Little Lick Creek Watershed Plan

Technical Team Meeting 2

Thursday, March 17, 2005

Agenda

2:00 Welcome & introductions
2:15 Progress updates
2:30 Subwatershed characterization (continued)*
2:40 Build-out land use scenario*

5-minute break

3:00 USA Fieldwork results
4:00 Adjourn

* Decision Item

Progress Updates

1. Involve Stakeholder Group
2. Analyze Existing Data
3. Identify Project Area
4. Set Goals
5. Subwatershed Assessment
6. Stream Monitoring
7. Fieldwork
8. Initial Findings
9. Recommend Management Strategies
10. Implement Highly Ranked Management Strategies

Progress Update: Subwatershed Assessment

For each subwatershed:

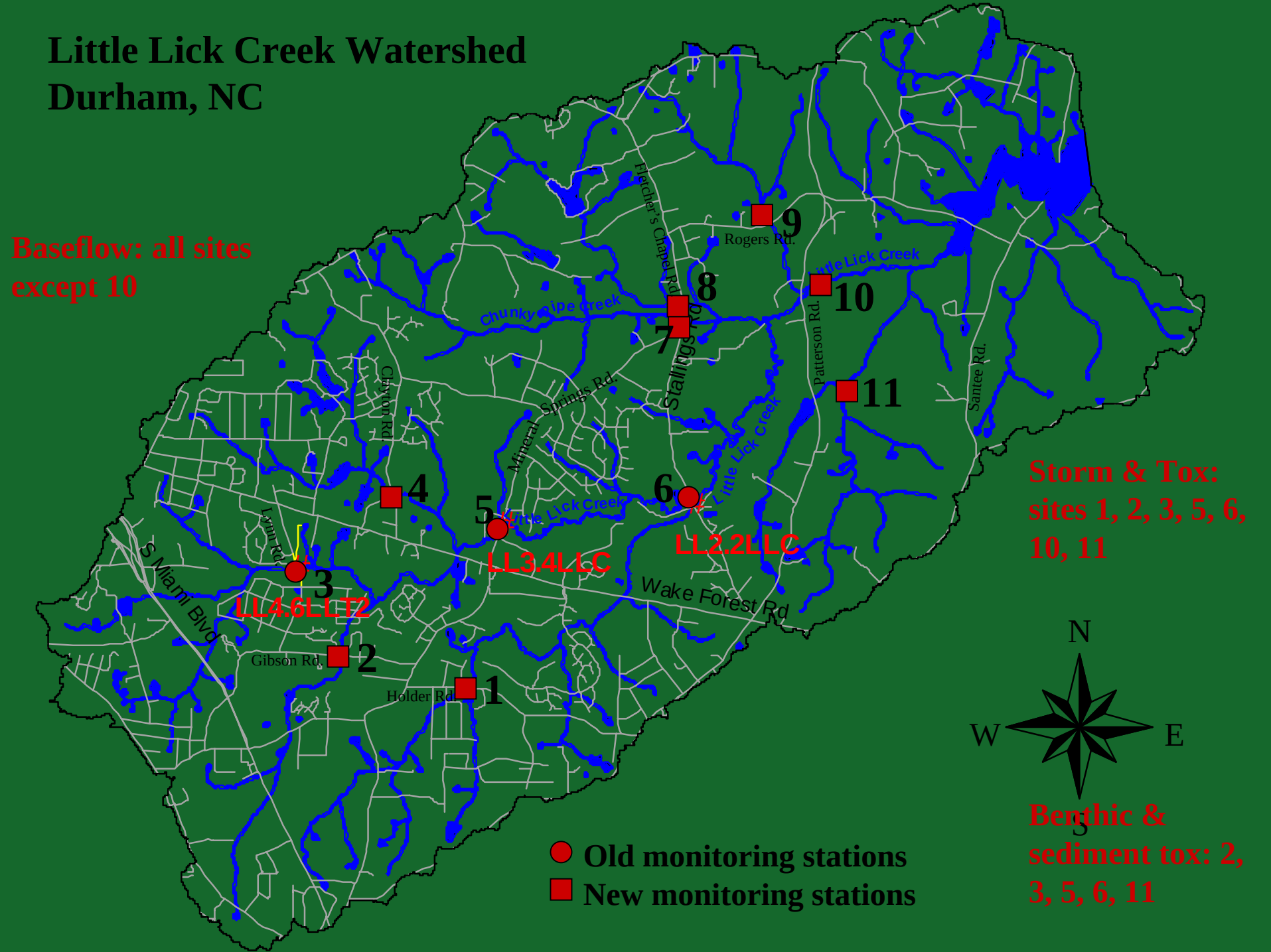
1) Model current land use and practices

2) Model build-out land use scenario

Progress Update: Stream Monitoring

1) Review existing data

2) Conduct project-specific monitoring


Little Lick Creek Watershed
Durham, NC
Baseflow: all sites except 10
Storm & Tox: sites 1, 2, 3, 5, 6, 10, 11
Benthic & sediment tox: 2, 3, 5, 6, 11
Old monitoring stations
New monitoring stations
LL4.6LLT2
LL3.4LLC
LL2.2LLC
1
2
3
4
5
6
7
8
9
10
11
Rogers Rd.
Fletcher's Chapel Rd.
Stallings Rd.
Chunkypipe Creek
Little Lick Creek
Patterson Rd.
Santee Rd.
Clayton Rd.
Mineral Springs Rd.
Lynn Rd.
S Miami Blvd
Wake Forest Rd
Gibson Rd.
Holder Rd.
N
W
E
S

Progress Update: Fieldwork

Subwatershed data:

1) Stream Assessment—Jan. 24-28

2) Upland Sites Reconnaissance—March 14-18

Subwatershed Characterization

Last Meeting:

Initial characterization exercise

Today:

Review exercise results and refine

Summary of current land uses

- Developed land—34%
- Potentially developable land—51%
- Protected natural areas & greenspace—13%

Subwatershed Characterization

See map

Developed land by subwatershed:

High level (over 49% built and 15% TIA)

SWs 1, 2, 4, 5, and 6

Moderate level (23% to 41% built)

SWs 3, 7, 8, and 11

Low level (Less than 15% built and 5% TIA)

SWs 9, 10, 12, and 13

Potentially developable land by subwatershed:

High level (71% to 85%)

SWs 7, 8, 9, 10, 11, 12

Moderate level (30% to 57%)

SWs 1, 2, 3, 4, 6

Low level (17% to 27%)

SWs 5 and 13

Protected land by subwatershed:

High level (53%)

SW 13

Moderate level (9% to 12%)

SWs 6, 11, and 12

Low level (7% or less)

SWs 1, 2, 3, 4, 5, 7, 8, 9, and 10

Build-out Land Uses

Build-out scenario assumes the watershed is fully developed to the extent allowed under current regulations.

Build-out land use scenario

See future land use handout and map

BREAK

Stream Assessment Findings

Stream Assessment Findings

Impact	Sites Surveyed	Impacts Found
Outfalls	113	38
Stream Crossings	89	17
Utility Crossings	39	21
Impacted Buffers		21
Severe Erosion		16
Trash Dumping		16

Key Findings

- **Erosion and sediment control on active construction sites**
- **Sanitary Sewage Discharges from failing onsite septic systems and from damaged sewer laterals**
- **Other illicit discharges including wash water and cooking oil**
- **Trash dumping - trash heaps adjacent to homes and dumping of large items**
- **Impacted buffers with little or no undisturbed vegetation adjacent to the stream.**
- **Post-construction stormwater management and the opportunities for retrofit.**

Erosion and Sediment Control

- Failure to maintain ESC devices
- Relying solely on sediment basin rather than combined approach

Sanitary Sewer Laterals

- PVC laterals and cleanouts above stream inverts

Sewer Overflows and Sewer Maintenance


2005/01/27

Failing Sand Filter

Other Illicit Discharges

Paint

Trash Dumping

- Yard waste and household trash
- Oil filters and automotive trash
- Construction waste and commercial trash

Impacted Buffers

- Sanitary sewer lines running parallel to the stream, with less than 30’ of undisturbed vegetative buffer between the cleared right-of-way and the top of bank.
- Residential developments with maintained lawn to the edge of bank.
- Stream channels converted to roadside ditches with driveway culverts.

Stormwater Management

RCH8-13 Excellent

RCH2-13 Good

RCH10-2A Good

Transition Good to Poor

Good

Poor

RCH4-6 Fair

RCH2-14 Poor

Next Steps

1. Review future impacts analysis (focus on pollutant loading)

2. Review findings from upland site reconnaissance

3. Begin critical lands protection analysis