

Little Lick Creek Local Watershed Plan
Summary of Project Partners Meeting 1: October 25, 2004

Prepared October 28, 2004

Introductions and Meeting Objectives

The Little Lick Creek Project Team met at 1:00 P.M. on Monday, October 25, 2004 in the Triangle J Council of Governments conference room. The meeting objectives were to discuss:

- NC Ecosystem Enhancement Program (NC EEP) and partners' roles;
- Basic information about the watershed;
- Possible project goals; and
- An overview of the project and a review of the tasks.

Meeting attendees are listed below.

Name	Organization	E-mail address or phone
Chris Dreps	UNRBA	dreps@tjcog.org
Sarah Bruce	URRBA	sarah@tjcog.org
Mary Giorgino	USGS	giorgino@usgs.gov
Deborah Amaral	NC EEP	Deborah.Amaral@ncmail.net
John Cox	City of Durham Stormwater	jcox@ci.durham.nc.us
Cherri Smith	Durham City/County Planning	chsmith@ci.durham.nc.us
Kathy Paull	DWQ	katherine.paull@ncmail.net
Stratford Kay	DWQ	Stratford.Kay@ncmail.net
John Hodges-Copple	TJCOG	johnhc@tjcog.org
Chris Bouton (not a project partner)	Durham Open Space & Trails	csbouton@nc.rr.com

Center for Watershed Protection engineer Sally Hoyt participated via conference call from their office in Maryland.

Partner Roles

NC Ecosystem Enhancement Program (EEP)

Deborah Amaral, manager of the Little Lick Creek project for NC EEP, gave some background on the NC EEP. The NC EEP supports local watershed protection plans to identify top restoration and land protection opportunities. NC EEP implements some mitigation projects for NC DOT and Neuse buffer credits. NC EEP also helps locate funding to implement other projects with restorative components, such as stormwater retrofits and land conservation. Chris mentioned that UNRBA and NC EEP have a history of working together, as NC EEP (then called the NC Wetlands Restoration Program) helped fund the Upper Neuse Watershed Management Plan. (This management plan identified Little Lick Creek as a watershed that should be targeted for restoration and management.)

Upper Neuse River Basin Association (UNRBA)

The UNRBA is ultimately responsible for deliverables to NC EEP. The Little Lick Creek project will build on a number of the other partnerships and projects that UNRBA is working on, such as the Watershed Evaluation Tool that is being developed with USGS. UNRBA's

major responsibility is to help project partners communicate with one another and to facilitate the planning process. Chris Dreps will also be doing some of the field work.

UNRBA will work with local governments to get them to officially support the plan and the project's recommendations.

Center for Watershed Protection

Via phone, Sally Hoyt gave some information on CWP's role. The CWP will conduct a simple watershed pollution model, lead all field work (Unified Stream Assessment and Unified Subwatershed and Site Reconnaissance), identify potential restoration opportunities and stormwater BMPs, and review major products created by the UNRBA.

Durham Stormwater Services

John Cox said that his department is going to be providing much of the labor for the field work. They also have a great deal of information on the watershed, such as water quality data and GIS coverages (SSOs, leaky USTs, contaminated soils, BMPs, etc).

Durham City/County Planning

Durham Planning will help with the initial watershed assessment, review products, provide data, and assist in a limited amount of field work. Cherri Smith spoke about the fact that this project complements the Lick and Little Lick Open Space Plan that is currently being developed. She hopes that projects and funds can be orchestrated to provide multiple benefits.

Triangle J Council of Governments (TJCOG)

John Hodges-Copple will conduct the current and build-out analyses of population and land use. He will provide land use/land cover information for input into the CWP's watershed treatment model.

September Barnes and Ben Bearden of the TJCOG will be responsible for web page construction and mapping needs for the project.

NC Division of Water Quality (DWQ)

The Division of Water Quality staff are summarizing existing data, developing a monitoring program, and assisting with field work.

US Geological Survey (USGS)

Mary Giorgino and Silvia Terziotti are providing much of the project's GIS data, including the digital elevation model and initial watershed delineations.

Several participants emphasized that the Little Lick Creek Local Watershed Plan is a very innovative project that partner organizations hope to use as a model for other projects.

Basic Information about the Little Lick Creek Watershed

Chris showed the draft base map of the Little Lick Creek watershed study area. Little Lick Creek is a highly suburban watershed. The watershed is crossed by NC 98, which connects

Durham to Wake Forest on the south side of Falls Lake. Most of the commercial land use is along NC 98. A large amount of the watershed's land is preserved (22.7%); however, this is largely area around Falls Lake that is owned by the US Army Corps of Engineers and leased to the US Fish and Wildlife Service. There are a lot of wetlands in the area due to the impoundments that were created when Falls Lake was built.

Little Lick Creek is listed as impaired on the state's 303(d) list due to benthic macroinvertebrate ratings. The source suspected is urban development. Low levels of dissolved oxygen are also a concern. This stressor may be exacerbated by the relatively flat topography of the creek.

Potential Project Goals

Chris Dreps discussed some potential project goals. The list included:

- Restore habitat
- Restore water quality (restore stream to state of non-impairment)
- Protect Falls Lake from excess sedimentation or eutrophication
- Implement NC EEP restoration and BMP projects to meet NC DOT mitigation needs
- Reduce damage from flooding
- Involve community in the process

Drinking water supply protection might be an obvious consideration, as Falls Lake provides water for 340,000 people. Little Lick Creek also drains to a portion of the lake that might have excessive nutrients.

NC EEP is looking to meet a mitigation need for the purposes of their program. John Hodges-Copple mentioned that there are going to be several significant road upgrades constructed in the watershed in the near future. Cherri Smith pointed out that these roads will invariably cross creeks.

Reducing the impacts of flooding was discussed. It was generally agreed that any goal of this sort would have to be carefully considered and worded due to the unreasonable expectations such a goal could generate among stakeholders and the public. Several participants seemed to think that a flooding-related benefit should be considered secondary to larger benefits of stormwater retention in general; however, flooding is a salient issue. John Cox noted that Durham may consider future conditions in its floodplain mapping.

Chris mentioned that while NC EEP must rely on conservation easements to implement projects, the City of Durham has several other mechanisms for project implementation, and the City's goals should be identified. Because the watershed is in the Neuse Basin, NC EEP might be able to fund some BMPs (with money from nitrogen offset payments).

Another potential goal might be to assist DWQ with the stressor identification for its TMDL process. John Cox mentioned the difficulty of identifying "the smoking gun," but that the project might help prioritize sources to be targeted for further study. This plan will assess multiple stressors.

Deborah Amaral said it would be a good idea to ask the DWQ people developing the TMDL (Michelle Woolfolk) for input on how to better tie this study to the process of de-listing Little Lick Creek.

Deborah also said that while NC EEP will secure post-project monitoring for 5 years, a functional approach demands pre-project monitoring.

Community involvement was another goal that was discussed. Chris asked for people to contact him if they had additional input on goals at this stage.

Schedule of Work

Chris Dreps passed around a Schedule of Work, which outlined tasks and subtasks and provided a draft project timeline for each. The group discussed Task 1 in detail.

Data compilation tasks

Durham Stormwater Services is providing a great deal of data for the project. For example, they have been collecting benthic and ambient monitoring data since 2000 (monthly basis since January 2004). Keith Luck, a Durham City/County planner, is gathering data for the project, including the data that is coming from Stormwater Services.

Mary Giorgino commented that USGS had done some monitoring in the early and late 1990s and 2000. She also noted that in 1993 a package plant ceased discharging after it was replaced with a pump station to Ellerbe Creek.

John Cox discussed how the data taken from upstream of the discharge point would give some baseline information. He also discussed that much of this type of information is not in STORET. Paper files of compliance monitoring may have been purged a few years ago from DWQ's compliance branch.

Mary Giorgino emphasized the need to always have stream flow data with any monitoring information due to the relationship of flow to concentration. Sometimes, data from a nearby gage can be used to approximate flow. There were several large events in the recent past.

Stratford Kay cautioned that even large events can be very spotty and can cause highly variable streamflows.

Mary Giorgino said that restoring hydrology can be tricky when you barely know what it currently is, let alone what it was before the watershed was developed.

Chris B. asked about using non-agency data. She mentioned that the Audubon Society (of which she is a member) has been monitoring New Hope Creek. It is possible that academic organizations may be able to fill some gaps if their data can pass QA/QC (perhaps Dave Penrose knows of something).

John Cox said that Little Lick Creek is an unlikely target for such efforts because there is such poor access to the creek and it is not seen by the surrounding communities as an amenity.

Create basemap

UNRBA has produced a draft basemap. UNRBA will attempt to provide partners with color maps in the future.

Subwatershed delineation

Chris Dreps said that this task is already underway and that he is working with John Cox to corroborate the delineation with other available information, such as DEM, 2-foot contours (in City), stormwater infrastructure, and aerial photography. Mary Giorgino emphasized that in places where we lack 2-foot contour data, it would be better to use LIDAR information than the 10-foot contours.

CWP and NC EEP are going to review the delineation according to their particular needs. John Cox mentioned that when they view the stormwater infrastructure maps that they should view the lines with arrows on, as this will show the direction of flow.

Chris Dreps has begun comparing the current delineations to a more detailed delineation done by John Cox. This draft delineation, which Chris showed in a map, contains 8 subwatersheds and the main stem as the nine major units for analysis. John Cox said it was good to keep the main stem of the creek separate because it has more floodplain than the tributaries. (First- and second-order streams that contribute directly to the mainstem are not grouped into subwatersheds.) Sally Hoyt said that CWP would recommend breaking the main stem in two parts for the plan.

Cherri Smith asked about golf course locations and said it is a good idea to keep lands under the same ownership in the same subwatershed. Chris Dreps said that subwatersheds with similar land uses may sometimes be treated as a group for management purposes. Ms. Smith asked to be included in any communication regarding subwatershed delineation because she has already spoken with some landowners.

Review local development rules

Chris Dreps said that this task is already underway using the Center for Watershed Protection's Watershed Program Review, which is based on their 8 Tools of Watershed Protection. The CWP is going to look at UNRBA's work on the review after Chris pares it down to include relevant information only.

Draft scoping analysis memo

DWQ has begun to draft a scoping analysis with some preliminary recommendations for project-specific monitoring. Preliminary findings will inform site reconnaissance efforts. When site recon is finished, they will re-evaluate the initial recommendations and issue a technical scoping analysis memo.

Future impacts and Watershed Treatment Model

John Hodges-Copple is beginning the current and future buildout scenarios analysis. There are a large number of details that have to be worked out, and some trial and error will be

involved. One example is how roads are treated -- separately or as a function of uses. Sally Hoyt said CWP generally treats only major roads separately.

Chris Dreps said that good planimetric information (impervious cover) is available for the City, which can be verified with aerial photographs. This procedure may enable a fairly accurate estimate of impervious surfaces.

The Site Evaluation Tool that UNRBA is currently developing with Tetra Tech, Inc. has assumptions for event mean concentrations and BMP pollutant removal efficiencies for use in the model. The CWP will review these assumptions.

Stakeholder involvement

Chris Dreps passed around a preliminary list of stakeholders and possible additional partners for the group to review. Chris asked people to comment verbally, on the list itself, or via him in email if they had additional suggestions. One suggestion was to include the city of Raleigh as a participant/stakeholder because Falls Lake will be affected by the project and the City does monitoring. Another suggestion was to involve the Fish and Wildlife Service. Cherri Smith asked that the stakeholder list be emailed to everyone so they could have more time to think over suggestions.

A communication flow model from the USDA Stream Corridor Restoration Manual (2001) was shown as an example of possible relationships between the advisory stakeholder group, the technical teams, and decision makers.

Deborah discussed the difficulties that can arise when public involvement is conceived of too broadly: education becomes a task in itself. People who are resources, such as possible project landowners, should be identified and contacted separately from and groups who might be targeted for education, such as recreation users.

Project website

September Barnes has begun drafting the Little Lick Creek Local Watershed Plan project website. The website will be used to communicate with the public and with project partners, who may have access to areas of the site restricted for project planning purposes. Deborah mentioned how important the website will be to the many parties who wish to observe this planning process. The website will also be a place for partners and stakeholders to share project information.

Next Steps

- Project partners will continue Task 1 work in November
- We will hold the project kickoff meeting with stakeholders
- Partners will meet again when necessary (likely during task 2)