

Little Lick Creek Watershed Plan

Technical Team Meeting 4
Wednesday, July 20, 2005

Agenda

1:30 Welcome & announcements

1:45 Critical Lands Protection Analysis*

2:30 Field Trip: Potential Restoration Project
(5-minute break included)

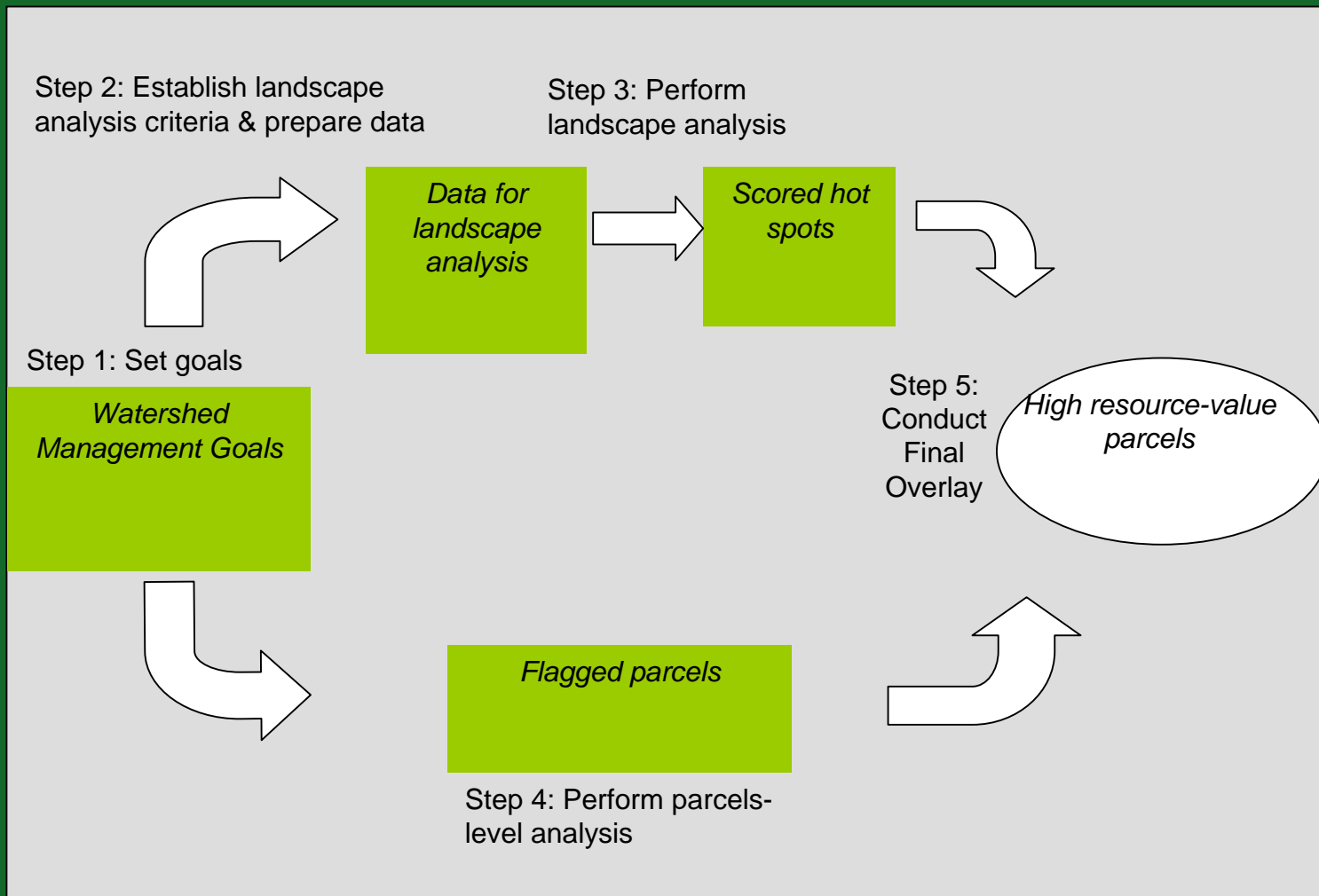
3:15 Prioritizing Restoration Projects*

4:00 Adjourn

* Decision Item

Critical Lands Protection Analysis

Analysis Process



Criteria

Landscape Analysis

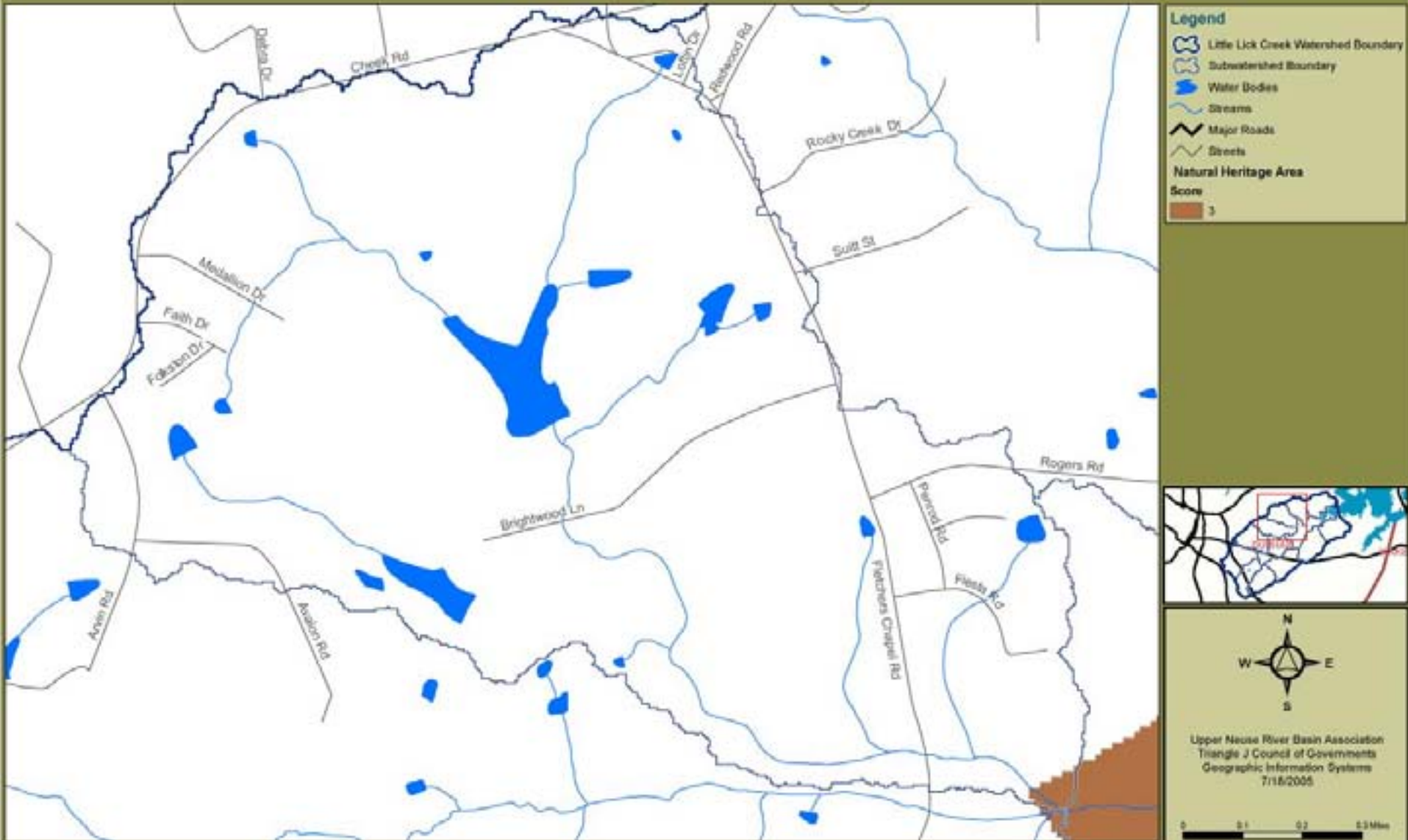
Example: Subwatershed 8

Little Lick Creek Critical Areas Analysis - Subwatershed 8 (Draft, 7/18/2005)



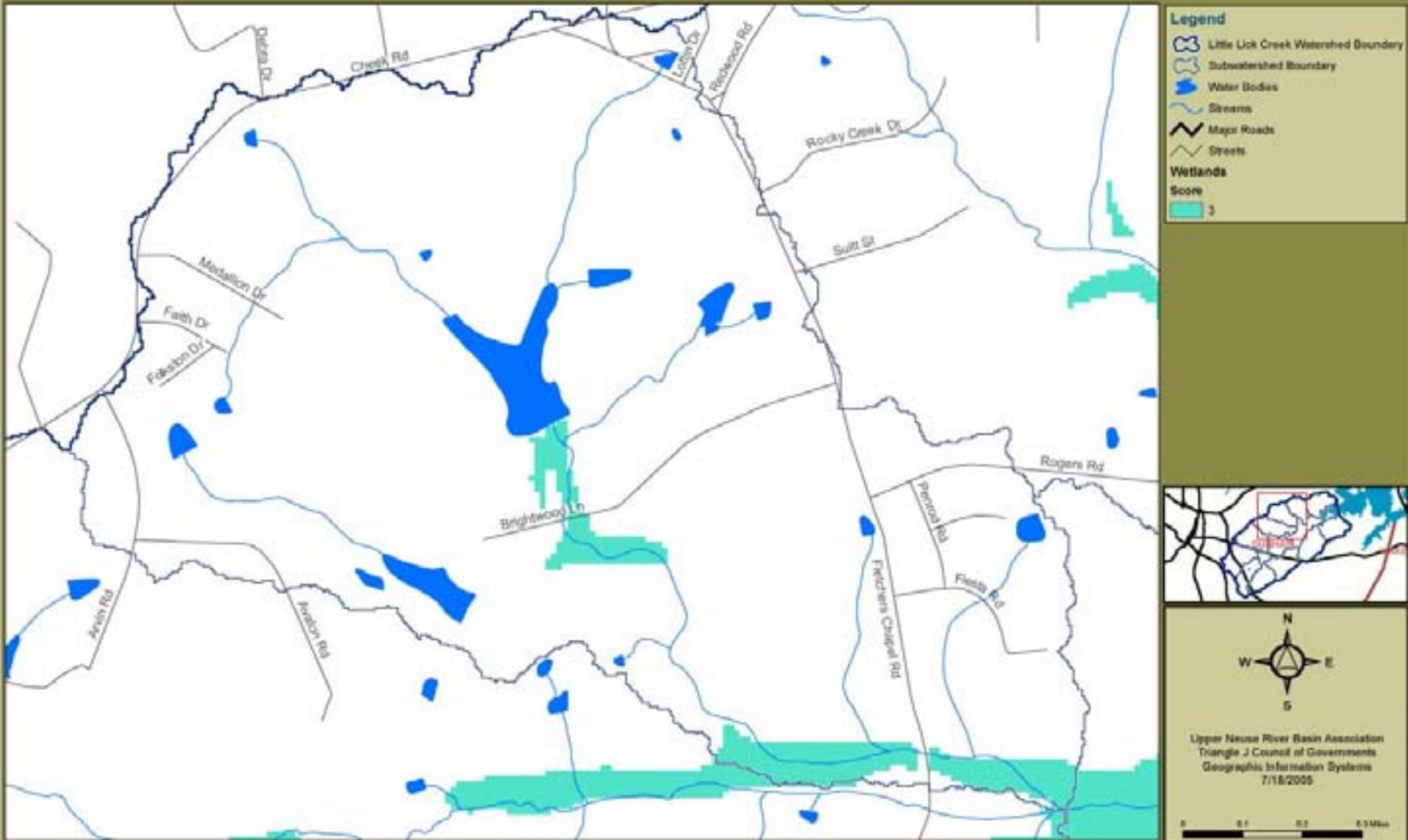
Example: Subwatershed 8

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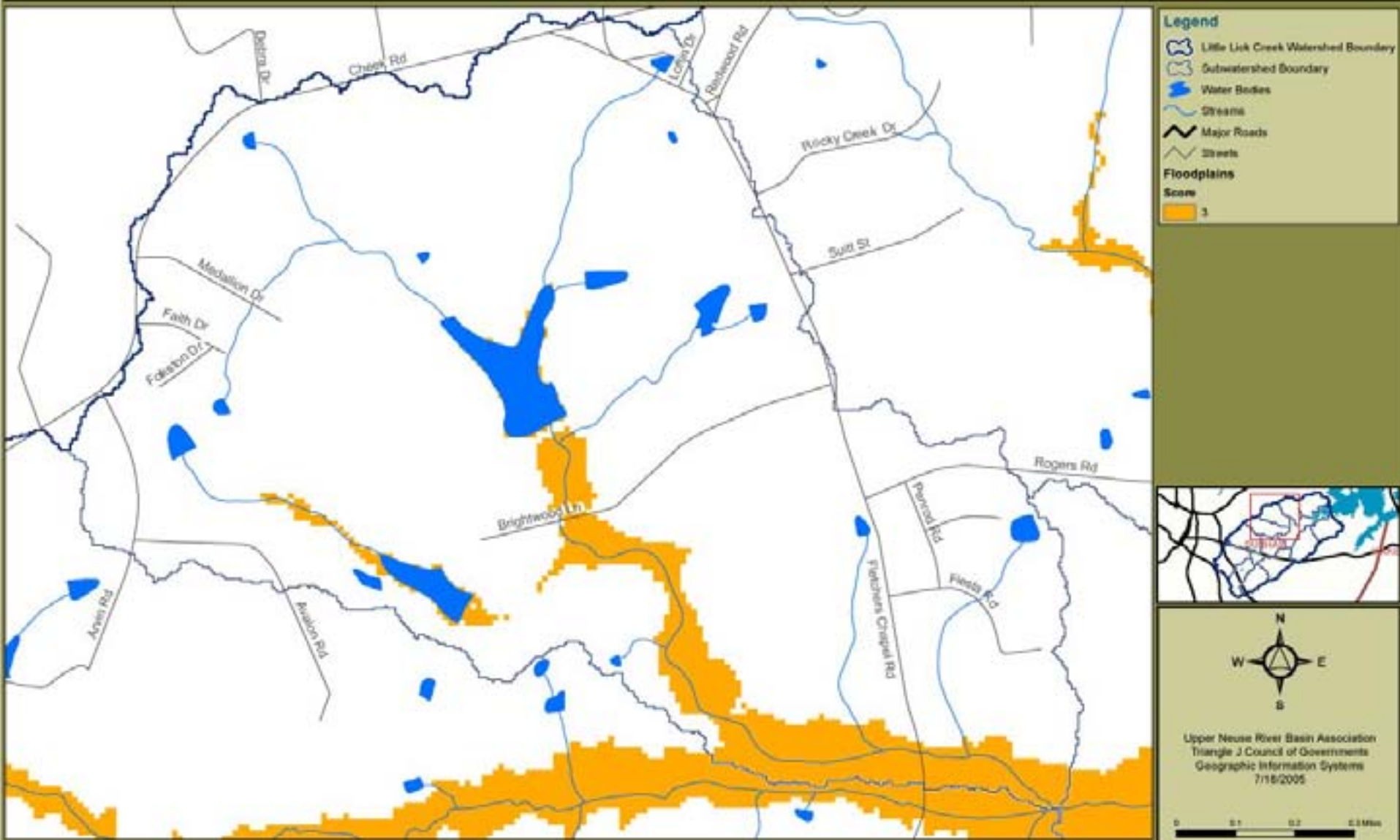
Wetlands

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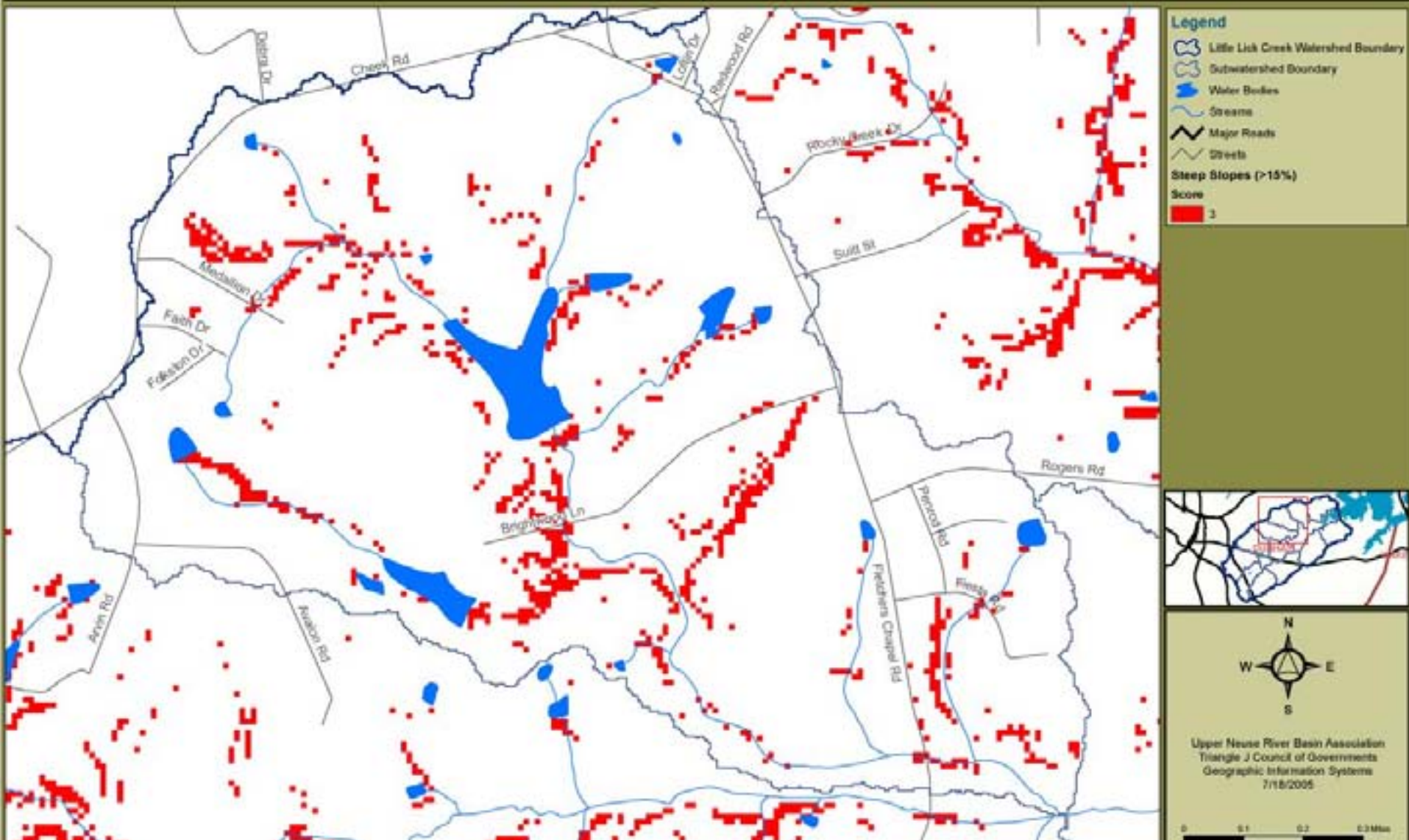
Floodplains

Little Lick Creek Critical Areas Analysis - Subwatershed 8 (Draft, 7/18/2005)



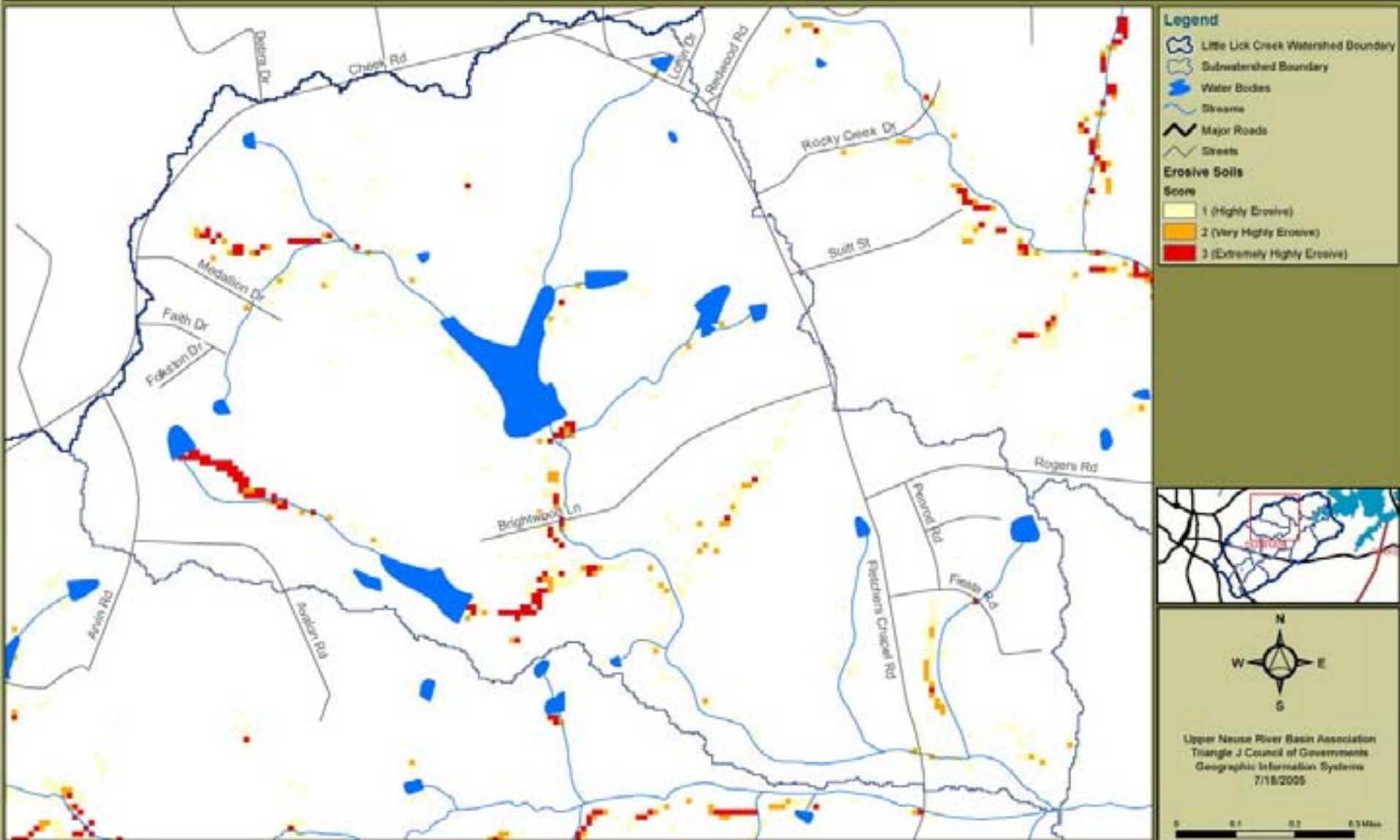
Steep Slopes

Little Lick Creek Critical Areas Analysis - Subwatershed 8 (Draft, 7/18/2005)



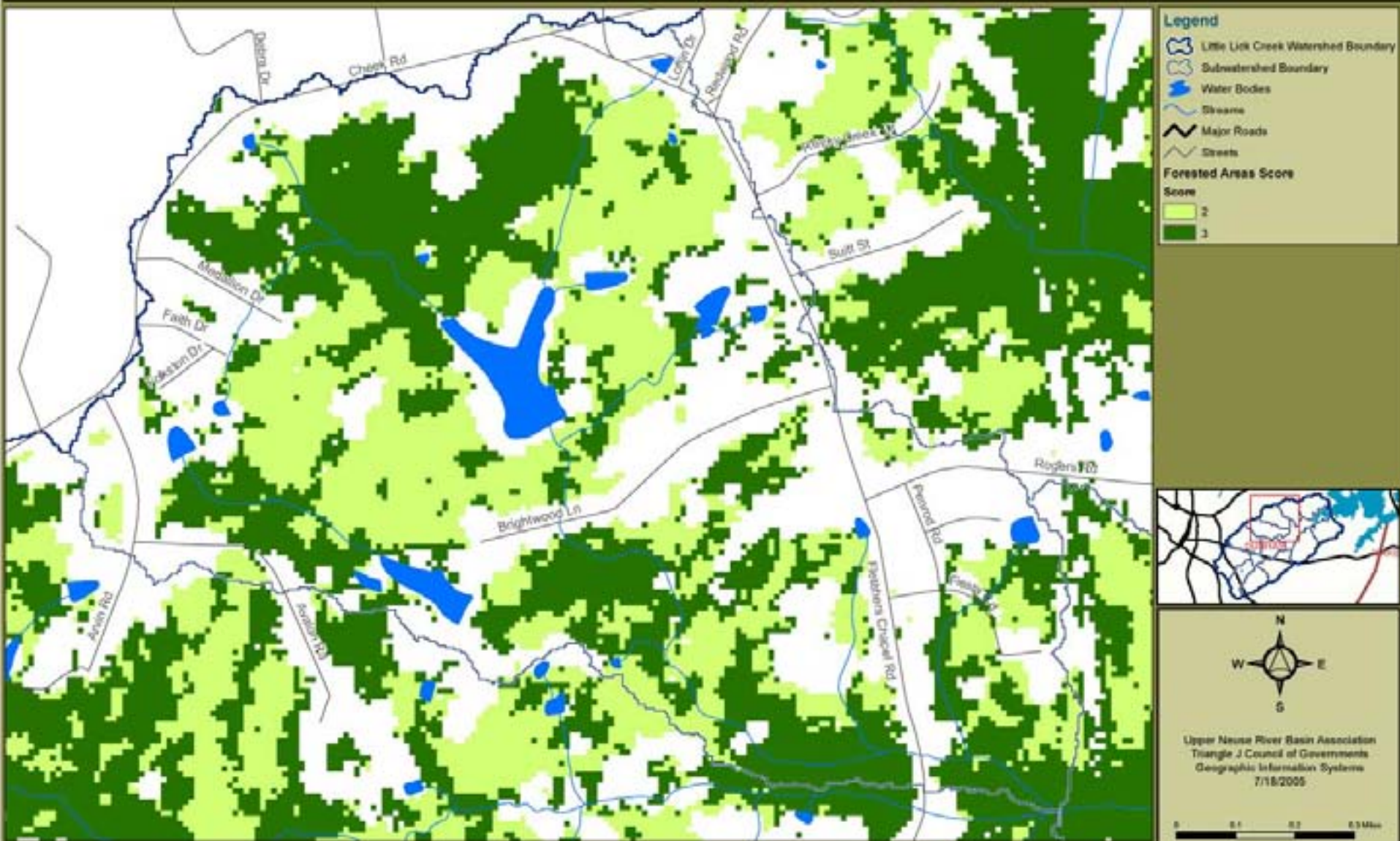
Erosive Soils

Little Lick Creek Critical Areas Analysis - Subwatershed 8 (Draft, 7/18/2005)



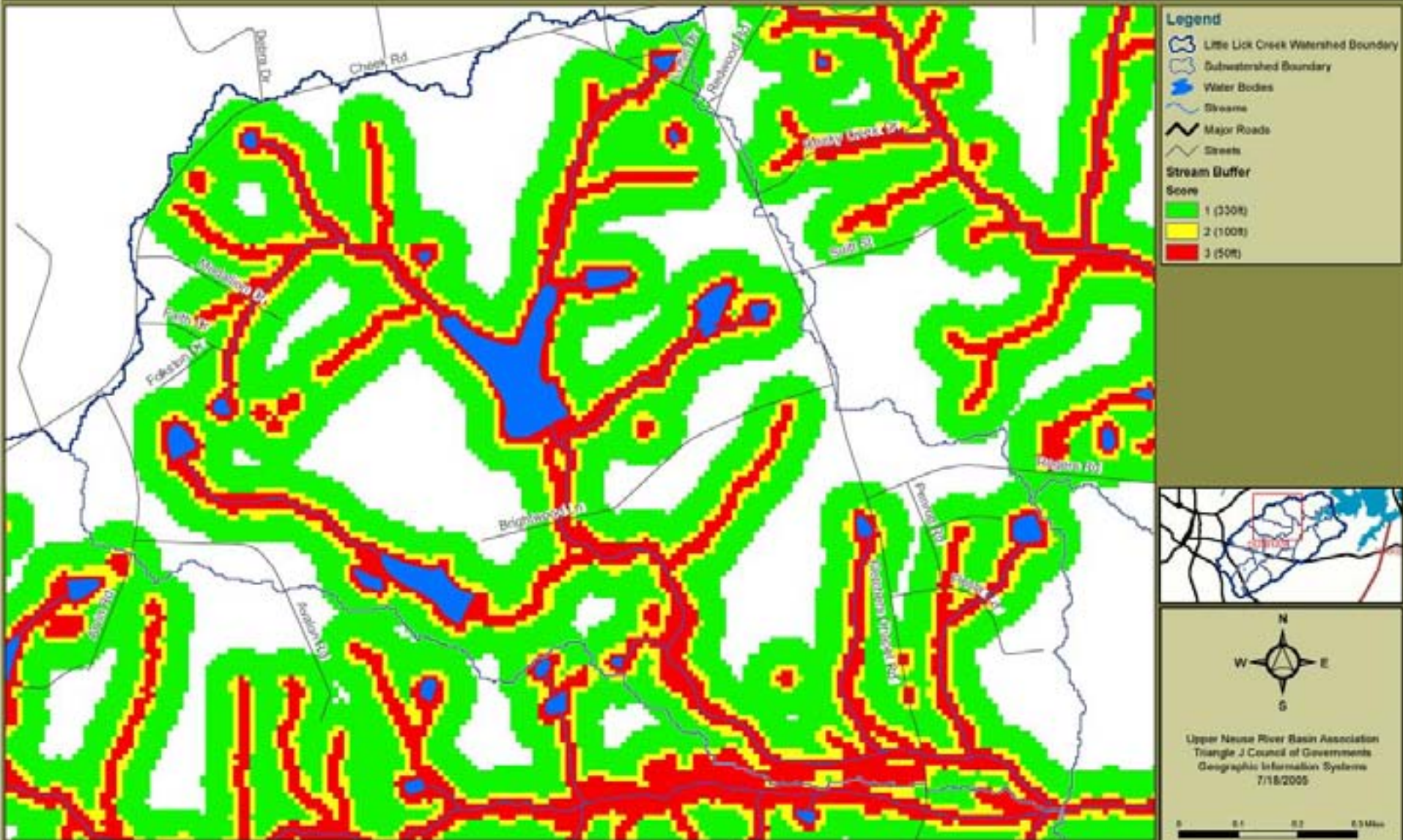
Forested Areas

Little Lick Creek Critical Areas Analysis - Subwatershed 8 (Draft, 7/18/2005)



Stream Buffers

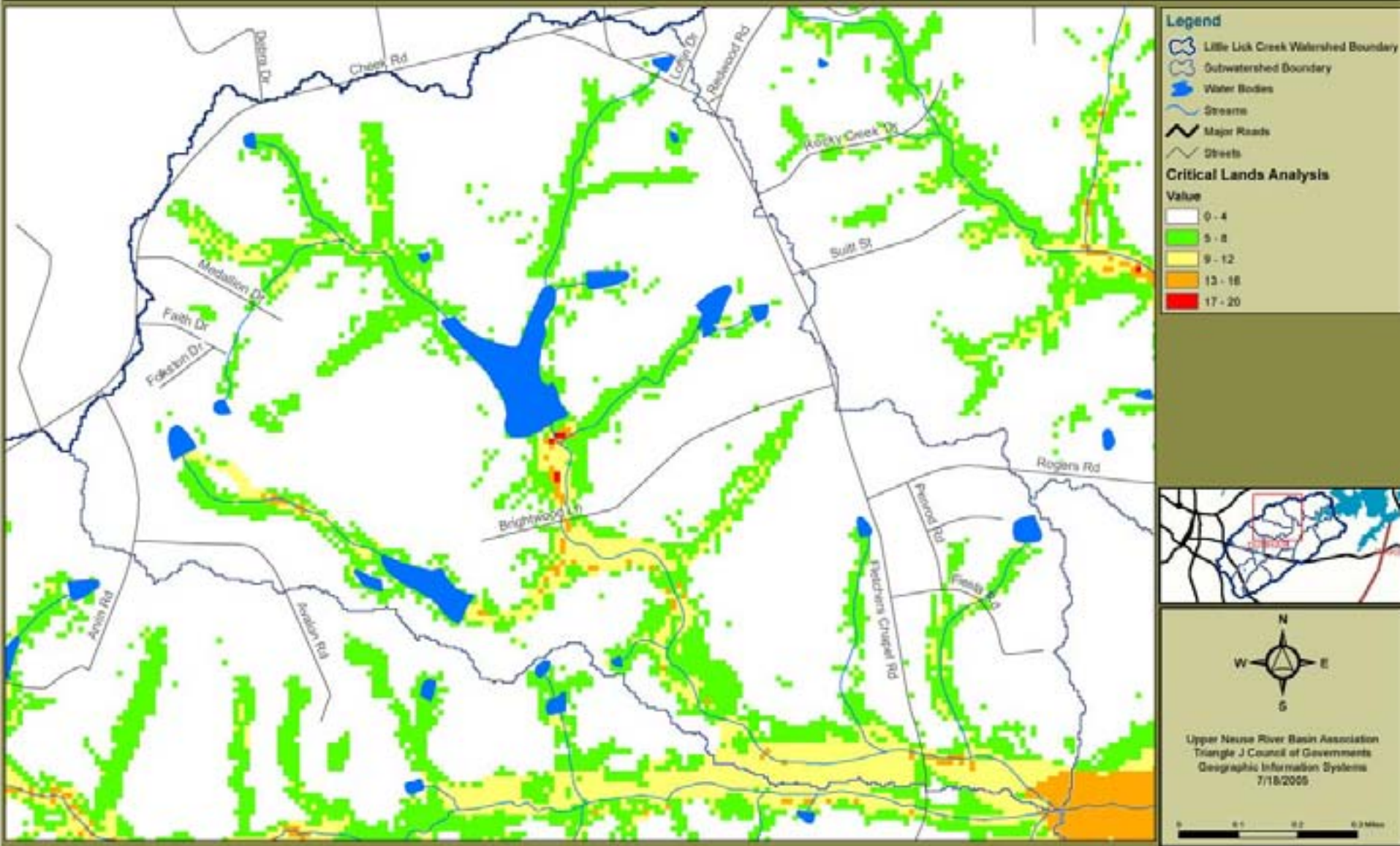
Little Lick Creek Critical Areas Analysis - Subwatershed 8 (Draft, 7/18/2005)



Landscape Analysis Criteria (the presence of)	Priority Level	Data Set	Score	Percent of Total Score
Endangered, threatened or rare species or natural communities	High	Natural Heritage Element Occurance in the Little Lick Creek Watershed	3	11.54%
NC Natural Heritage Areas	High	Little Lick Creek Natural Heritage Areas	3	11.54%
Wetlands	High	Falls Lake functional wetland data for Little Lick Creek Watershed	3	11.54%
Floodplains	High	Little River flood hazard polygons	3	11.54%
Steep slopes: over 15%	High	Slopes in the Little River Watershed derived from 20-ft DEM	3	11.54%
Highly Erosive Soils	High	Little River Watershed soils data with K-values: A > 1.6	3	11.54%
	Medium	Little River Watershed soils data with K-values: A = 1.2-1.6	2	
	Low	Little River Watershed soils data with K-values: A = 0.8-1.2	1	
Outstanding geologic characteristics	Medium	Generalized geologic data for Little Lick Creek Watershed - Diabase Formation	2	7.69%
Significant forest cover: deciduous	High	Little River Watershed EPA landcover classes, 15 meter resolution - Landuse Code 310 (Woody-Deciduous) and 620 (Woody Wetland)	3	11.54%
Significant forest cover: Mixed deciduous/pine	High	Little River Watershed EPA landcover classes, 15 meter resolution - Landuse Code 330 (Woody-Mixed)	3	
Significant forest cover: pine	Medium	Little River Watershed EPA landcover classes, 15 meter resolution - Landuse Code 320 (Woody-Evergreen)	2	
Area close to Little Lick Creek or tributaries: 50 feet	High	50-ft buffer of Little Lick Creek and tributaries derived from combined Durham Hydro and USGS 1:24K	3	11.54%
Area close to Little Lick Creek or tributaries: 100 feet	Medium	100-ft buffer of Little Lick Creek and tributaries derived from combined Durham Hydro and USGS 1:24K	2	
Area close to Little Lick Creek or tributaries: 330 feet	Low	330-ft buffer of Little Lick Creek and tributaries derived from combined Durham Hydro and USGS 1:24K	1	
Total			26	100.00%

Protection Hot Spots

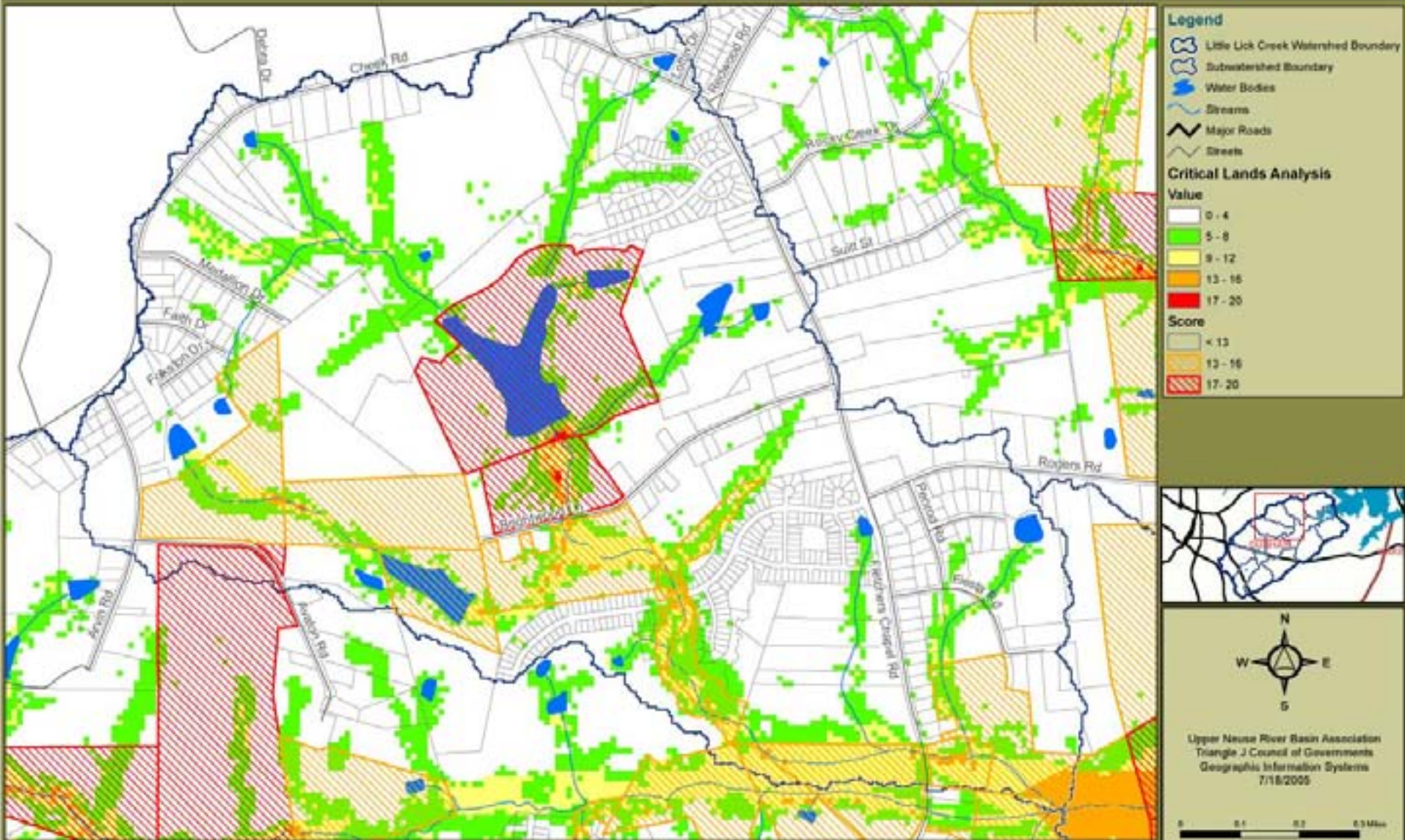
Little Lick Creek Critical Areas Analysis - Subwatershed 8 (Draft, 7/18/2005)



Parcels-level Analysis

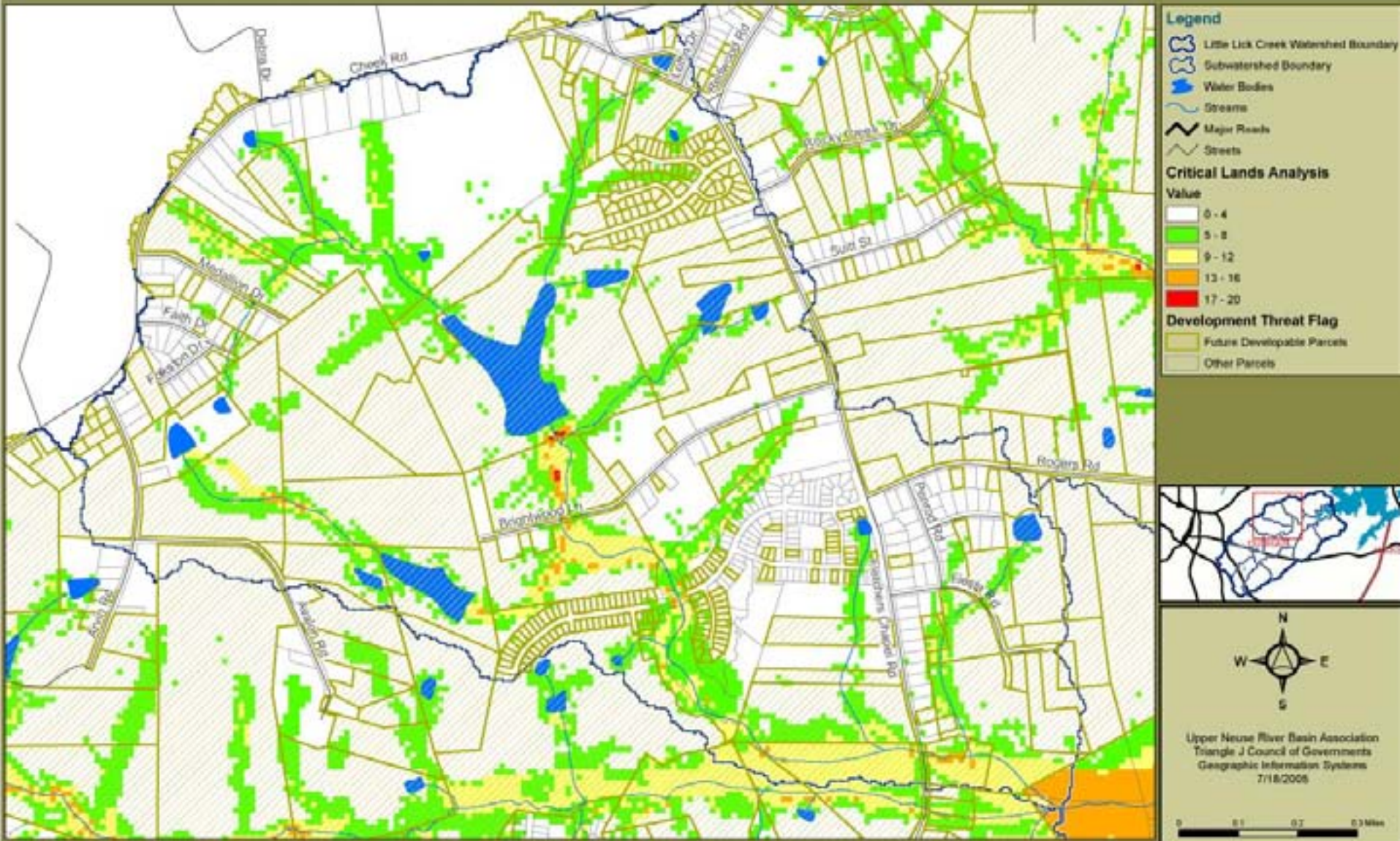
Tracts intersecting high scores

Little Lick Creek Critical Areas Analysis - Subwatershed 8 (Draft, 7/18/2005)



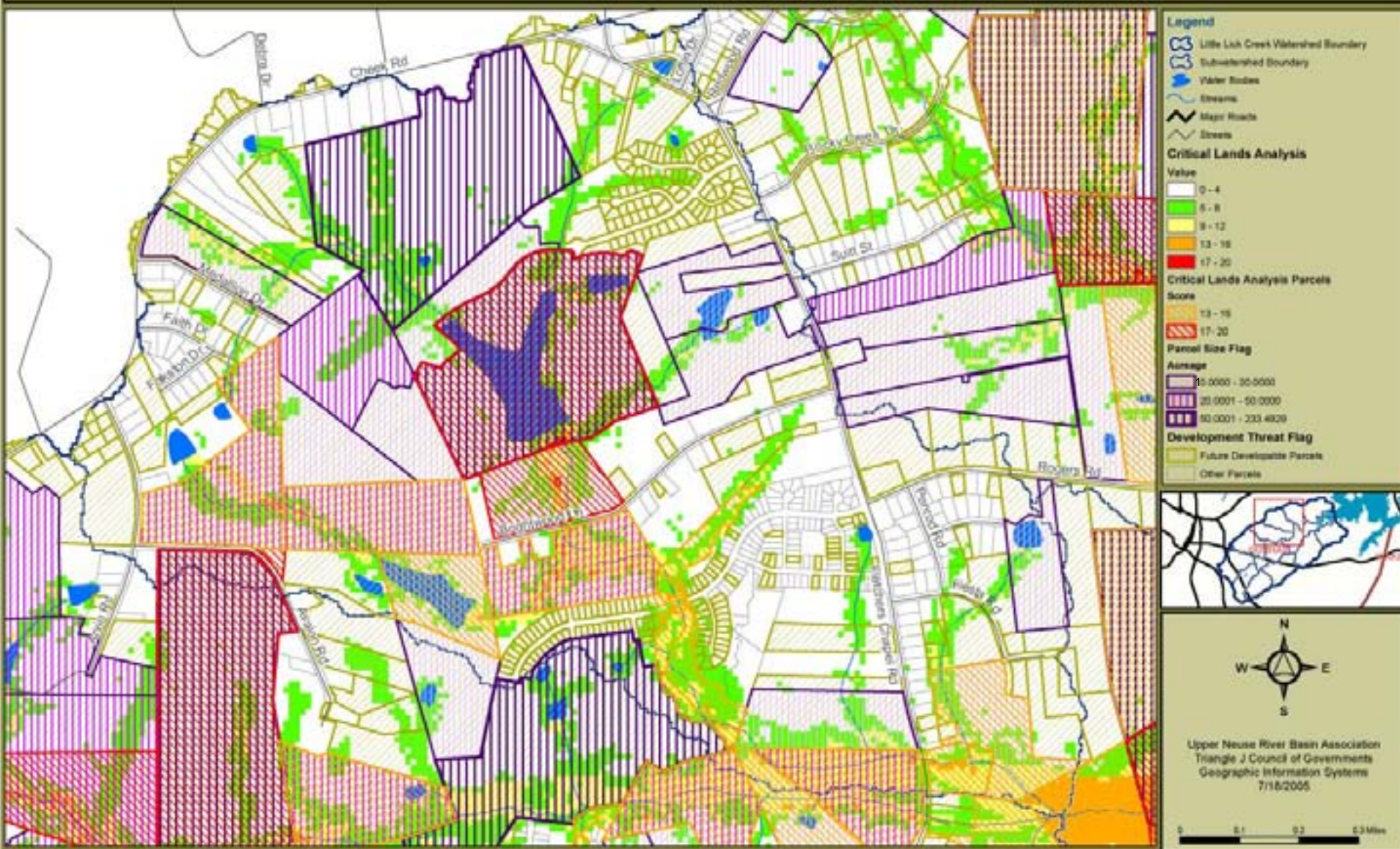
Potentially Developable Parcels

Little Lick Creek Critical Areas Analysis - Subwatershed 8 (Draft, 7/18/2005)



Overlay

Little Lick Creek Critical Areas Analysis - Subwatershed 8 (Draft, 7/18/2005)



Legend

- Little Lick Creek Watershed Boundary
- Subwatershed Boundary
- Water Bodies
- Streams
- Major Roads
- Streets

Critical Lands Analysis

Value

- 0-4
- 5-8
- 9-12
- 13-16
- 17-20

Critical Lands Analysis Parcels

Score

- 13-16
- 17-20

Parcel Size Flag

Average

- 0-20,000
- 20,001-50,000
- 50,001-333,400

Development Threat Flag

- Future Developable Parcels
- Other Parcels



Upper Neuse River Basin Association
 Triangle J Council of Governments
 Geographic Information Systems
 7/18/2005

0 0.1 0.2 0.3 Miles

Next Steps

1. Finalize critical lands analysis and present findings
2. Conduct field verification of critical lands analysis

BREAK

Prioritizing Restoration Projects

Stream Repair Projects



Buffer Restoration Projects



Stormwater Retrofit Projects



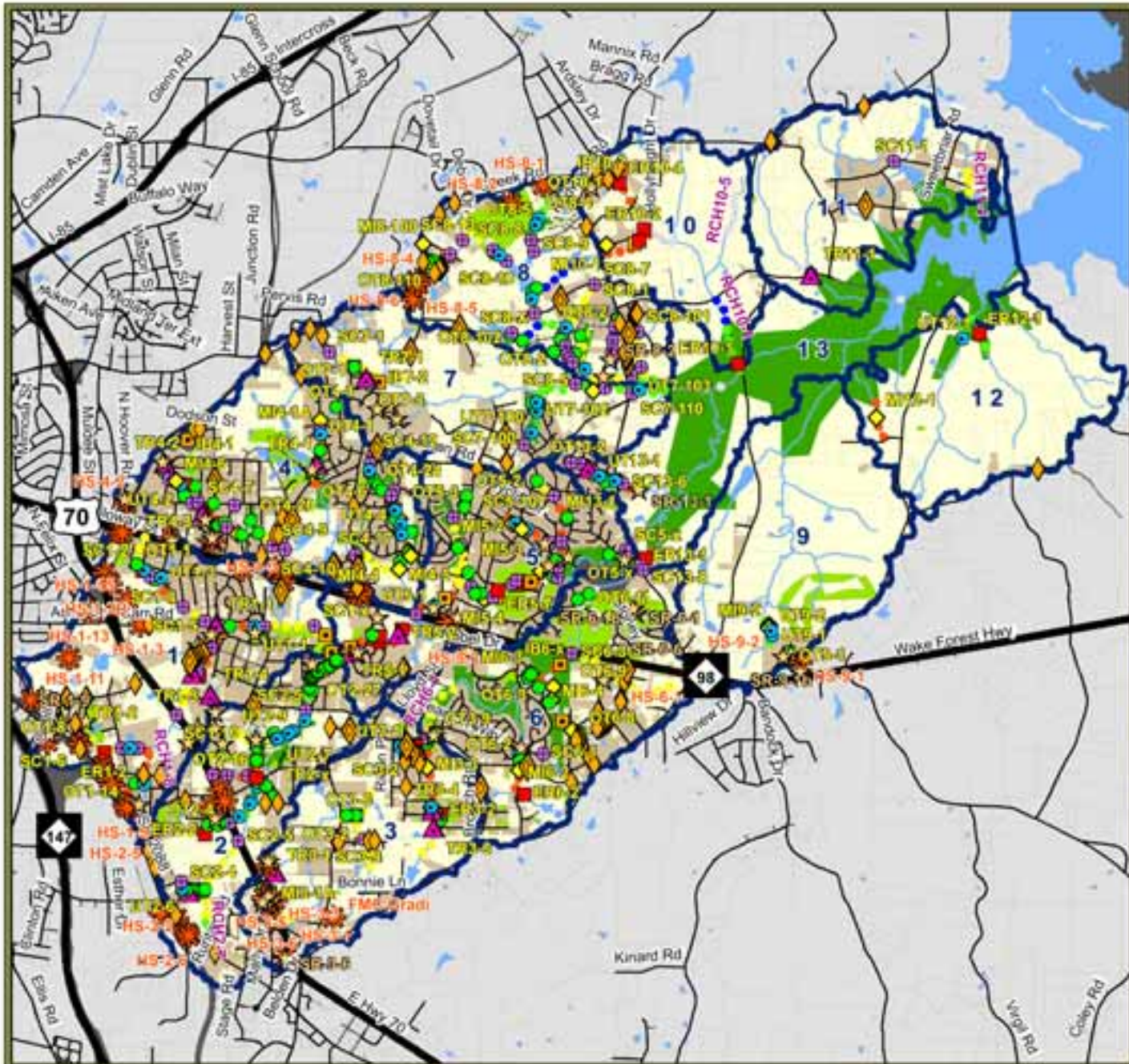
Pollution Hot Spots



Pollution Hotspots: Wastewater Spills



Little Lick Creek Watershed Potential Restoration Projects (Draft, 6/14/2005)



- ☆ Stormwater Retrofit Sites
- ☀ Hotspot Priorities
- Sand Filters**
 - ◇ Single
 - ◊ Multiple
- Stream Impacts**
 - Erosion
 - Instream Buffer
 - ◇ Mass Impacts
 - ⊕ Stream Channeling
 - △ Trash Dumping
 - Utility Impacts
 - Outlet
- Total Score**
 - Poor
 - Fair
 - Good
 - Excellent
- Parcel Land Use Category**
 - Water
 - Protected Natural Area
 - Urban Green Space
 - Future Developable Areas
 - Existing Developed Areas
 - Road Right-of-Way
 - Outside of Watershed
- Major Subwatershed Boundary
- Parcels
- Major Roads
- Streets

Upper Neuse River Basin Association
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 Geographic Information Systems
 6/14/2005

0 0.5 1 Miles

Restoration Prioritization

How do we evaluate individual restoration projects?

- Need for project exists
- Environmental benefits
- Community benefits and support
- Project feasibility

Little Lick Creek Goals

1. Improve hydrology of the Little Lick Creek Watershed
2. Restore and protect aquatic and riparian habitat
3. Improve water quality
4. Protect water quality and habitat in Falls Lake
5. Improve natural conditions for people living in the watershed
6. Foster community stewardship of the watershed

Assessing Need

Use subwatershed assessments to prioritize need for restoration.

Possible criteria:

- Percent impervious cover
- Channel conditions (from USA fieldwork)
- Subwatershed monitoring

Restoration Prioritization Activity

Identify potential criteria for:

- Environmental benefits
- Community benefits and support
- Project feasibility

Next Steps

1. Review Technical Team feedback and share draft prioritization/ranking factors with the group.
2. Review identified projects based on prioritization factors.

Next Meeting