

Lick Creek Watershed Restoration Plan

Stakeholder Meeting 4

June 20, 2007

Rollingview Community Center

Agenda

3:00 Welcome and Introductions

3:05 Announcements

3:15 Lick Creek watershed management objectives*

3:30 Lick Creek fieldwork findings review

4:15 Prioritizing restoration needs (discussion)

5:00 Adjourn

* Decision Item

*Next meeting:
August 15, 3:00 – 5:00
East Durham Regional Branch
Library*

*Review Land Use Analysis and Watershed Treatment Model
Establish project prioritization criteria*

Announcements

*Lick Creek Watershed
Management Objectives*

Terminology

Goal: General statement of purpose or intent

Objective: Precise statement of what needs to be done (measurable by indicators)

Strategies: Specific statements (how, who, by when, using what resources) of how to achieve the objective.

Objectives development process

GOAL 2: Identify pollutants and their sources that may be impairing aquatic habitat and water quality in Lick Creek

Do monitoring data and/or field work show water quality impairment in a subwatershed (water quality standards or professional judgment of Partners)?

Yes

No

Is further monitoring needed to identify sources in (for example) subwatershed Y?

Specific pollutant not impairing. Does pollutant contribute to biologic impairment?

Yes

No

Yes

No

Objective: Monitor levels of pollutant in subwatershed Y.

Objective: Source X is suspected to be causing impairment in subwatershed Y.

Move to GOAL 1: Determine the causes of biological impairment in LC and recommend strategies that address the causes of impairment

No further recommendation for this pollutant in this location.

Move to GOAL 3: Develop strategies for reducing, and maintaining at levels meeting water quality standards, the pollutant identified in Goal 2.

*Do we agree on this general
approach?*

*Lick Creek Fieldwork Findings
Review*

Summary: Overall Conditions

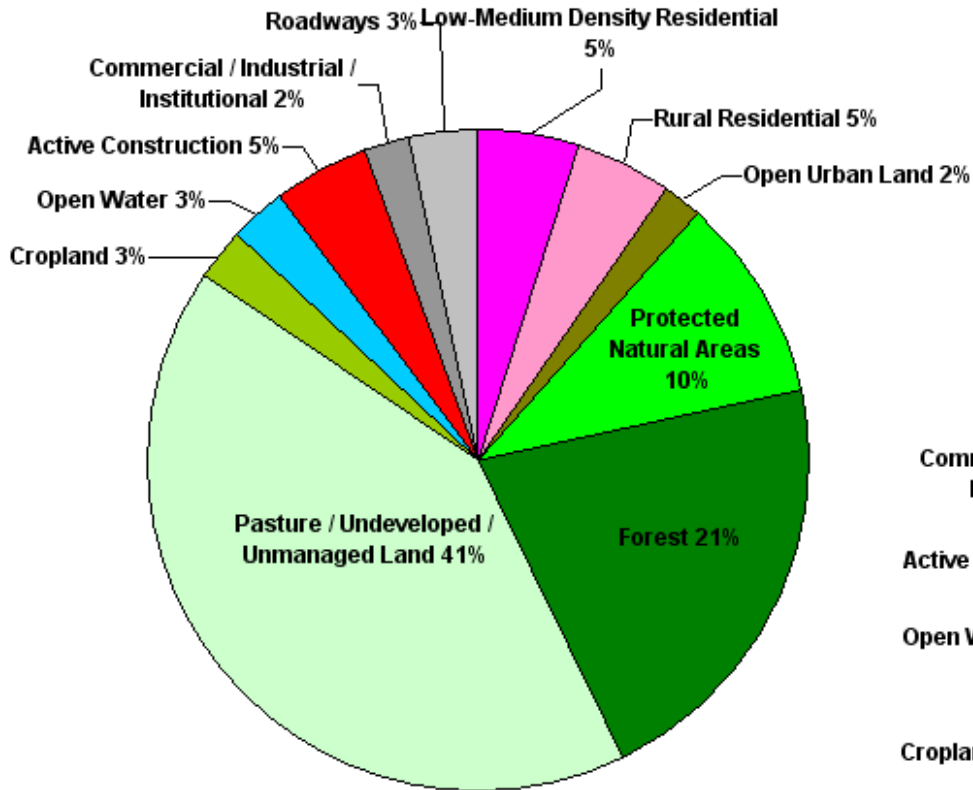
- Many Lick Creek tributaries are in good shape from a geomorphic perspective.
- Optimal-condition reaches (5) were in Laurel Creek (subsheds 8 and 10)
- 49 reaches were sub-optimal, 23 marginal
- Only 1 poor reach found (Kingsmill Dairy)
- Though this stream is biologically impaired, the impairment may be attributed to sparse in-stream habitat created by the geology and historic impacts.



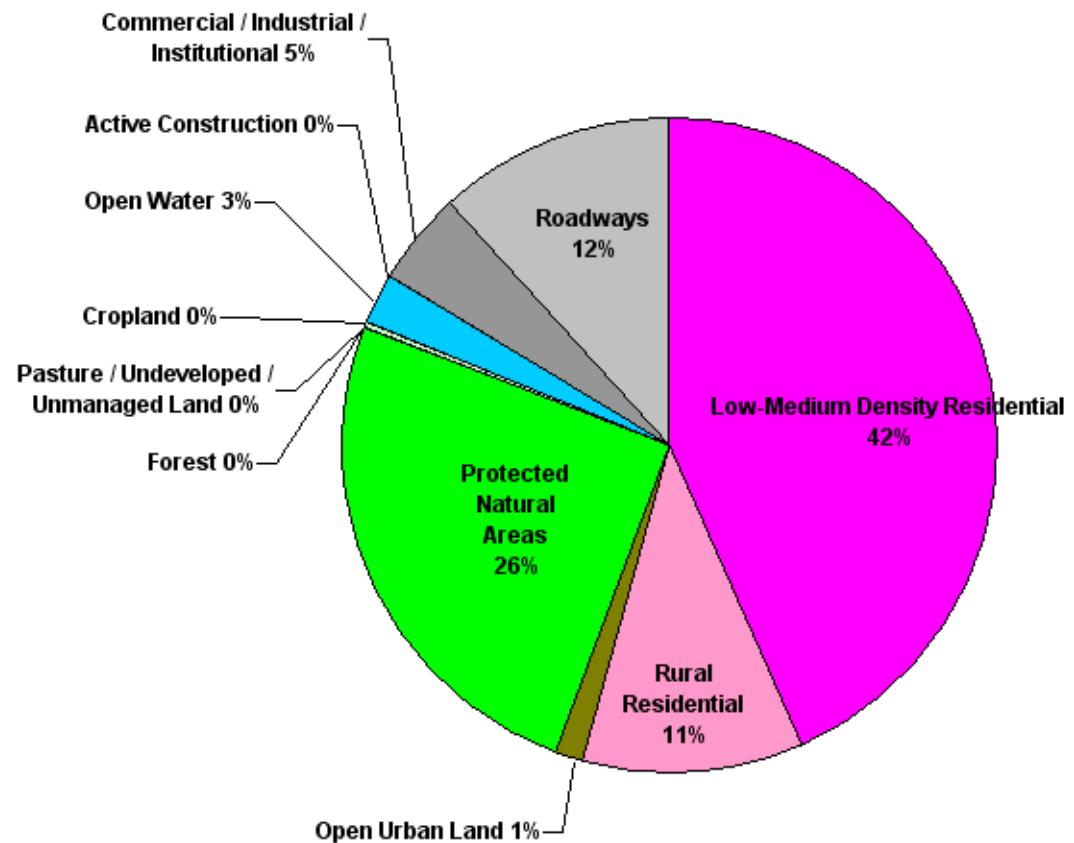
Summary: Overall Conditions

- Few potential restoration opportunities were found.
- New impacts from ongoing construction activities are impacting existing good quality streams and wetlands.
- The focus of the Lick Creek Restoration Plan should therefore be to prevent future impacts and to preserve high quality areas.
- A few restoration activities should complement the overall “prevention” strategy.

Existing Land Use



Future Land Use



Follow-up (August and October meetings)...

Land Use Analysis and Watershed Treatment Model (August meeting)

Water quality and aquatic biology monitoring (October meeting)

Specific findings and recommendations

1. Inadequate erosion and sediment control at construction sites



2. Uncontrolled sediment discharges from agriculture sites



3. Water quality requirement for post-construction stormwater management



4. Impacts from infrastructure crossing the stream corridor



5. Buffer and floodplain encroachment



6. Protection of high quality streams and wetlands



7. Delineation of streams and wetlands

8. Major restoration projects





9. Volunteer Restoration Projects



11. Suspicious septic discharges



11. Outreach and Education



11. Municipal infrastructure repairs



Conclusion

Restoration opportunities are limited

More urbanized subwatersheds (1-3) have the greatest concentration of potential projects

Addressing several problems will require partnership and NC DWQ support.

Upcoming analyses will add vital information to fieldwork.

Discussion:
Prioritizing Restoration Needs

“Watershed Restoration”

- Stream repair
- Buffer restoration
- Stormwater retrofits
- Improving existing practices through outreach and education

Why prioritize?

- Resources limited
- Restoration expensive

Restoration project criteria

1. Need for project (monitoring or fieldwork indicates degradation at subwatershed level)
2. Project's environmental benefits
3. Project's community benefits / support
4. Project's implementation feasibility

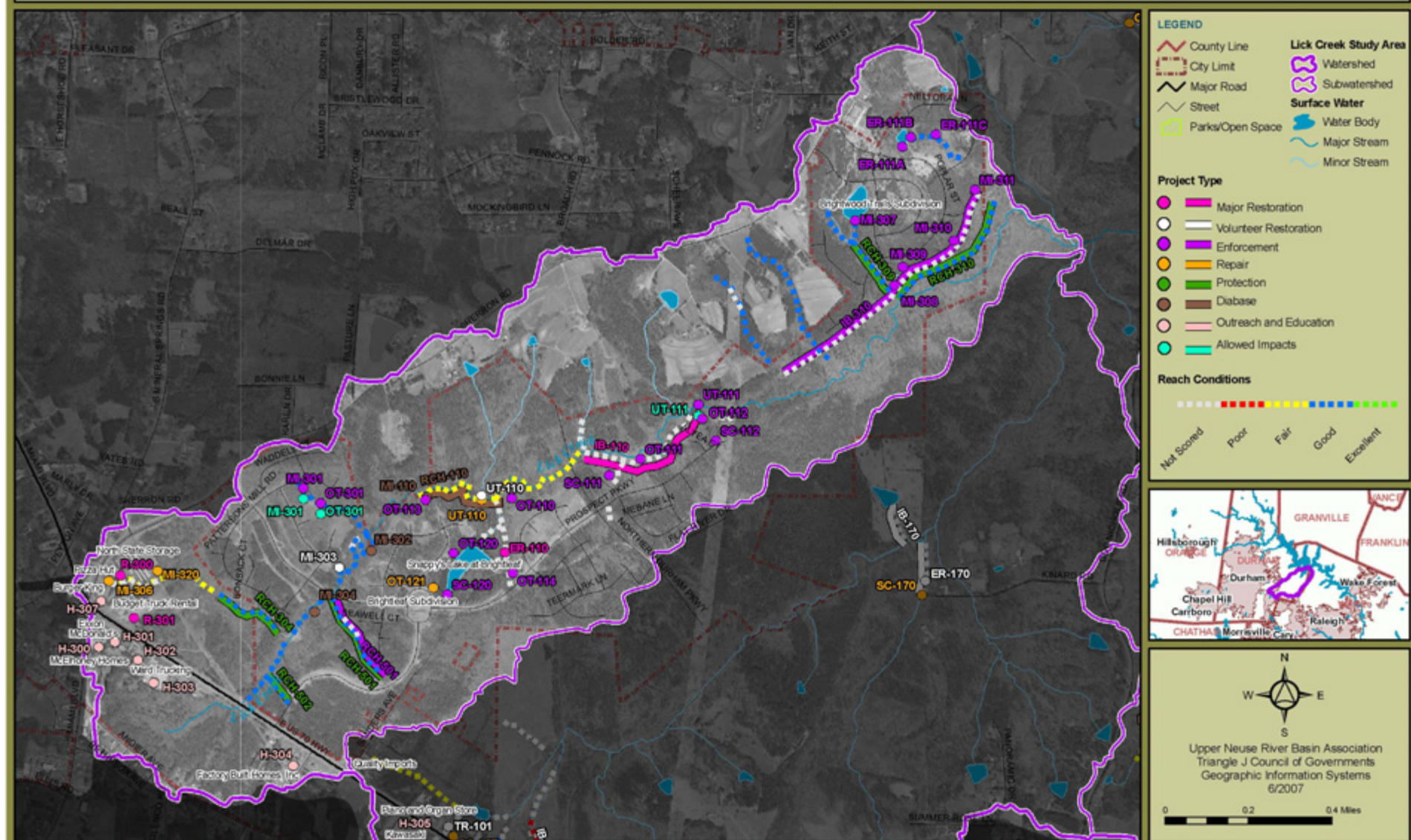
1. Need for Project

Subwatershed is “management unit” to
prioritize:

1. Existing water quality problems (some subwatersheds are not in need of restoration)
2. Expected future impacts

Subwatershed as “management unit”

Lick Creek Stream Conditions & Impacts: Subwatershed 1



2. Environmental Criteria

Potential criteria (watershed functions):

1. Water quality benefits
2. Aquatic biology benefits
3. Benefits to Falls Lake (nutrient reduction)

3. Community Benefits / Support

Potential criteria:

1. Aesthetics

2. Stewardship

- long term public involvement,
- citizen education,
- implemented by citizens

4. Implementation Feasibility

Potential criteria:

1. Cost

2. Access

3. Ownership

4. Maintenance burden

5. Long-term physical viability

6. Implementing agency

Next Steps

- Project partners recommend criteria and relative importance of criteria
- Stakeholders discuss and agree upon criteria at August meeting
- Do any stakeholders have interest in working with partners to determine criteria?

Adjourn