

# ***Little Lick Creek Watershed Plan***

Technical Team Meeting 6  
Wednesday, October 5, 2005

# *Agenda*

2:00 Welcome & announcements

2:15 Prioritizing Restoration Projects\*

3:00 Break

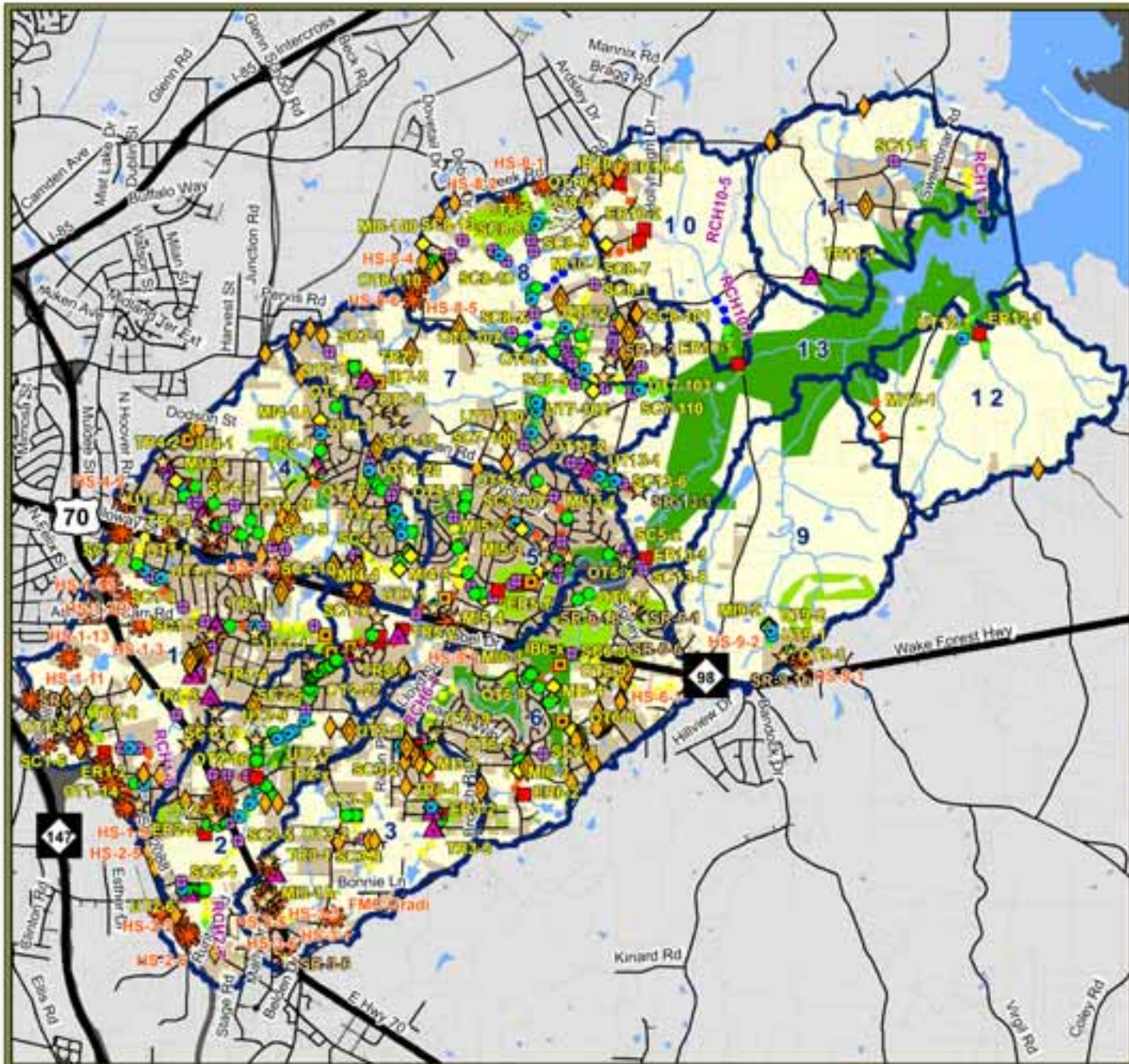
3:30 Subwatershed Restoration Needs\*

4:00 Adjourn

\* Decision Item

# *Prioritizing Restoration Projects*

# 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**  
● ● ● ● ● ● ●  
 Not Scored   Poor   Fair   Good   Excellent  
**Parcel Land Use Category**  
■ Water  
■ Protected Natural Area  
■ Urban Green Space  
■ F-Value Computable Areas  
■ Existing Developed Areas  
■ Road Right-of-Way  
■ Outside of Watershed  
⬮ Major Subwatershed Boundary  
⬮ Parcels  
⬮ Major Roads  
⬮ Streets

N  
 W    E  
 S

Upper Neuse River Basin Association  
 Triangle J Council of Governments  
 Geographic Information Systems  
 6/14/2005

0    0.5    1 Miles

# *Restoration*

1. Stream repair
2. Buffer Restoration
3. Stormwater Retrofits
4. Homeowner education
5. Inspection and enforcement
6. Maintenance
7. Trash clean-up
8. Hotspots

Do not rank project types 4-8. Give the list to Durham Stormwater Services and to Durham County. Ask them which projects/sites are in their jurisdiction. They would need the Tables from the Tech Memos and the GIS layer with locations.

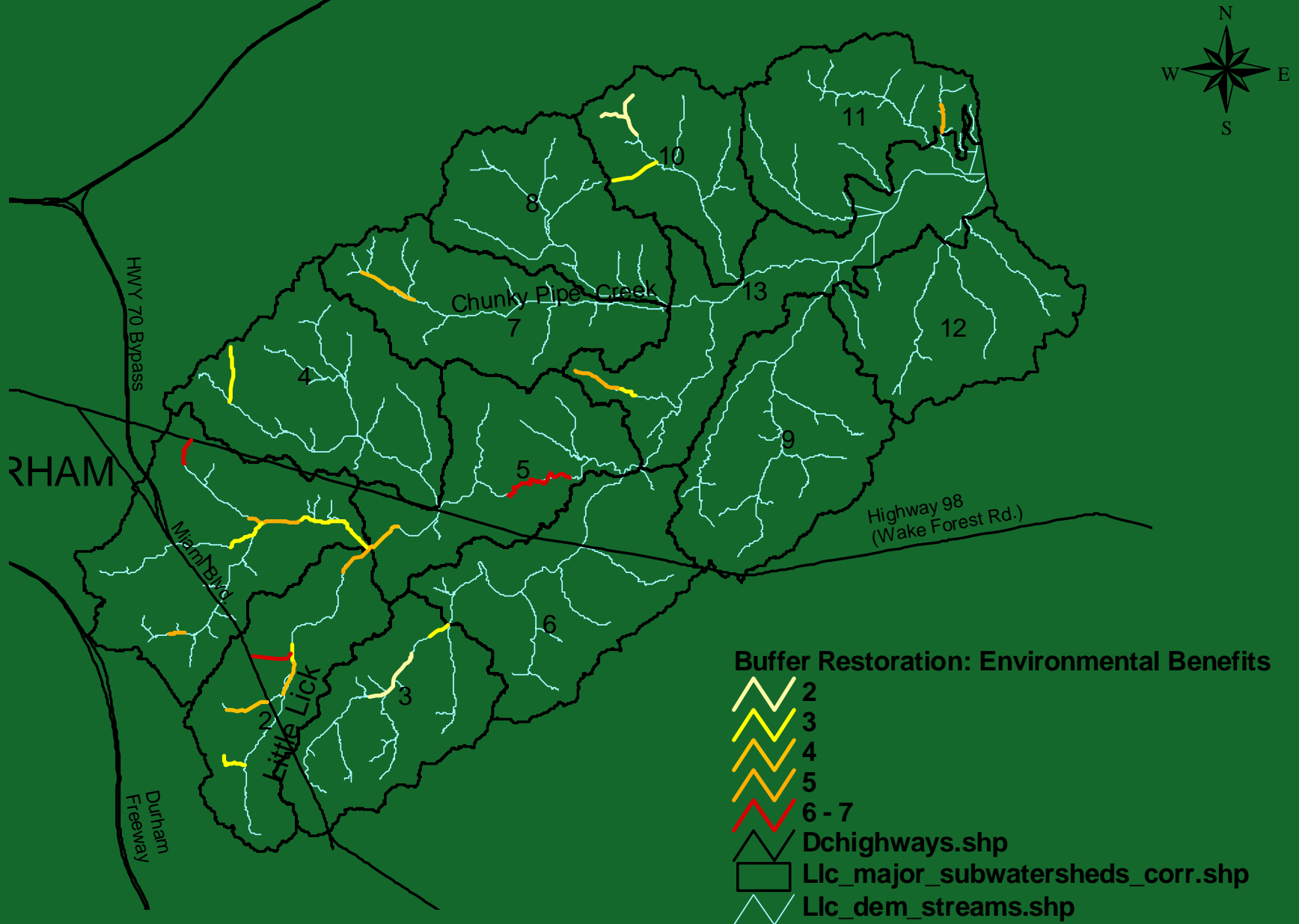
# *Restoration Prioritization*

In August: LLC Tech Team decided on general approach and relative weightings

- Stream restoration
- Buffer restoration
- Stormwater retrofits

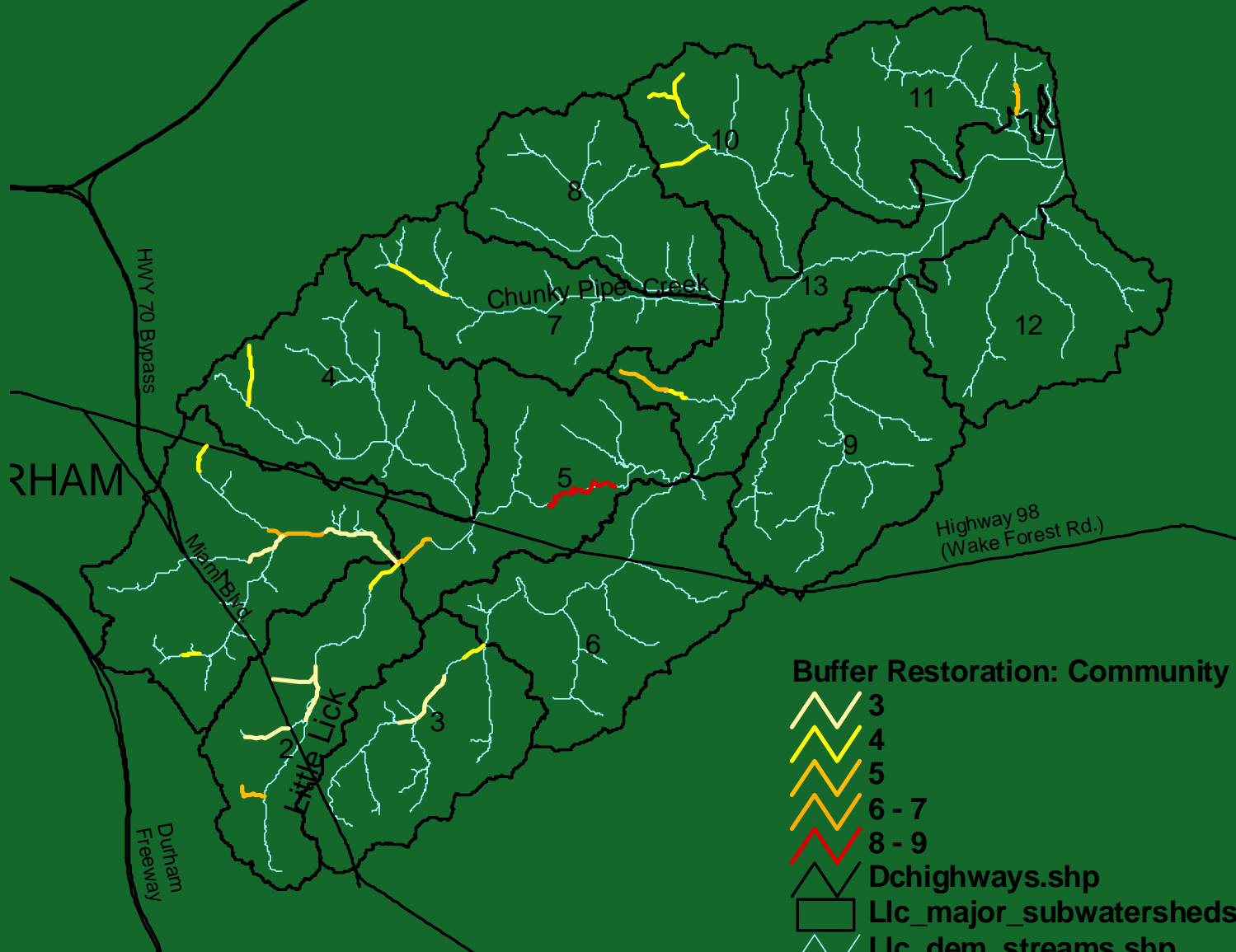
# *Buffer Restoration Priorities*

# Buffers: Environmental Benefits








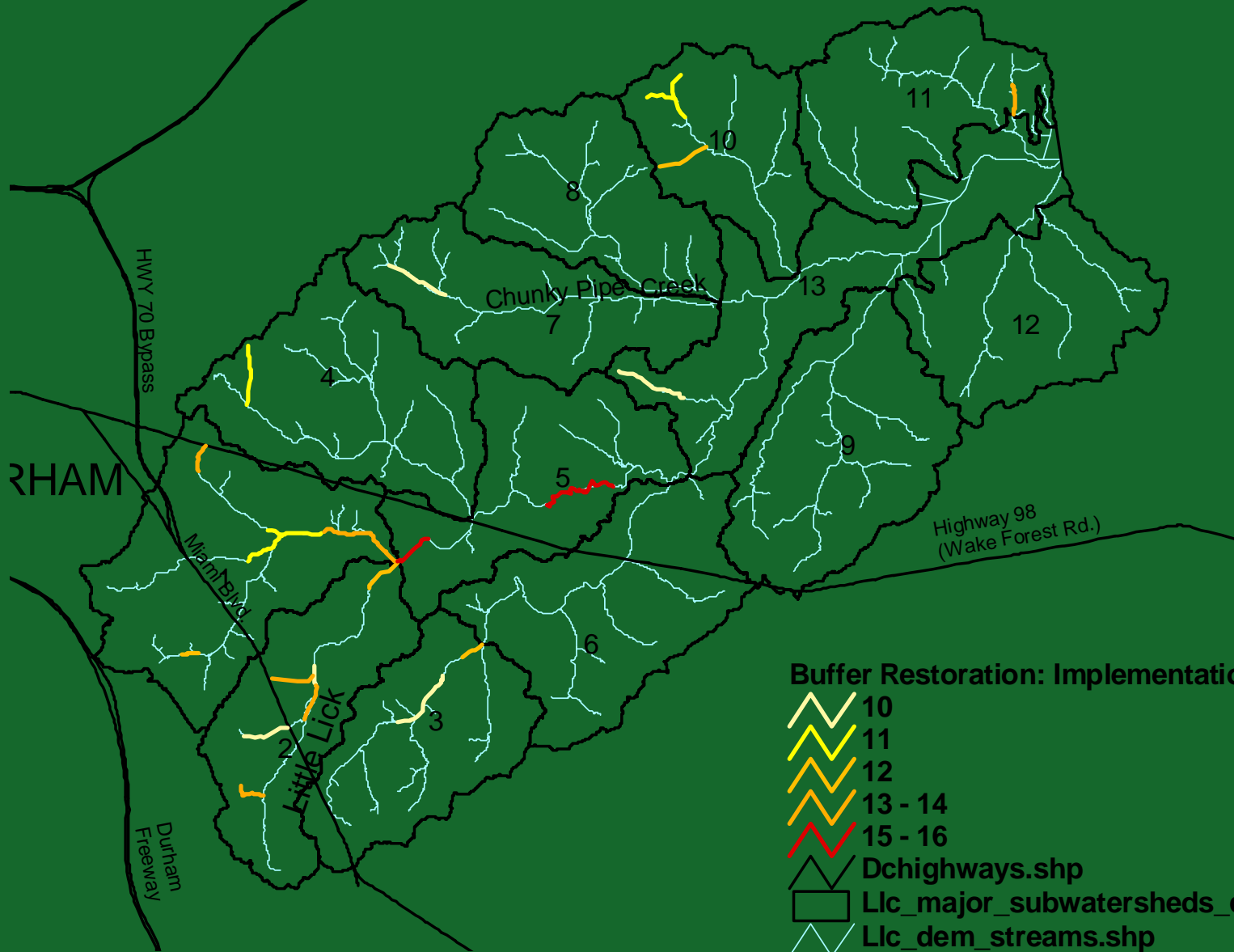
# Buffers: Community Support



**Buffer Restoration: Community Support**

-  3
-  4
-  5
-  6 - 7
-  8 - 9
-  Dchighways.shp
-  Llc\_major\_subwatersheds\_corr.shp
-  Llc\_dem\_streams.shp

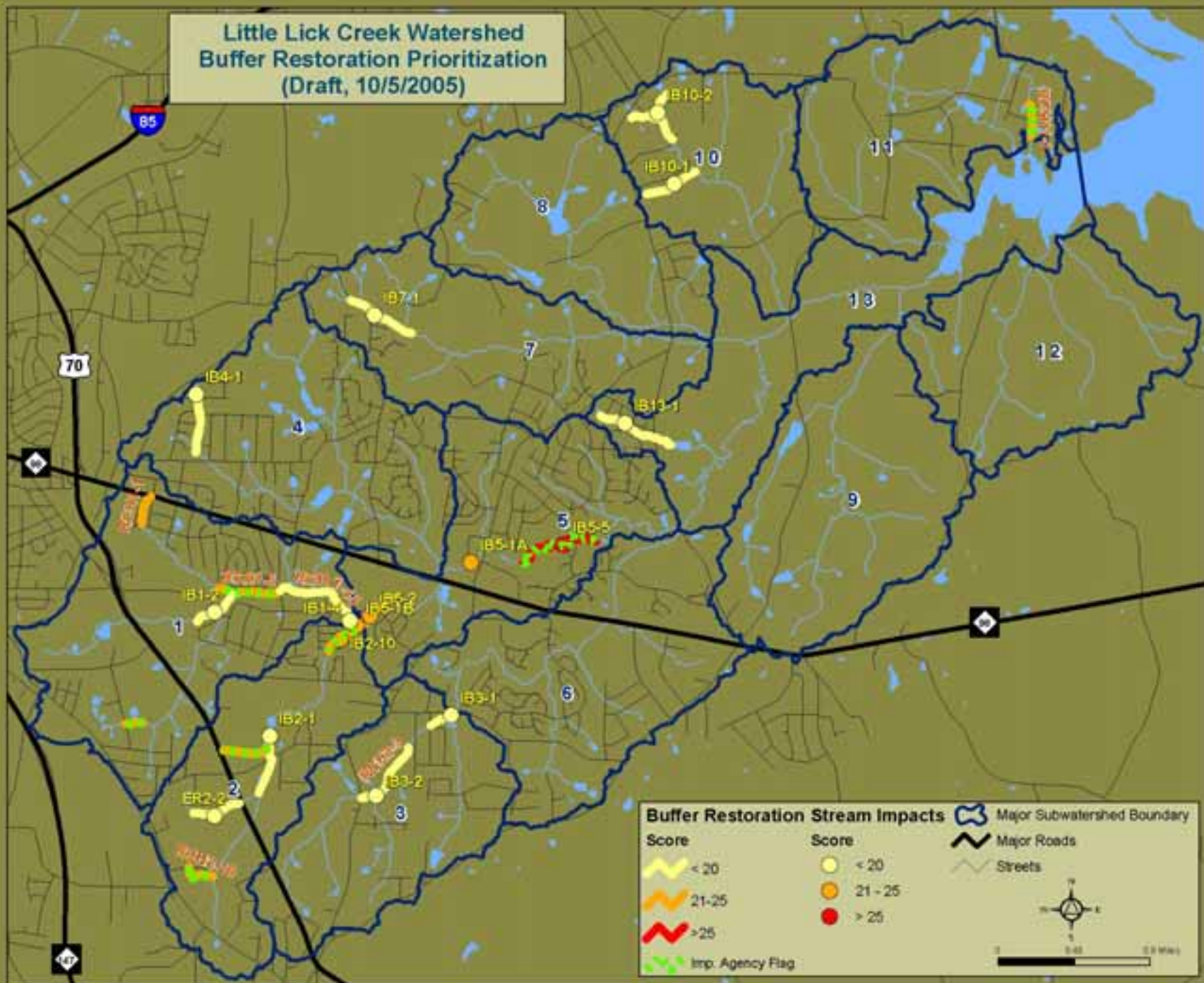
# Buffers: Feasibility



## Buffer Restoration: Implementation Feasibility

- 10
- 11
- 12
- 13 - 14
- 15 - 16
- Dchighways.shp
- Llc\_major\_subwatersheds\_corr.shp
- Llc\_dem\_streams.shp

**Little Lick Creek Watershed  
Buffer Restoration Prioritization  
(Draft, 10/5/2005)**

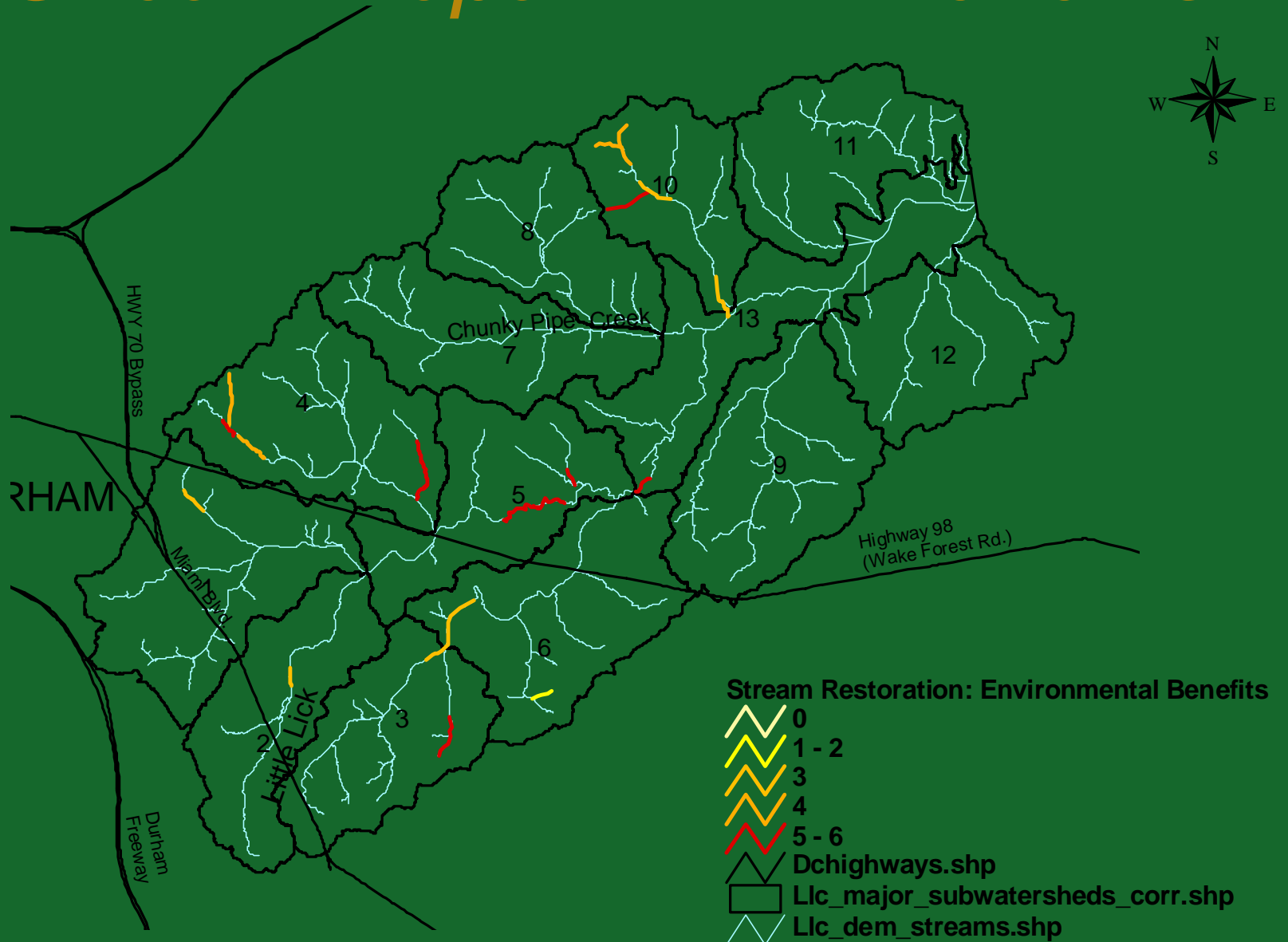


**Buffer Restoration Stream Impacts**

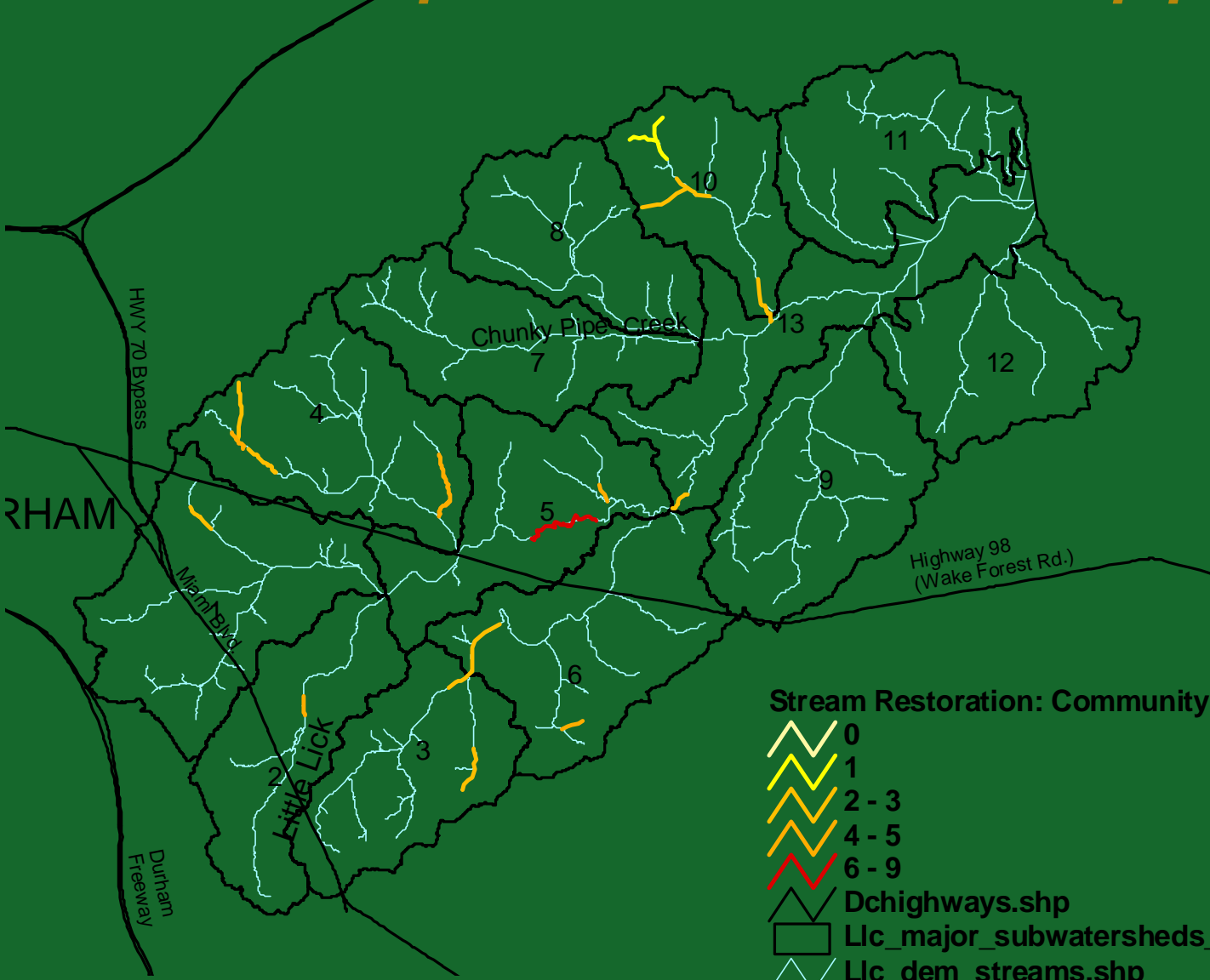
<b>Score</b>	<b>Score</b>	Major Subwatershed Boundary
< 20	< 20	Major Roads
21-25	21 - 25	Streets
> 25	> 25	
Imp. Agency Flag		

# *Stream Repair Priorities*

# Stream Repair: Env. Benefits



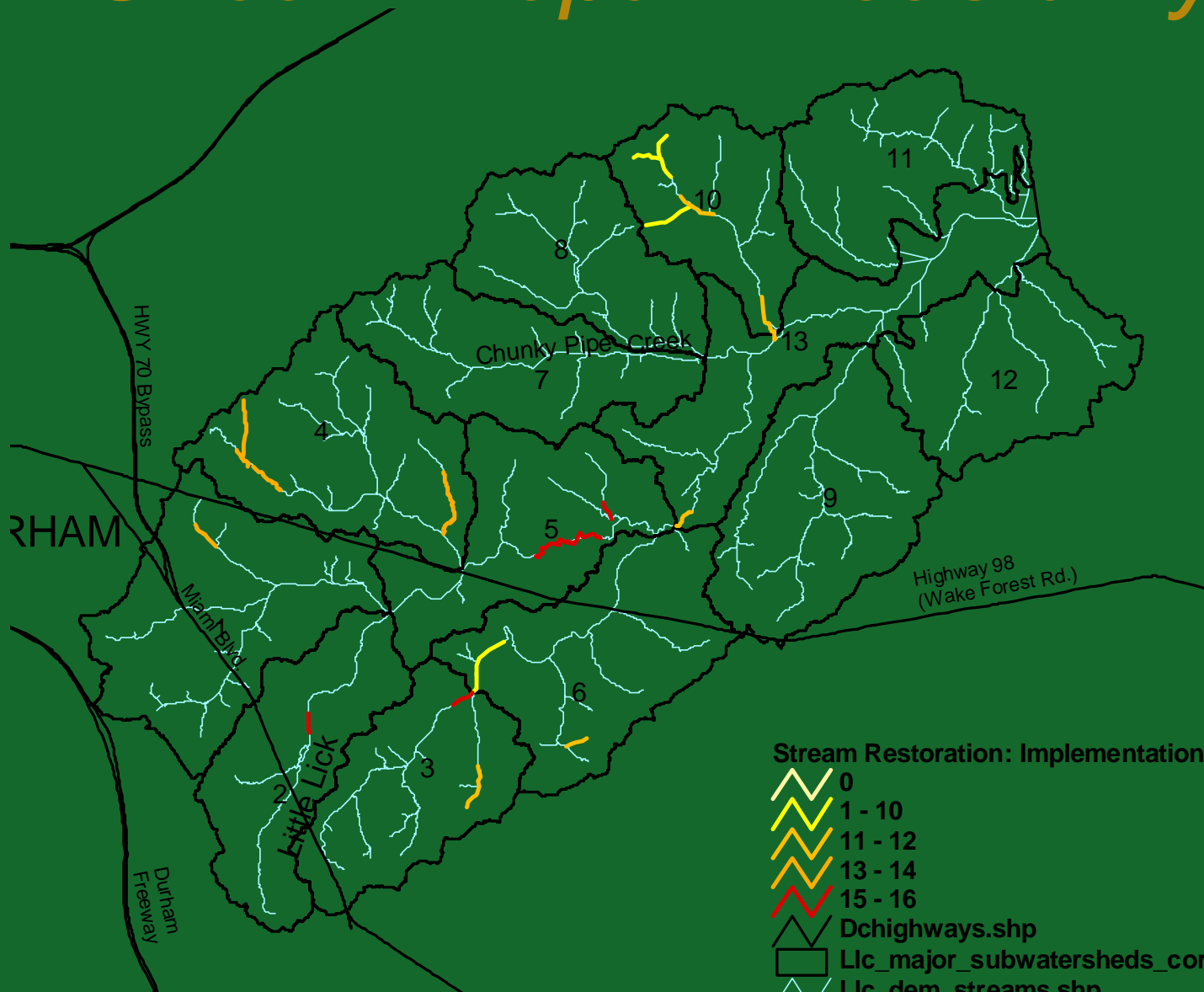
# Stream Repair: Comm. Support



### Stream Restoration: Community Support

- 0
- 1
- 2 - 3
- 4 - 5
- 6 - 9
- Dchighways.shp
- Llc\_major\_subwatersheds\_corr.shp
- Llc\_dem\_streams.shp

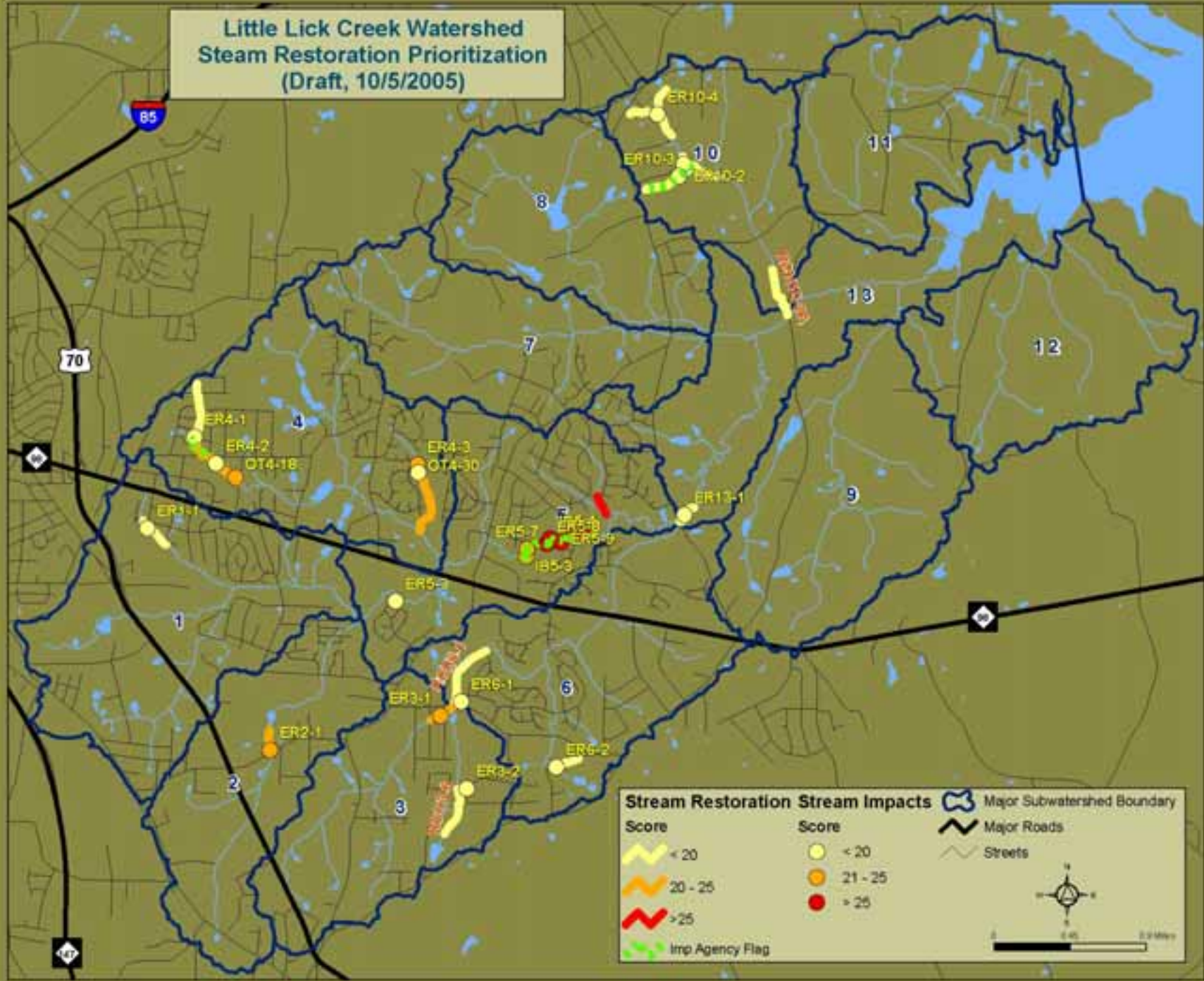
# Stream Repair: Feasibility



## Stream Restoration: Implementation Feasibility

- 0
- 1 - 10
- 11 - 12
- 13 - 14
- 15 - 16
- D
- Dchighways.shp
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Little Lick Creek Watershed  
 Stream Restoration Prioritization  
 (Draft, 10/5/2005)





# *Buffer Restoration Priorities*

Example: Reach 10B

# *Environmental Benefits*



- Length
- Reconnection
- Addresses significant impact
- Falls Lake

# Community Benefits



- Aesthetics
- Long-term public involvement
- Educates (is visible)
- Involves citizens in implementation

# Community Benefits



- Cost per linear foot
- Access
- Ownership
- Maintenance burden
- Long-term viability
- Implementing Agency Criteria

## *Reach 10B Summary*

Final buffer score: 31 points (highest priority)

Flag for meeting EEP criteria

Multiple projects: buffer restoration, stream restoration, stormwater retrofits

# Reach 10B Scoring Runs

Reach Number	Project Number	Prioritization Run #	Habitat & WQ: length	Habitat & WQ: reconnects	Habitat & WQ: addresses significant impact	Falls Lake	Environmental Benefits Score	Aesthetics	Steward-ship: long-term pub. inv.	Stewardship: educates	Steward-ship: involves citizens in implementation	Community Support Score	Cost per foot (or area)	Access	Ownership	Maintenance Burden	Long-term viability	Imp. Agency	Feasibility Score	Total Score
RCH5-10B	IB5-5	Run 1	1	2	2	1	<b>6</b>	4	2	2	1	<b>9</b>	4	4	3	3	2	Flag	<b>16</b>	<b>31</b>
RCH5-10B	IB5-5	Run 2	1	2	2	1	<b>6</b>	2	1	1	0	<b>4</b>	2	2	1	2	0	Flag	<b>7</b>	<b>17</b>

## Run 1:

Over 50% of score is from Implementation Feasibility Criteria

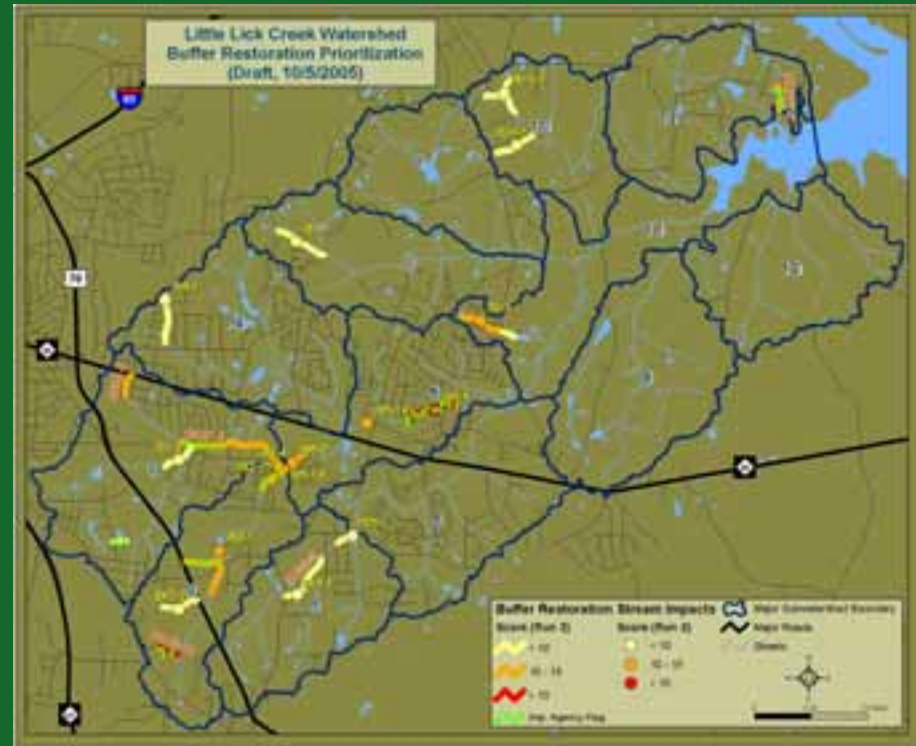
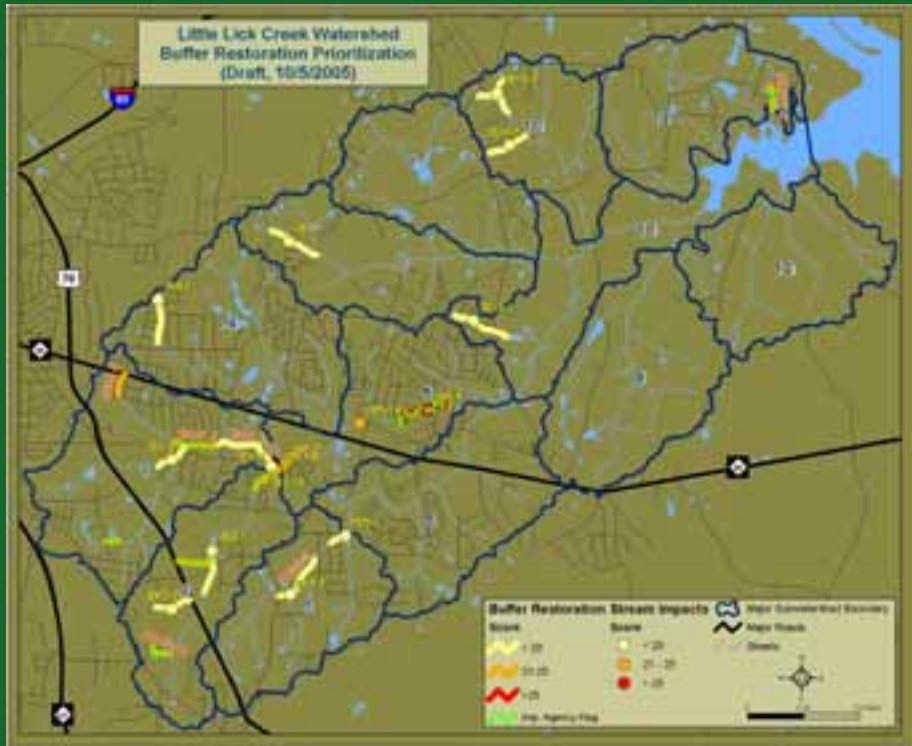
Environmental criteria are lowest proportion of total score

## Run 2:

Over 1/3 of score is environmental and 1/3 is implementation feasibility

# Run 1

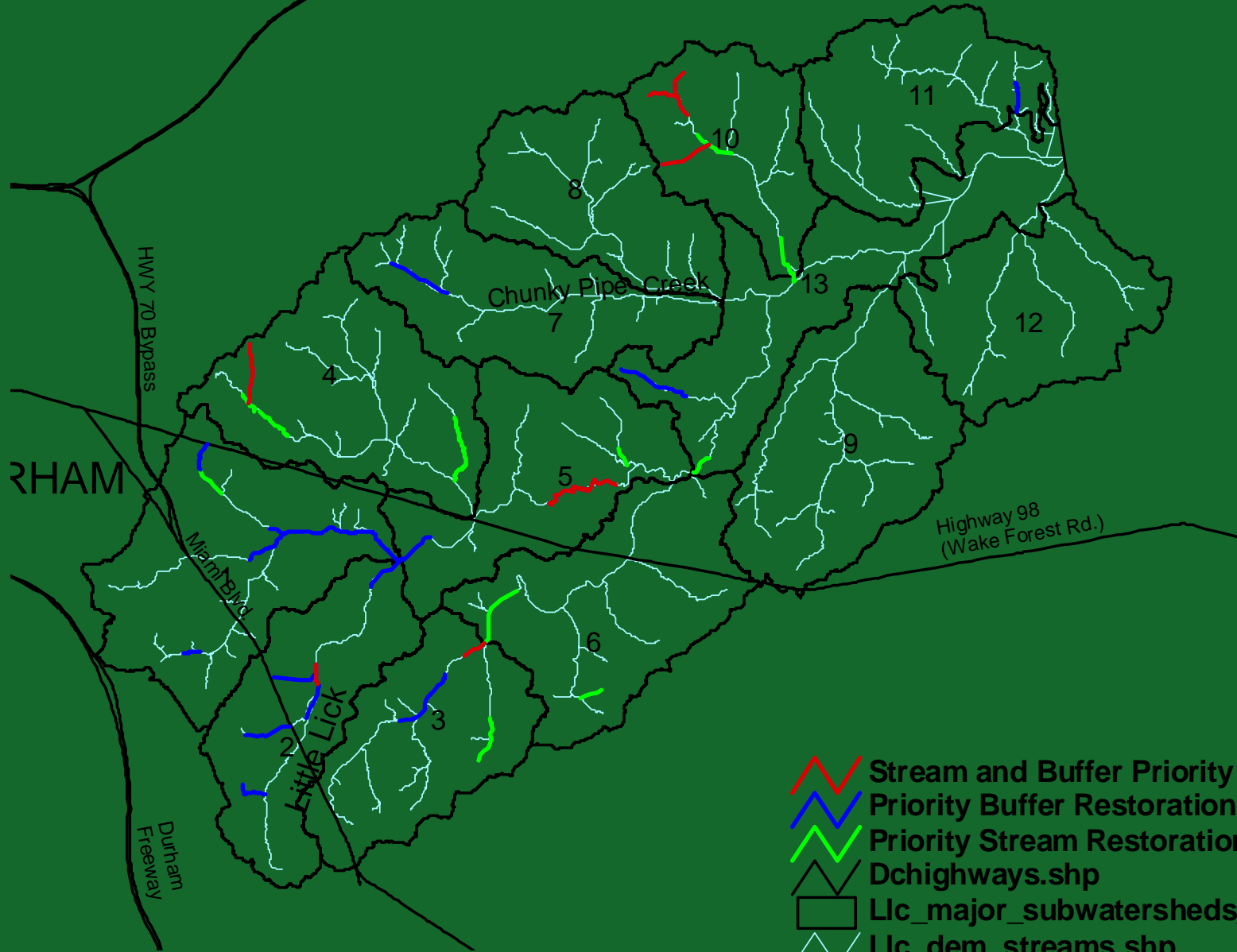
# Run 2









# *Combining Restoration Priorities*

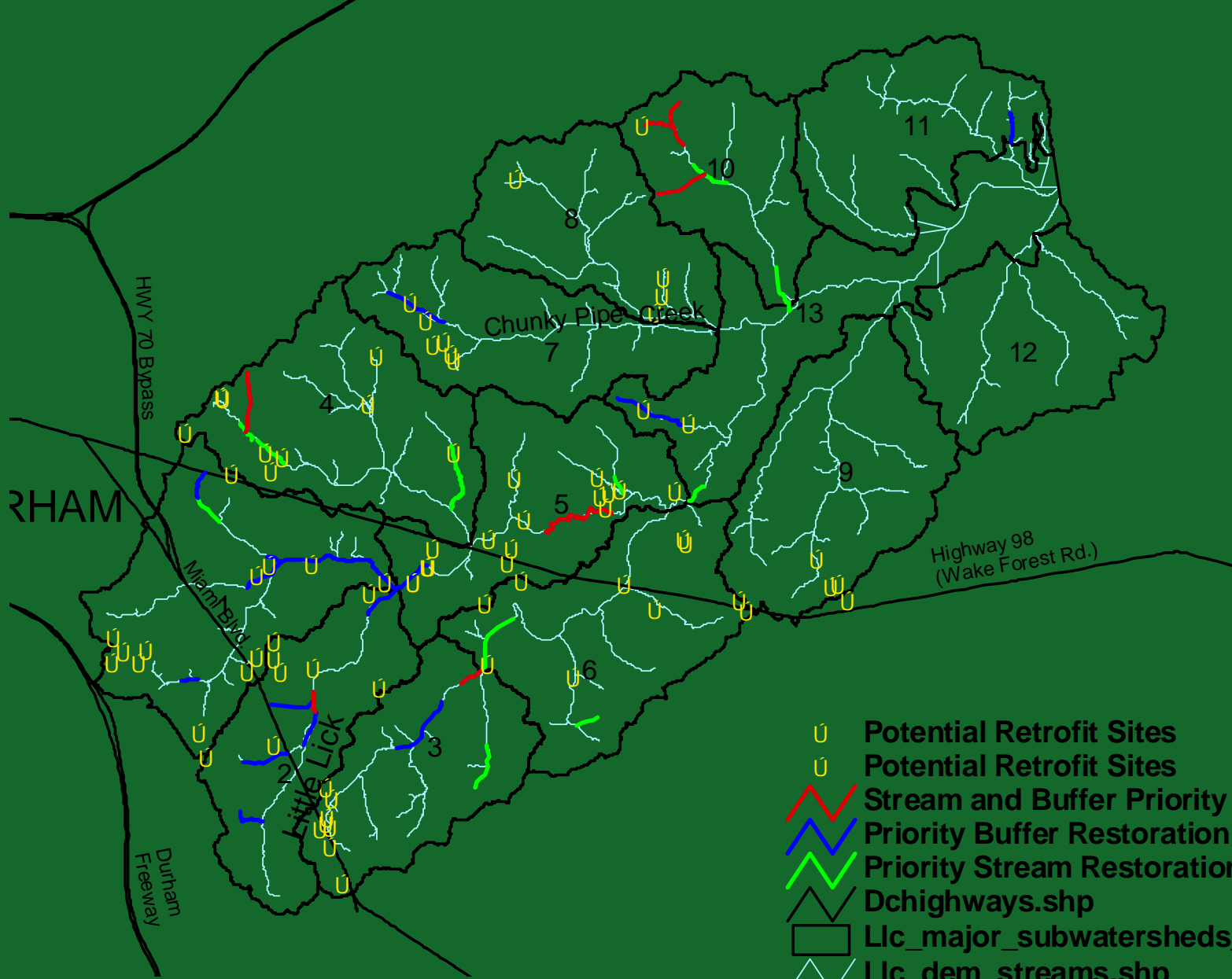


# Stream & Buffer Priorities



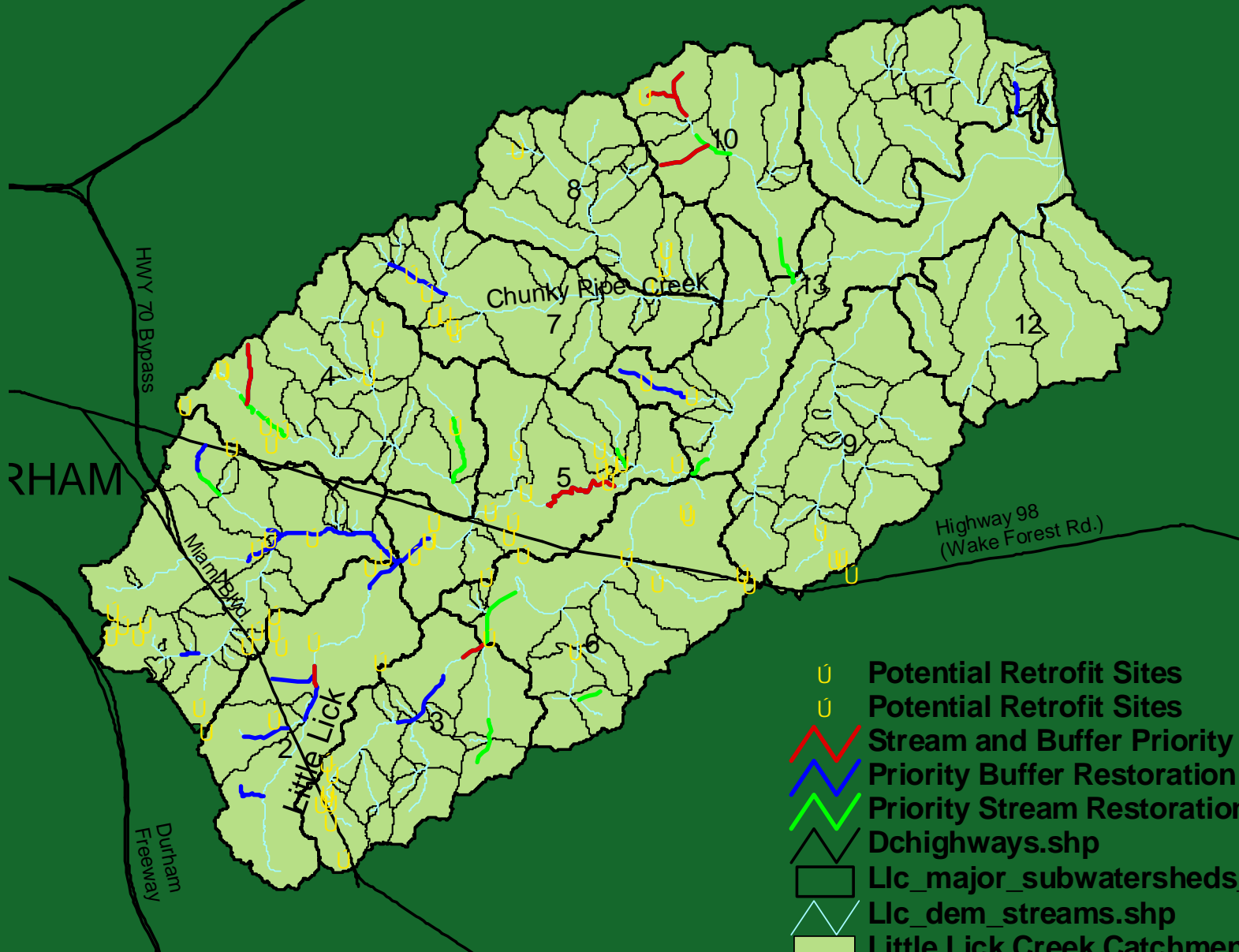
-  Stream and Buffer Priority
-  Priority Buffer Restoration Projects
-  Priority Stream Restoration Projects
-  Dhighways.shp
-  Llc\_major\_subwatersheds\_corr.shp
-  Llc\_dem\_streams.shp

# All Restoration Priorities



- U Potential Retrofit Sites
- U Potential Retrofit Sites
- Stream and Buffer Priority
- Priority Buffer Restoration Projects
- Priority Stream Restoration Projects
- Dhighways.shp
- Llc\_major\_subwatersheds\_corr.shp
- Llc\_dem\_streams.shp

# Priorities by Catchment



RHAM

- U Potential Retrofit Sites
- U Potential Retrofit Sites
- Stream and Buffer Priority
- Priority Buffer Restoration Projects
- Priority Stream Restoration Projects
- Dhighways.shp
- Llc\_major\_subwatersheds\_corr.shp
- Llc\_dem\_streams.shp
- Little Lick Creek Catchments

# *Next Steps*

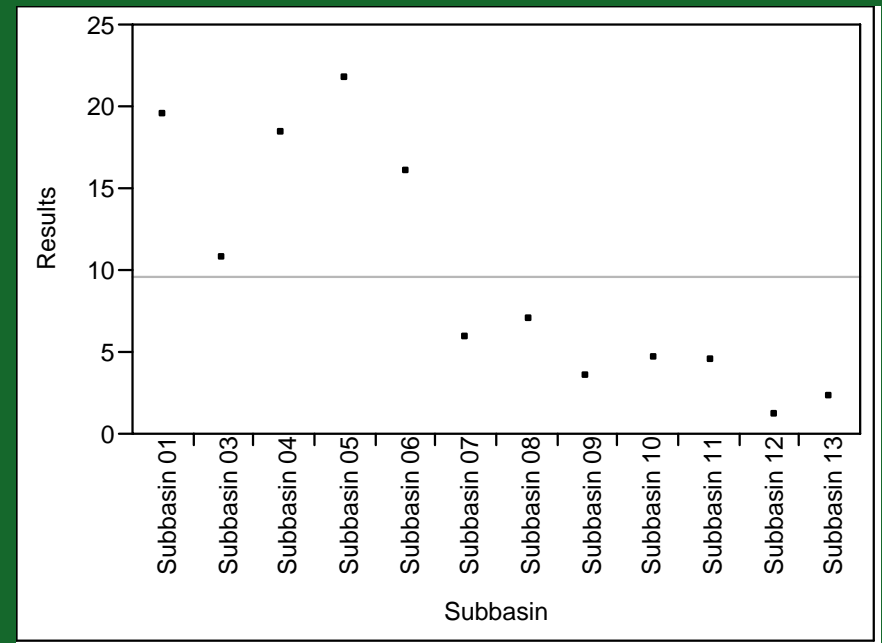
1. Prioritize stormwater retrofits
2. Finalize prioritization of projects and revise technical memo #3

*BREAK*

***Little Lick Creek  
Subwatershed Assessment***

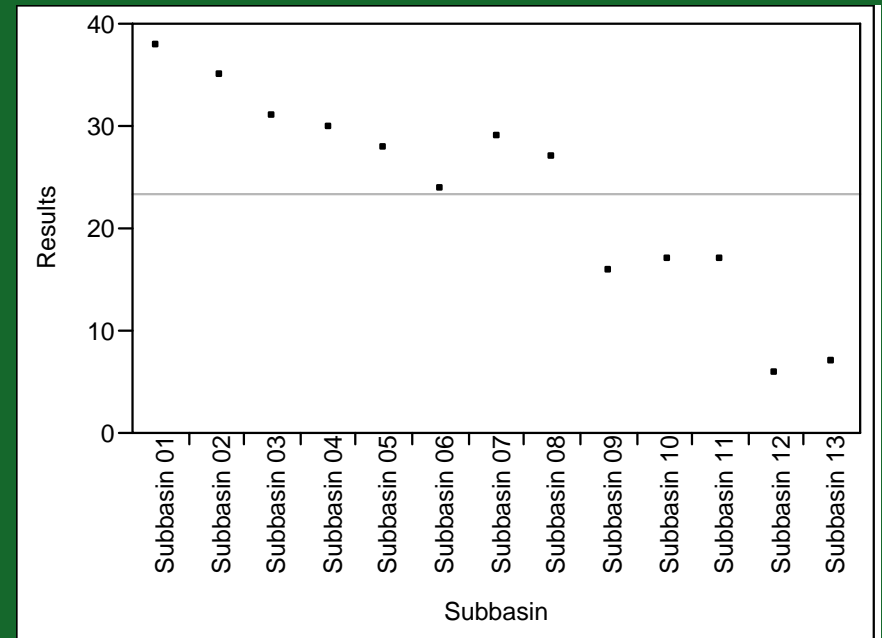
## Current Impervious cover (%)

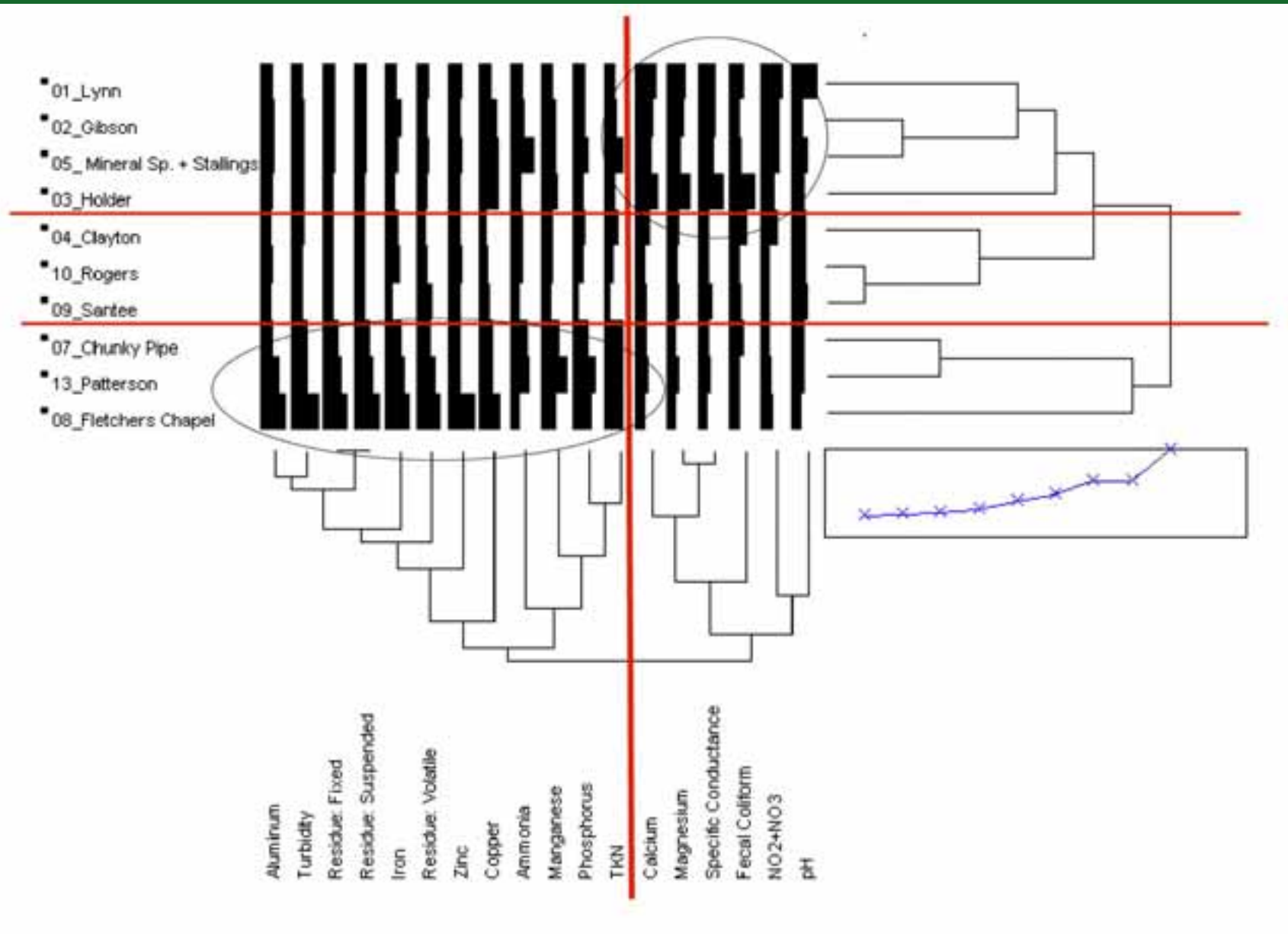
By Subwatershed



## Buildout Impervious cover (%)

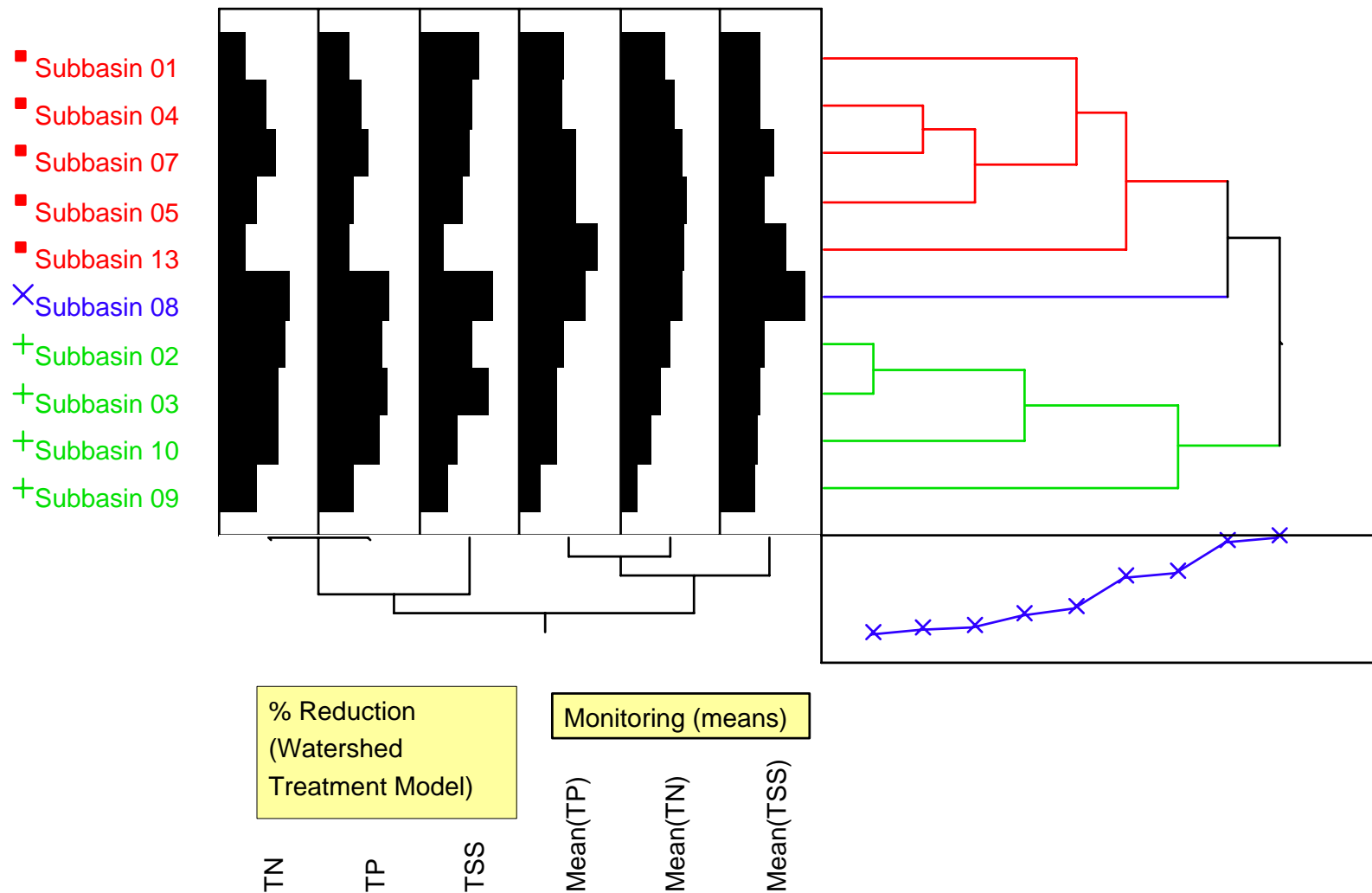
By Subwatershed





Cluster analysis showing two groups of sites (Upper right corner, lower left corner) that had high values for the parameters shown on the bottom of the graph.





A cluster analyses of the Watershed Treatment Model results for TN, TP, TSS and the mean concentrations of (Mean TP, Mean TN, and Mean TSS) from water quality monitoring.

# *Next Steps*

Subwatershed Assessment Committee to help determine subwatershed need for management, such as:

- Restoration
- Stormwater Retrofit
- Land Protection
- Local Ordinance Changes

# Next Meeting

Wednesday, November 2 at Rollingview  
Community Center