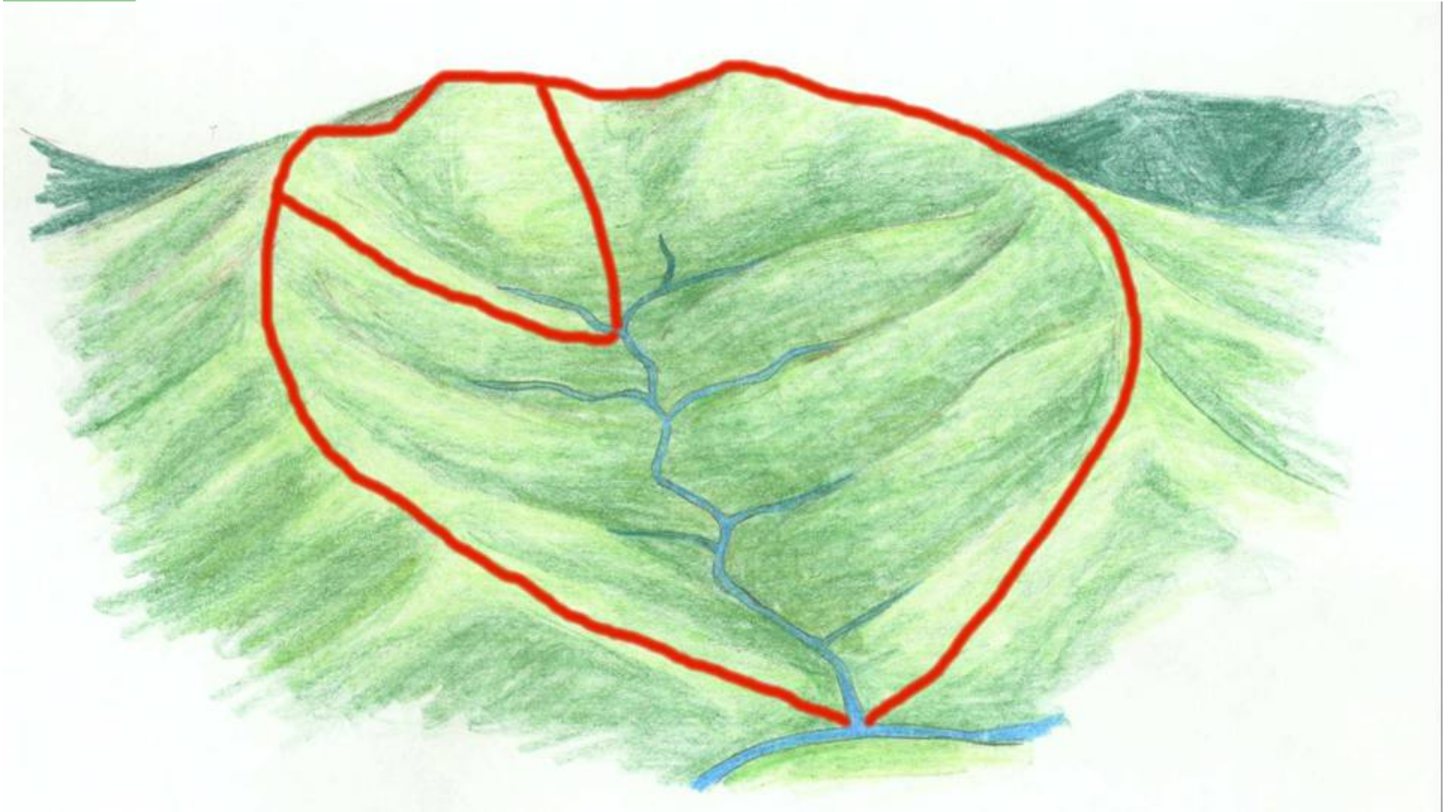
Greensboro

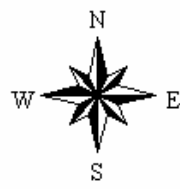












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NC-68

HAW RIVER

US-220

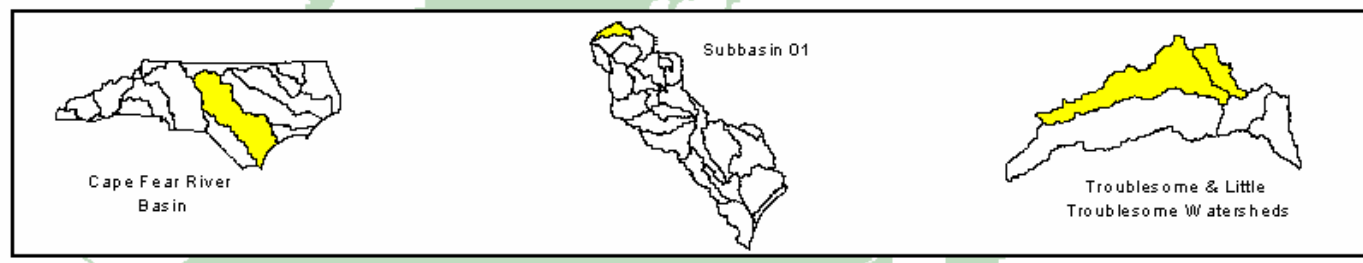
HU 10020

2 0 2 4 6 8 10 Miles









Greensboro

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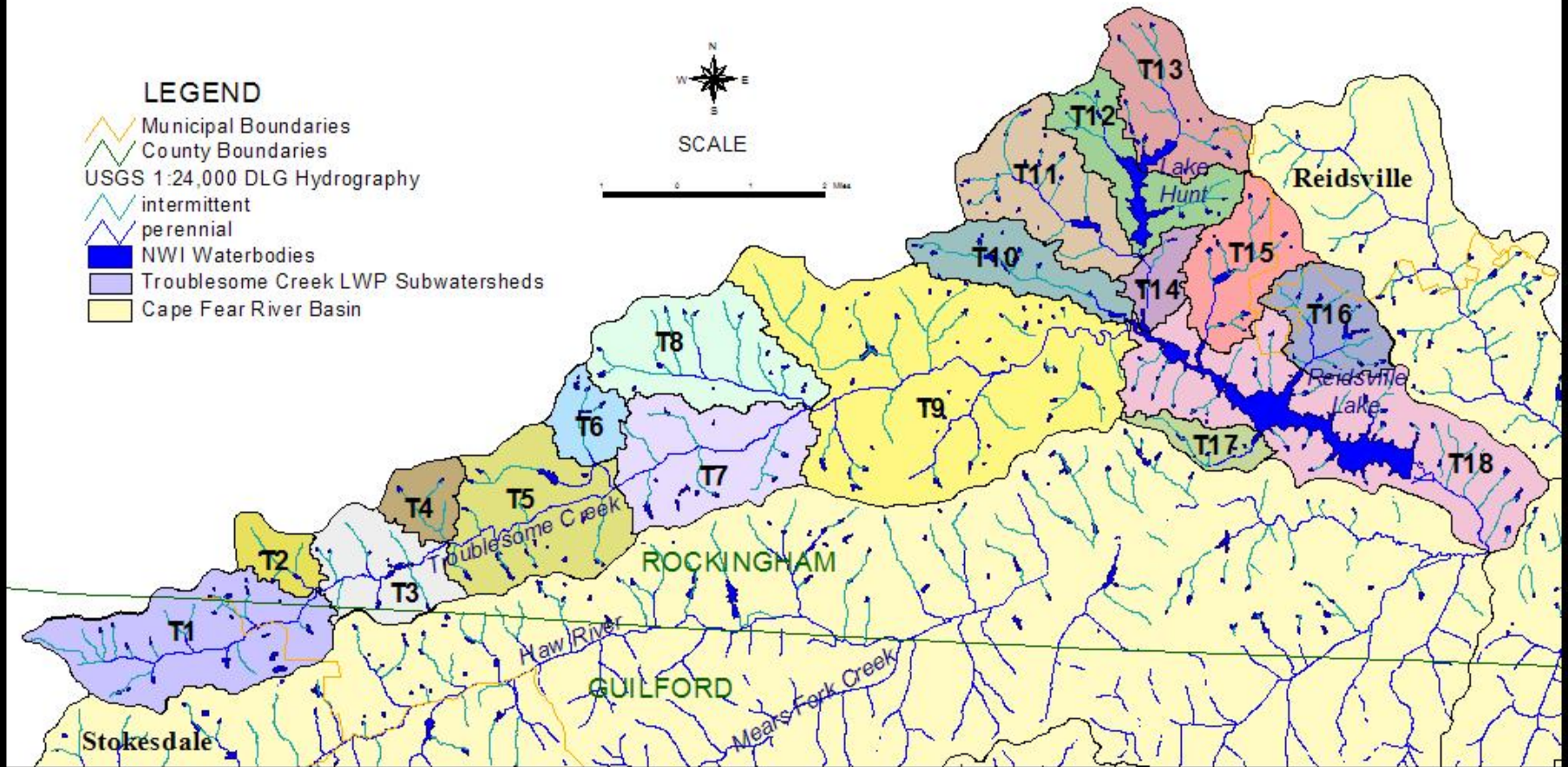


LEGEND

-  Municipal Boundaries
-  County Boundaries
-  USGS 1:24,000 DLG Hydrography
-  intermittent
-  perennial
-  NWI Waterbodies
-  Troublesome Creek LWP Subwatersheds
-  Cape Fear River Basin



SCALE











Why Local Watershed Planning?

- NC Ecosystem Enhancement Program (EEP) is charged with finding restoration sites where there may be future DOT impacts.
- Considers local interests
- Holistic approach, comprehensive
 - Includes water quality, flood prevention, habitat, history, culture, local opinion

Findings

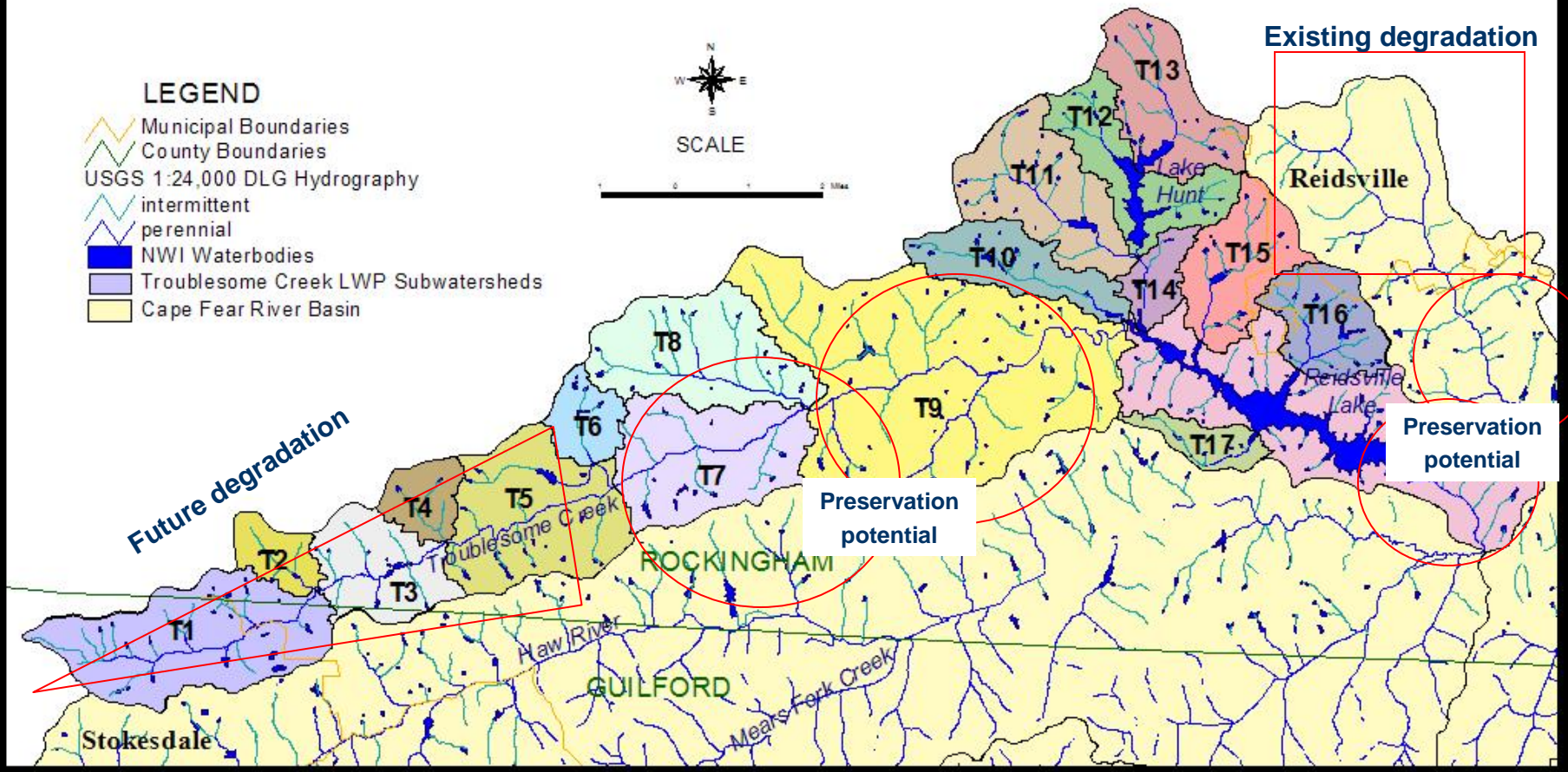
Biggest threat to watershed functions in Troublesome Creek and Little Troublesome Creek watersheds, both now and in the future, is from stream erosion and instability, due to development.

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SCALE



Future degradation

Preservation potential

Existing degradation

Preservation potential

The Recommendations

- All Voluntary
- Management recs. are dependant upon local governing bodies
- Project recs. are dependatnt on landowner approval
- EEP is a non-regulatory agency
- 11 Recommendations (10 Mngt)

1. Establish a local sedimentation and erosion control program.



2. Strengthen / establish requirements to protect and maintain buffers.



3. Strengthen local 100-year floodplain protection rules



4. Encourage Low Impact Development (LID) design strategies.

- An approach to development and stormwater management that helps protect water resources and watershed hydrology.
- Incorporates protection into the development of the site, instead of compensating after the fact

5. Adopt stormwater ordinances to prevent degradation of streams



6. Explore off-site mitigation

- Allows for higher intensity land uses by targeting mitigation in high priority preservation areas.
- May better suit your needs than on-site

7. Explore conservation zoning

- Pertains to a specific area
- Strict on-site stormwater performance standards for new development.
- Jordan Lake Nutrient Mgt Study and EPA Stormwater Rules may eventually require these performance standards

OPEN SPACE DESIGN (33 LOTS)



8. Develop a land or conservation easement purchase program.

- Working together with:
 - Ecosystem Enhancement Program
 - Soil and Water Conservation Districts
 - NRCS
 - Piedmont Land Conservancy
 - Local land owners
 - Other agencies

9. Support Voluntary Agriculture Districts.



- DONE
- Thanks to local landowners, area Ag agencies, and you.
- 1st Advisory Board meeting – October 6th

10. Establish a long-term local watershed steering committee.

- Provide local oversight, expertise and leadership
- Consisting of government staff, natural resource agencies, local citizens, & others.

11. Support the implementation of specific local projects

- The Troublesome Creeks LWP Stakeholder Team supports the implementation of specific restoration, preservation, and stormwater best management practice projects at sites identified and screened by the watershed assessment consultant [TetraTech] and/or NC EEP.

Questions?



Ecosystem Enhancement Program

George Norris

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