

**Lick Creek Watershed Restoration Plan
Summary of Stakeholder Meeting #8
March 19, 2009**

Introductions & Agenda

The Stakeholders guiding the Lick Creek Watershed Restoration Plan met on Wednesday, March 19, 2009 at 9:30 a.m., at the East Durham Regional Branch Library on Lick Creek Road.

Meeting attendees:

Name	Project Partner or Stakeholder	Organization	Contact Information
Alissa Bierma	Stakeholder	Upper Neuse Riverkeeper	alissa@neuseriver.org
Bobby Louque	Partner	Durham Stormwater Services	robert.louque@durhamnc.gov
Chris Outlaw	Partner	Durham Stormwater Services	chris.outlaw@durhamnc.gov
Chris Roberts	Partner	Durham County Erosion Control	croberts@durhamcountync.gov
Donna Kirkpatrick	Stakeholder	Watershed resident	
Eddie Culberson	Stakeholder	Durham Soil & Water Conservation	eculberson@co.durham.nc.us
Frank Thomas	Stakeholder	Homebuilders Association	frank@hbadoc.com
Frederick Lewis	Stakeholder	Trust for Public Land	frederick.lewis@tpl.org
Heather Saunders	Partner	Upper Neuse River Basin Association	hsaunders@tjcog.org
Helen Youngblood	Stakeholder	Durham City/County Planning	Helen.youngblood@durhamnc.gov
Jeff Kirkpatrick	Stakeholder	Watershed resident	gwannyK@hotmail.com
John Cox	Partner	Durham Stormwater Services	john.cox@durhamnc.gov
Kenny Waldroup	Stakeholder	Raleigh Public Utilities	Kenneth.Waldroup@ci.raleigh.nc.us
Mary Beth San Filippo	Stakeholder	Watershed resident	sanfilipo@verizon.net
Michele Drostin	Stakeholder	NC Ecosystem Enhancement Program	Michele.Drostin@ncmail.net
Sarah Bruce	Partner	Upper Neuse River Basin Association	sbruce@tjcog.org
Steve Kroeger	Stakeholder	NC Division of Water Quality	steve.kroeger@ncmail.net
Tina Motley-Pearson	Stakeholder	Watershed resident	tinamotley@earthlink.net

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

- Housekeeping & Introductions
- Long-Term Monitoring Plan
- Analysis of Potential Demonstration Projects
- Final Recommendations
- NCEEP Implementation Planning
- Next Steps

Housekeeping & Introductions

Heather first went over the deliverables and tasks that have been completed to date and explained which tasks were left to do. The Lick Creek Watershed Management Plan is scheduled for completion in March 2009. Attendees then went around and introduced themselves. A broad diversity of stakeholders was represented.

Long-Term Monitoring Plan

Dan Line gave a brief presentation about the [Long-Term Monitoring Recommendations](#) that have recently been shared with the stakeholders for review.

Dan said that he defines “long term” as 5 years or more. Objectives drive the plan; Dan identified three main objectives he defined based on stakeholder interests:

- 1) Documenting pollutant inputs into Falls Lake;
- 2) Identifying subwatersheds most in need of restoration efforts and effects of restoration efforts; and
- 3) Documenting effects of development in a subwatershed.

Dan asked if there should be others. Sarah Bruce added that a better understanding of Triassic Basin biota and responses to development would be useful. Bobby Louque with the City of Durham said he has instituted biological studies, but finding reference conditions for Triassic Basin streams to determine pre-disturbance characteristics is very difficult.

Kenny Waldroup added that one overarching/process objective might be to ensure that any additional data are well integrated with other data, such as Joann Burkholder’s research on Falls Lake.

Dan briefly reviewed the short-term monitoring program and monitoring locations. Dan recommends keeping sites the same for long-term monitoring because they are working well. He especially recommends keeping L1, L3, L5, and L6. L5 is for comparative purposes with L6; it is relatively undeveloped but otherwise very similar. The [Draft Lick Creek Long-term Monitoring Recommendations Memo](#) has more details and includes a map of the monitoring locations referred to here. Dan recommends that the long-term sampling parameters be consistent with the short-term and on-going water quality measurements:

- Total Kjehldahl Nitrogen, NH₄ (ammonia), NO_x, TP, TSS
- Turbidity, dissolved oxygen, temperature, pH, conductivity
- Bacteria – very important to recreation
- Stream stability at L6
- Macro-invertebrates at L1

Dan said it is possible to get a single device that measures all of these parameters.

Martin Branch has slightly elevated nitrate. L3 has high ammonia, an indicator of sewage and/or animal operations (which do exist in L3's watershed). Alissa Bierma would like to see L2 kept, given the land use.

Durham plans to continue monitoring L1 and L3 only; it is difficult for the City to justify monitoring locations that are not part of the City. SWCD is not conducting any monitoring. Kenny Waldroup suggests using additional monitoring as a mitigative measure for delaying the Falls Nutrient Management Strategy.

The group discussed a cooperative monitoring program. The Neuse River Compliance Association has a monitoring strategy funded by everyone with NPDES permits in the basin, which funds a lot of monitoring below the dam. Expanding the Triangle Area Water Supply Monitoring Project is another option.

Volunteer/University-conducted monitoring is another option. Chris Outlaw suggested that quality assurance documentation for volunteer monitoring program would help the data be more usable. Riverkeepers are talking about a statewide volunteer monitoring program. Bobby Louque pointed out that lab analysis is the bulk of the cost, especially if nutrients and metals are of interest; however, parameters that can be measured in the field directly have little cost.

Heather suggested a follow-up meeting to discuss long-term monitoring before data gathering lapses too much.

Analysis of Potential Demonstration Projects

The goal of analysis of demonstration projects is to look at the potential nutrient removal (or prevention) benefits of various types of projects and publicize them to entities and the community to build support for implementation. Potential projects were identified as part of the Lick Creek Watershed Restoration Plan fieldwork. Chris Roberts said that Durham County does an annual "Neuse report" that has some additional project opportunities. An important component to successfully documenting the potential pollutant removal of a project is to use the right kind of modeling tool to predict reductions. The group agreed that a diversity of project types (buffer, BMP, stream restoration, etc) would be ideal.

Durham Soil & Water is doing a stream restoration project and has performed some analysis of pollution prevention using the Bank Erosion Hazard Index. Helen Youngblood mentioned a school site getting ready to be developed that has site plans and includes a detention area and additional buffer plantings. NRF is designing a program for 8th graders to do service learning, possibly this site could be a pilot.

Chris Roberts, Alissa Bierma, and Helen Youngblood volunteered to help with the analyses. Funding opportunities for projects could include Clean Water Management Trust Fund, East Durham Open Space Plan, mitigation for Raleigh's Little River Reservoir, and credit for nutrient removal for NMS. Also, the new Durham stormwater regulations are pushing land banks.

Stakeholder Discussion on Plan Recommendations

Management Strategy #1: Erosion and Sediment Control on New Development

The group discussed the usefulness of including a mention of rate of development in the recommendations. Alissa Bierma said this info helps make the case for the fact that the problem isn't going away any time soon. Sarah suggested moving this bullet to future threats and making the point that department staffing should be able to deal with expected increases in construction.

Sediment and erosion control is required for all sites; however many NCDOT, agricultural, and forestry operations are exempt. Disturbance of more than 12,000 square feet (sf) (3-4 lots) requires a land disturbance permit. Greater than 1 acre of land disturbance requires a sediment and erosion control plan, and this threshold is about to be reduced to 20000 sf. Even if a permit isn't required, they are still subject to the law: Ordinance requires ANY disturbance to have measures in place to prevent erosion.

12000 sf often won't catch people building individual homes; these are generally caught at the time of building permit application: The Building and Inspections department tells applicants that they do have to control sediment, but there are no inspections or permits. There are a few small projects that get done without building permits.

Ways to catch small developments were discussed. 12000 sf is very standard as a disturbance threshold, and staff feel that lowering this threshold would be strongly opposed. Environmental enhancements to the UDO will be place more restrictions on this threshold.

Average development size is 7 to 10 acres (less this year) and will shrink as Durham becomes more developed. Lowering the threshold for a plan was said to be the best way to catch problems. The group discussed notification of adjacent property owners. Most developers do give neighbors notice of grading commencement as a courtesy, but this is not required. Homeowner Associations could serve as a great ally. Muddy Water Watch has done a lot of work on concisely explaining the SEC regulations and Alissa Bierma said she would be happy to help the County with a brochure. Most complaints are from small disturbances. Sarah mentioned that this may be because of screening requirements applied to larger developments that prevent adjacent landowners from observing activities.

Alissa Bierma proposed a new recommendation to analyze violations received, why they occurred, and who reported them. Helen Youngblood suggested two new recommendations that would apply to the public:

- Support changes to local SEC ordinances (many changes are being made already)
- Follow up on changes to suggested environmental enhancements to UDO.

The group then discussed ponds and the issue of their getting drained for development. Many don't meet criteria for preservation, but are wetlands. The Planning Department tries to get developers to preserve ponds and use them (with upgrades) as bioretention. Developers may drain ponds BEFORE they submit their applications to avoid this and attendant stream buffer regulations that are applied to ponds.

If it's a manmade pond, it can be drained. If ponds are drained, they have to be drained through a sediment bag.

Galvanized pipes that are used as outlets eventually rust; if the pond is kept, they need to be replaced with PVC. SWCD does a lot of modifications in this respect.

Our plan should emphasize benefits of retaining ponds through the development process. Helen said that conservation subdivisions can get credit for ponds now.

Management Strategy #9 – Restoration Projects to be Implemented by Volunteers

Stakeholders suggested contacting local groups that have already been established, such as the Ellerbe Creek Watershed Association.

Alissa Bierma suggested a clearinghouse of project needs and available resources; volunteers shouldn't have to work so hard to find projects. One problem is that the opportunities are not shovel-ready. Another problem with sharing information on projects is landowner confidentiality. Heather mentioned the importance of being tuned into community interests; rain gardens are of interest right now.

The group discussed who should approach landowners, and how. John Cox sees the benefits of a nonprofit approaching landowners rather than the local government, which makes it sound like something they HAVE to do. Michele Drostin recommended that the nonprofit get them comfortable with the concepts, then say that the city/county/state is the funding opportunity.

Helen Youngblood mentioned that they had been successful going through the Ruritan Club in East Durham. She suggests getting someone who already has a conservation easement to come and speak (street-credit). In East Durham residents have pretty different backgrounds.

John suggests that someone develop a card for interested landowners to fill out contact information to help develop a database of willing landowners and to help match land with projects. These cards could be laid out at community meetings, festivals, etc. People who attend events are already interested and landowner willingness is one of the biggest hurdles to seeing projects implemented. People seeing other people signing up will help build momentum and interest.

NCEEP Implementation Planning

Our role is to come up with a strategy for implementing projects that have been identified through watershed plans. Currently we are cataloging the projects identified in local watershed plans in atlases. UNRBA is to work with an implementation team to come up with a strategy to get landowners interested, decide which projects to target first, perform general outreach to help make connections with specific landowners, and see projects implemented in the group.

Mrs. Kirkpatrick received outreach and was interested, but then got dropped (repeatedly?) by multiple agencies. Follow through is generally perceived as poor. Agency doesn't maintain a list of folks who have been reached out to. How do we connect the two pools? Our goal is to help willing landowners connect with agencies who can help. Willing landowners need to be shepherded. If a project is deemed unsuitable, then the landowners should be sent a follow-up letter at least explaining why that particular project failed and reassuring them that we are keeping them in the pool of potential projects for other funders and/or direct them towards an appropriate agency.

Chris Roberts: Some activities require very little funding, such as stream cleanups.

One question was brought concerning how we protect viable restoration projects from being damaged or developed? Helen Youngblood indicated that anything in Lick/Little Lick is already looked at very closely for environmental considerations (300 foot buffers, open space, etc.) and that we should send her a GIS layer of known projects as soon as possible for inclusion in their database.

The JCCP is developing a compiled map of open space to enhance connectivity with existing parcels. The East Durham open space plan is an actual layer used in the development review process.

Alissa Bierma– this could be a powerful tool for people considering purchasing land (for conservation?).

EEP needs buffer restoration/enhancement projects NOW.

Durham is doing annual satellite imagery for impervious cover mapping in the leaf-off season. John Cox wants to do a leaf-on assessment to evaluate buffer encroachment. If the City of Durham funds this effort, it won't cover county areas. There will be a countywide impervious cover dataset.

Alissa Bierma says they have volunteer pilots who can take aerial photos, but John Cox noted that it has to be rectified in order to be compatible with GIS and other imagery datasets.

A volunteer network could be developed that would help alert regulators to illicit buffer impacts notifications.

Next Steps

UNRBA will meet with the City of Durham and Durham County to update recommendations based on existing, recently updated, and potential regulatory changes. Subsequently, we will begin meeting in smaller groups to finalize groups of like recommendations and hash out remaining issues. Because the final plan is due to be completed in the next couple of months, it will be critical to complete these reviews as timely as possible.

In late summer, UNRBA will present the final Lick Creek Watershed Restoration Plan at JCCCP, commissioner work sessions, and the like. At a minimum, the stakeholders hope that they “Accept” the plan if not adopt it.