Lick Creek Watershed Restoration Plan
Summary of Stakeholder Meeting #7
January 16, 2008

Introductions & Agenda

The Stakeholders guiding the Lick Creek Watershed Restoration Plan met on Wednesday, January 16, 2008 at 3 p.m., at the East Durham Regional Branch Library on Lick Creek Road.

Meeting attendees:

Name	Project Partner or Stakeholder	Organization	Contact Information
Chris Outlaw	Partner	Durham Stormwater Services	chris.outlaw@durhamnc.gov
Michele Droszcz	Stakeholder	NC Ecosystem Enhancement Program	Michele.Droszcz@ncmail.net
Michi Vojta	Stakeholder	NC Ecosystem Enhancement Program	Michi.vojta@ncmail.net
Julie Elmore	Stakeholder	Piedmont Resource Conservation & Development, Inc.	Julie.elmore@nc.usda.gov
Nora Deamer	Stakeholder	NC Div. of Water Quality	Nora.deamer@ncmail.net
Bill Patrick	Stakeholder	Watershed Resident	596-1692 / 475-4131 (cell)
Eddie Culberson	Stakeholder	Durham Soil and water	eculberson@co.durham.nc.us
Bev Norwood	Stakeholder	Triangle Greenways Council	ndesign@bellsouth.net
Sue Harris	Stakeholder	Watershed Resident (Shaw Hills)	dbharris66@nc.rr.com
Shari Bryant	Stakeholder	NC Wildlife Resources Commission	Bryants5@earthlink.net
Jim Fyfe	Stakeholder	Watershed resident	jandbfyfe@touchnc.net
Amy Poole	Stakeholder	Rollingview Marina	Rollingview@aol.com
Chris Dreps	Partner	UNRBA	dreps@tjcog.org
Heather Saunders	Partner	UNRBA	hsaunders@tjcog.org

The meeting agenda included (decision items marked with *):

3:00 Welcome and Introductions
3:05 Housekeeping and Announcements*
3:20 Critical Lands Protection Analysis (Chris Dreps)
3:50 Subwatershed Analysis (Heather Saunders)
4:00 Small Groups: Management Strategies
5:00 Adjourn

Housekeeping

The stakeholders discussed the schedule for the remaining three meetings. Because we are anticipating another year's worth of monitoring data and the remaining meetings are slated for the development and review of management strategies and the subsequent development of a draft management plan, it was decided that the next meeting would be held in the summer of 2008. In the meantime, stakeholders will begin to participate in small action committees that will start developing management recommendations. Heather will coordinate with stakeholders to gauge interest and form teams.

The group also recommended that the summer meeting should begin with an update of monitoring data and analysis. Chris told the stakeholders that Dan Line of NC State University would provide an update at that time.

Announcements

Chris announced that the Home Depot Grant is close to being under contract. In addition, the UNRBA has partnered with Lee-Anne Milburn of NC State's Landscape Architecture program. Lee-Anne will be asking her students to develop tree-planting plans in the Lick and Little Lick Creek Watersheds based on the results of our restoration prioritization efforts. Some of the stakeholders felt it was important to consider bank strength when designing planting plans and Heather Saunders will coordinate with Lee-Anne to make sure this is taken into account.

Heather Saunders was introduced to the group as the newest staff member at the UNRBA. Heather will be working closely with Chris Dreps on the Lick Creek Watershed Management Plan.

Lick Creek Critical Lands Protection Analysis

Chris Dreps reviewed Goals 3 and 4 of the watershed management plan (Goal 3: Develop strategies for reducing, and maintaining at levels meeting water quality standards, the pollutants identified in Goal 2; Goal 4: Mitigate future changes to watershed hydrology and water quality).

Chris Dreps also thanked Richard Broadwell, Bev Norwood, and Greg Schuster for their participation and guidance in the critical lands protection analysis.

Chris Dreps explained that the base analysis for the critical lands protection analysis was performed using the Upper Neuse Clean Water Initiative (UNCWI) Conservation Plan as a foundation. Chris Dreps provided a suite of figures to demonstrate how the critical analysis was conducted. Basically, the UNCWI analysis identifies high-scoring priority areas by converting every data set to raster (20-foot x 20-foot cells) and then scoring each cell based on whether it meets certain criteria [riparian areas, wetlands, hydraulic conductance, in drinking water supply/well critical area, erosive soils, "natural" land use, or in headwaters]. Chris Dreps provided a figure that depicted UNCWI's high-scoring priority areas in orange and red. Altogether, 539 parcels were identified as a result of this analysis and these parcels were further assessed to determine if they met other flags including the following: Natural Heritage Areas, significant-sized tracts, trail corridors, wildlife corridors, adjacency to publicly-owned lands, farmlands, site's development potential (based on zoning), and restoration recommendations (from LC fieldwork).

Chris Dreps announced that the next steps in the critical lands protection analysis will be to 1) finalize the analysis, 2) write a technical memorandum, and 3) post the memorandum and an accompanying map to the Lick Creek website.

Subwatershed Analysis

Heather Saunders gave a brief presentation concerning the subwatershed analysis. Heather encouraged the stakeholders to view the data as an aid when determining management strategies at the subwatershed level. Heather described the type of information that is being collected including projected increases in impervious surface, projected changes in land use, projected pollutant loading (TN, TP, and TSS) (based on the Watershed Treatment Model), and current water quality (data for 6 subwatersheds [1, 2, 4, 5, 6, and7]). In addition, limited biological monitoring is being conducted, but there is concern of the applicability of this data in terms of available reference material and the character of the Triassic Basin.

Heather used graphs to demonstrate that all subwatersheds in the Lick Creek watershed are anticipated to see increases in impervious surface, with Subwatersheds 4 and 5 seeing the most change. The Watershed Treatment Model predicted that TN would increase in every watershed under buildout scenario conditions (barring Subwatershed 6), and that TSS loading would go down. However, TSS from in-stream erosion was not expected to change at all, indicating that streams would continue to erode at the same rate annually. This could have potentially negative impacts on aquatic habitat and discharge. The stakeholders expressed concern that the model did not provide an accurate depiction of future conditions and expressed a reluctance to rely on the Watershed Treatment Model.

Heather reviewed the water quality data that Dan Line had presented at the last stakeholder meeting. It appears that most of the subwatersheds being monitored have decent water quality. However, Subwatersheds 6 and 7 are exhibiting poor water quality. This supports the idea that both restoration and future management strategies would be appropriate in the watershed. The stakeholders voiced concern over the appropriateness of bioclassifications in this subwatershed based on the nature of the Triassic Basin and the lack of creditable reference data.

In summary, Heather acknowledged that different subwatersheds may warrant different strategies (restoration or preservation/prevention), and that in some cases, maybe a combination of strategies would be appropriate at the subwatershed level. Heather asked the stakeholders if they believed that the data being collected on the subwatershed level could be used in guiding the development of management strategies and encouraged the stakeholders to see this process as an opportunity to develop an innovative and progressive management plan in the Lick Creek Watershed.

Small Group Activity

Chris Dreps designed a small group activity with the intention of getting the partners and stakeholders to start discussing how the subwatershed analysis might help us plan for Lick Creek's management into the future. Three groups were formed and each group was asked to answer a series of questions concerning either restoration strategies (one group) or future management strategies (2 groups). The following is a summary of the small-group responses to the questions.

Subwatershed restoration needs

For the following questions, Chris asked that the stakeholders keep in mind the restoration goals of the Lick Creek plan.

- ***GOAL 1:*** *Develop a hypothesis about the causes of biological impairment in Lick Creek and recommend approaches to addressing impairment status.*
- ***GOAL 2:*** *Identify pollutants and their sources that may be impairing aquatic habitat and water quality in Lick Creek (water quality is not impaired currently). Suspected pollutants include dissolved oxygen (and biochemical oxygen demand), fecal coliform and turbidity.*
- ***GOAL 3:*** *Develop strategies for reducing, and maintaining at levels meeting water quality standards, the pollutants identified in Goal 2.*

Questions:

1) Based on the data in the subwatershed analysis, do you believe that the Lick Creek Watershed is a candidate for watershed restoration? (If you believe that we still do not have enough information, please note this).
    - ❖ Yes

2) Is there information from the subwatershed analysis tables that make certain subwatersheds candidates for restoration?
    - ❖ The stakeholders said yes but stressed the point that more information was necessary.
    - ❖ The group felt that the recent drought would likely influence the data.
    - ❖ There was also concern that there are not enough appropriate reference data.

3) If you answered "yes" to question #2, please provide a check in the following table beside the information type and subwatershed that you believe merit consideration in management strategies aimed at restoring water quality.

Information Type	SW1	SW2	SW3**	SW4	SW5	SW6	SW7	SW8	SW9	SW10	SW11
Current Impervious Cover or Developed Land	√*	√*					√				
Water Quality Indicators					√	√	√				
Existing Pollutant Loading		√	√ (TSS)			√	√				

*Stakeholders felt that BMP's would be crucial in these subwatersheds
**Stakeholders felt that Subwatershed 3 deserved consideration based on the field-work findings

4) Are there other information that you feel need to be considered (remember that NC State University Water Quality Group will collect 1 additional year of water quality and aquatic biology data)?

- Lack of data as a result of drought
- Chris Dreps discussed the fact that recent storm-water sampling has been completed for Subwatershed 4 and that storm-water sampling is now being moved to Subwatershed 1.
- Lack of biological monitoring data…would like to see more.

Subwatershed future management strategy needs

For the following questions, Chris asked that the stakeholders keep in mind the following goals:

- ***GOAL 3:*** *Develop strategies for reducing, and maintaining at levels meeting water quality standards, the pollutants identified in Goal 2.*
- ***GOAL 4:*** *Mitigate future changes to watershed hydrology and water quality.*

Questions:

5) As the subwatershed analysis tables show, most subwatersheds in Lick Creek are planned for significant urban development beyond the current levels. Do you believe project goals 3 and 4 can be met in Lick Creek with this amount of change?
   - Possibly. Only with a real focus on stormwater "Low-Impact Development" (LID)
   - Need to adhere to strict storm-water regulations
   - Need to adhere to subdivision rules
   - The general consensus was that this was an achievable goal ***IF*** all the regulations we have in place now (e.g. BMP's, subdivision rules, etc.) were followed.

6) Do the data from the subwatershed analysis tables make certain subwatersheds candidates for management strategies to prevent future impacts?
   - Yes

7) If you answered "yes" to question #6, please provide a check in the following table beside the information type and subwatershed that you believe merit consideration in preventing water quality impacts.
   - The stakeholders agreed that all subwatersheds are good candidates for future management strategies (with the exception of Subwatersheds 9, 10, and 11 in the "Future Open Space" category).

Information Type	SW1	SW2	SW3**	SW4	SW5	SW6	SW7	SW8	SW9	SW10	SW11
Future Impervious Cover	√	√	√	√	√	√	√	√	√	√	√
Future Developed Land	√	√	√	√	√	√	√	√	√	√	√
Potentially Developable Land	√	√	√	√	√	√	√	√	√	√	√
Future Open Space	√	√	√	√	√	√	√	√			

Future Pollutant Loading	√	√	√	√	√	√	√	√	√	√	√

Potential Management Strategies (Homework from 1-16-08 meeting)

Chris handed out a homework "assignment" designed to help us start thinking about appropriate management strategies for the Lick Creek watershed. The homework is meant to serve as an opportunity for every stakeholder to contribute his or her thoughts, ideas, and comments concerning the development of management strategies. Heather will send out an electronic version of the "homework" for those who would prefer to complete it electronically, and stakeholders were asked to return their forms to Heather by February 1st. Forms can be returned to Heather via mail (Heather Saunders, Upper Neuse River Basin Association, PO Box 12276, Research Triangle Park, NC 27709) or email (hsaunders@tjcog.org).

In summary, the homework asks the stakeholders to review the Center for Watershed Protection recommended strategies for future actions (listed below) and answer the following questions:

1) Do you feel that the Lick Creek Watershed Restoration Plan should address all of these recommendations? If not, please specify which should not be addressed and why.
2) Are any recommendations missing?
3) Are you willing to participate in the detailed review of specific management strategy recommendations for the Lick Creek watershed? If so, which strategies would be most appropriate for you?

Center for Watershed Protection Recommended Strategies for Future Actions:

1) Sediment and erosion control at construction sites;
2) Uncontrolled sediment discharge from "agricultural" 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) Restoration projects to be implemented by volunteers;
10) Suspicious discharges from septic systems;
11) Outreach and education targets; and
12) Municipal infrastructure repairs.

Next Meeting

The next meeting has been tentatively scheduled for June or July (Heather Saunders will announce the time and place of the next meeting).