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Technical Advisory Committee
September 17, 2002

Prepared September 18, 2002

Our mission: To preserve and protect the water quality in the Upper Neuse River Basin through innovative, cost effective and environmentally sound strategies and to create a coalition of local governments and stakeholders in a water resources partnership.

The Technical Advisory Committee of the Upper Neuse River Basin Association (UNRBA) met at 1:00 P.M. on Tuesday, September 17, 2002 in the North Durham Water Reclamation Facility training room. The objectives of the meeting were to:

- Summarize the UNRBA's activities over the summer;
- Form a Supplemental Funding Task Group;
- Present a summary of local government staff responses to the Draft Upper Neuse Watershed Management Plan and its recommendations; and,
- Receive TAC clarifications and recommendations for proceeding toward presentation of the recommendations to the UNRBA Executive Committee for approval.

Meeting attendees are listed below.

Name	Organization	E-mail Address or Phone
Danny Johnson	Granville County Planning	planning@granvillecounty.org
Trevor Clements	Tetrattech	trevor.clements@tetrattech.com
Michael Adcock	City of Durham Env. Resources	madcock@ci.durham.nc.us
Perry Sugg	Orange County	psugg@co.orange.nc.us
Keith Luck	Durham City/County Planning	kluck@ci.durham.nc.us
Scott Miles	Town of Wake Forest	scott.miles@ci.wake-forest.nc.us
Watson Brown	City of Raleigh Planning	brownw@raleigh-nc.org
Cam McNutt	NC Division of Water Quality	cam.mcnutt@ncmail.net

Joel Cross	City of Creedmoor	jcross4620@aol.com
Tony Hammond	City of Creedmoor	citymanager@cityofcreedmoor.org
George Norris	NC Watershed Restoration Program	george.norris@ncmail.net
Paula Murphy	Person County	pmurphy@personcounty.net
Margaret Hauth	Town of Hillsborough	margaret.hauth@hillsboroughnc.org
John Cox	City of Durham Stormwater	jcox@ci.durham.nc.us
Mark Senior	City of Raleigh Stormwater	mark.senior@ci.raleigh.nc.us
Chris Dreps	UNRBA	dreps@tjco.org

Introductions and Meeting Objectives

Chris Dreps began the meeting by asking participants to introduce themselves. He then presented the meeting objectives:

- Summary of UNRBA activities over the Summer
- Discuss supplemental funding opportunities
- Local Staff review of the Draft Plan
- Discussion of how to proceed with the Draft Plan recommendations

Summary of UNRBA Activities

1. *Upper Neuse Watershed Management Plan:*

The Draft WSMP is available on the UNRBA's website (www.unrba.org)

Local government staff and officials from several communities have met with the UNRBA coordinator and reviewed the Draft Plan. The governments that have met to date: Raleigh, Durham (City and County), Person County, Orange County, Hillsborough, Granville County and Creedmoor. Those yet to meet include Wake County, Wake Forest, Franklin County, Butner, and Stem. 11 of the 14 jurisdictions have submitted staff responses.

2. *Environmental Education and Public Outreach:*

Website

The interactive website has a new look and functionality. The home page has been changed. The website address is www.unrba.org. The UNRBA, with assistance from the TJCOG, has been updating the site throughout the summer.

Conservation Easement Workshops

The UNRBA and the NCWRP, in partnership with NC Cooperative Extension (NCSU, Wake County, and Person County) and the Triangle Land Conservancy, held 2 workshops in June (in Wake and Person Counties) for landowners in the Upper Neuse River Basin. The day-long workshops presented the information listed below:

- Conservation easements and natural areas (forestry, wetlands, riparian areas)
- Introduction to land trusts/monitoring and stewardship
- Legal aspects of creating a conservation easement
- Rights and responsibilities of landowners and conservation agencies
- Appraisal of conservation easements
- Estate planning/NC Conservation Tax Credit Program

The Wake County workshop attracted twenty-one landowners, local government staff, and organization staff. Twenty-five people attended the Person County workshop. The UNRBA will partner with the Durham County Farmland Preservation Trust Board to conduct a third workshop in Durham County in November.

Reducing Development's Impacts on Water Resources Workshop (LID Workshop)

On July 23 and 24, the UNRBA, NCWRP, and TJCOG successfully completed a 2-day workshop relating to the use of "Low Impact Development" (LID) techniques for reducing the hydrologic and ecological effects of stormwater runoff. Larry Coffman (Associate Director of Programs and Planning Division, Department of Environmental Resources, Prince George's County, Maryland), a nationally-recognized expert on LID, was the keynote speaker and technical presenter.

About 80 local and state government staff, local elected officials, private developers and consultants, university researchers, and citizens from watershed/environmental groups attended the two-day workshop.

The response from the workshop was extremely positive. In addition to positive evaluations, several participants have expressed the desire to form a Low Impact Design Academy that would offer local governments, private practitioners, and researchers to improve local implementation of the LID principles. Informal discussions are already under way. A detailed summary of the workshop is available on the UNRBA website (www.unrba.org)

Living Water and Beyond Workshops

The UNRBA, in partnership with the NC Division of Parks and Recreation (Eno River State Park and Falls Lake Recreation Area), and the City of Durham Stormwater Services, held 2 two-day Environmental Education Learning Experience (EELE) workshops in Durham. The

workshops provided local teachers and others working with school-aged children the opportunity to learn about natural river systems, water quality monitoring, and the use of benthic macroinvertebrates species as indicators of stream health. On day one, participants monitored conditions in a "natural" stream, the Eno River. On day two, participants monitored conditions in an impacted stream, Ellerbe Creek in Durham. Participants then identified some probable causes of degradation, discussed cause and effect relationships, and learned strategies for sharing this information with young people.

The overall response to the workshop was excellent. About 50 educators attended the workshops, and several mentioned that this was the best EELE workshop they had attended.

The Eno River State Park and the UNRBA have committed to conducting another Living Water and Beyond workshop later this fall. Funds already committed from the NCWRP grant have made the workshop possible.

Collaborative Nonpoint Source Education Campaign

The UNRBA is a founding partner of the Clean Water Education Partnership (CWEP) initiative to establish a collaborative mass media nonpoint source education and awareness campaign throughout the Neuse River Basin and part of the Cape Fear River Basin. The program includes television and radio spots, newspaper ads and articles, related print materials, and a program website. The television spots began in April and have been running regularly on WRAL (Raleigh) and WCTI-TV (New Bern).

3. Detailed Local Watershed Assessments and Plans:

The UNRBA is currently assisting the NCWRP to develop detailed watershed assessments for the Lake Rogers (Granville County) and Ellerbe Creek (Durham) watersheds. This process will create local watershed plans and identify priority locations for stream and wetland restoration projects. The UNRBA supports the assessment effort by providing mapping and geographic data analysis, assistance in the field verification of maps, input at stakeholder meetings, and preparation of the final assessment.

Supplemental Funding Task Group

Chris Dreps described the need for supplemental funding to support ongoing activities and the future goals of the UNRBA. TAC members agreed that funding is a need requiring a task group to set criteria, make contacts, and generally assist the Coordinator in the fundraising process. Volunteers to date are George Norris, Danny Johnson, Terry Rolan, and Becky Heron.

Staff Review of Draft Watershed Management Plan and Recommended Strategies

Chris Dreps summarized the responses that the UNRBA has received to date from local government

staff. Over the summer, Mr. Dreps met with most of the UNRBA member governments to present the Draft Plan and recommended watershed management strategies. The UNRBA Board of Directors requested that local government staff review the Draft Plan and offer responses.

Reviewers were asked to comment on general aspects of the Draft Plan (the document, the analysis, the management priorities, etc.) and the specific watershed management recommendations, which are grouped into the categories below.

1. New Development Site Management
2. Monitoring and Enforcement
3. Education/Citizen Stewards
4. Point Source Controls
5. Stream Restoration Projects

Table 9 (p.41) from the Draft Plan, 'Management Plan Components', summarizes the recommended strategies. This table was handed out (yellow copy) at each of the local government staff review meetings.

The attached summary table, titled "Staff Comments: Draft Upper Neuse Watershed Management Plan" is a matrix of the local government staff responses. This matrix follows the same order as the Management Plan Components table. The group agreed to review and finalize the matrix to be presented at the next Board meeting. I have listed below several comments that accompanied the staff responses. These comments help to identify the general reasoning behind staff responses and some specific local government responses where appropriate. These comments were presented in the same order shown above, with general comments first followed by the five categories of recommendations.

General Comments

Upland Lake in Flat River

Durham is interested in the possibility of an upland lake in the Flat River watershed as a measure to protect water quality in Lake Michie. Person County is against this idea for various reasons (in-stream measure for protecting water quality, lack of benefit to surrounding community). Many on the TAC feel that EPA would not allow such a project as an instream measure to protect downstream water quality.

Management Priorities

The Inadequate Water Supply priority (currently Level 3-Important) was never adequately addressed and should be given more attention (both Durham and Raleigh staff mentioned this)

Map

"At some point (in the implementation process), we will need a more definitive map (for use by local governments)". Current maps are not detailed enough.

Benefits vs. Burdens

Upstream, rural jurisdictions feel that many of the burdens and few of the benefits lie with them. We should quantify the discussions of Protection Goals, Paying for New Costs, and Balancing Burdens. There should be a better understanding of the sources of impairment. For example, if we are going to say that there will be nutrient loading increases in a sub-watershed, then we must say (at least proportionally) what will cause these increases (what percentage is agriculture and what is new construction?).

1. *New Development Site Management*

Performance Standards:

- Many communities are interested in performance standards.
- Who will be responsible for oversight?
- Lack of technical expertise/Complexity of approach.
- How to pay for this new approach?
- Confusion about how performance standards will be implemented.
- Concern that developers might use untested methods to obtain compliance and leave the local governments in a bad situation if the systems fail.
- Some jurisdictions mentioned that the state should have a role in implementing a phosphorous standard.
- There is a need for the State to complete a design guidance manual; otherwise local governments will be overwhelmed by new standards.
- Should be "based upon realistic, literature-supported BMP efficiency expectations".
- Are the recommendations for "total nitrogen" and "total phosphorous"?
- City of Durham Stormwater Services staff believe the Draft Plan's N and P loading estimations may be higher than actually occur under currently applied controls.
- Durham feedback: it is important to obtain buy-in for the performance standard concept before developing detailed implementation strategies.
- Potential conflicting demands in attempting to meet both N & P limits.
- N & P standards could encourage "greenfield" and discourage infill development (added difficulty in meeting requirements). P loading may not be achievable in conventional commercial development without severely restricting imperviousness.
- There may be a need for a credit program similar to that used for N in Durham.

Density Limits:

- Some municipalities do not see this as an issue, although this issue is fuzzy in areas that are annexed.

- Orange County's Comp. Plan update will incorporate the UNRMP recommendations (County is still evaluating lower recommended densities in several water supply watersheds).
- Person County is interested in accommodating a cluster approach in the Helena/Timberlake area in exchange for larger, less dense development in other areas of the southern end of the county.

100-foot Buffers:

- Supported only for perennial streams in some counties.
- Several jurisdictions have (or are recommending) 100-foot buffers.
- Some jurisdictions have buffer ordinances requiring protection of steep slopes, floodplains, or other natural features (Durham, Orange, Wake is proposing).

Peak flow management for over 10% impervious cover:

- Raleigh questions the 10% figure (12% is acceptable).
- Some comments reflect the feeling that this recommendation needs to be much clearer. For example, peak flow management for what storm (1-year, 24-hour)? What would be required of local governments?
- Wake County's watershed management planning process identified no healthy watersheds with greater than 10 percent impervious cover.
- Durham supports the standard if it includes provisions for flexibility such as those in the Georgia Stormwater Manual.

Changes in Ordinances to Allow for Low Impact Development:

- Most are interested in learning more about this approach.
- "The emphasis on LID is premature and needs to be evaluated in terms of its capability of satisfying the (proposed) performance standards for achieving nutrient and peak runoff goals.
- Many acknowledge the need for testing the LID methods.
- Orange County allows "Low Impact Development" in their ordinances.

2. Monitoring and Enforcement

Long-term monitoring:

- A couple of counties are supportive of establishing long term water quality monitoring and Adopt-a-Stream programs if funding is available.

5-year Septic Tank Inspections:

- Some feel that we are understating the problem of aging systems and their potential for water contamination.
- Almost all counties see this as very difficult to implement. In all cases, the issues are cost, who will pay, and how much staff will be necessary to carry this out.
- Wake County feels they would have to double their inspection staff in order to implement this recommendation.
- Some mentioned that a state requirement would make this recommendation possible.
- Durham supports public management of on-site wastewater treatment, citing EPA recommendations that would qualify the Upper Neuse as sensitive to excess nutrients and in need of rigorous public management models.
- Durham Environmental Health would like to have more data linking documented stream degradation to onsite sewage treatment.
- Durham County has 5,168 documented discharging sand filters.

Storm drainage and Sewer Inspections:

- Some feeling that this has little water quality benefit (Raleigh) Some see this as an unfunded mandate

Stormwater Quality BMP Inspections:

- Concerns about costs
- "The NCDENR Water Quality Section has directed Durham County to identify (stormwater?) retrofit locations. The omission of this strategy is not consistent with the core values within the UNWMP."

3. *Education/Citizen Stewardship*

- In general, most local governments strongly support the education recommendations.
- Counties feel that the Agriculture BMP education is already in place.
- LID education needs to come long before the design stage of a project.
- "Suggest that a COG or DWQ develop standardized training materials.
- (Franklin) County could work with other jurisdictions and organizations to promote LID".
- Many citizens are still unaware of the Neuse buffer rules.
- "Programs could be shared among local governments to limit expenses."
- There is a need to educate the construction industry (ie, Clean Water Contractor Program)
- City of Durham has an environmental educator on staff (public works dept.).
Orange County has a position that has not been filled.

4. *Point Source Controls*

NPDES Program Requirements:

- The timing of these recommendations could be helpful to those towns that will have to meet NPDES Phase II requirements (Hillsborough and Wake Forest).

Regional WWTP's w/ Advanced Tertiary Treatment (DENR Policy):

- "Very good idea but requires a great deal of regional commitment and cooperation." There is some confusion about this recommendation. We need to make it clearer.

5. *Stream and Wetland Restoration Projects*

- In general, local governments support riparian reforestation, stream bank stabilization, and streambed/wetland restoration projects. All are interested in the UNRBA pursuing funding sources for projects.

Discussion

The group agreed that most of the recommendations are supported conditionally by local government staff. Substantial obstacles exist to implementing density limits in many jurisdictions. However, the recommendation allows a local government to opt for the nitrogen and phosphorous performance standards as an alternative to a strict density limit on new development.

In addition, some reviewers feel that substantial obstacles exist to the implementation of long-term monitoring and regular (5-year) mandatory septic tank inspections. Most opposition is based on the substantial costs (staff support and training) required to implement these approaches.

Overall, the Education and Citizen Stewardship recommendations are supported. There is no substantial opposition to any of these recommendations. The major concern is funding such approaches. The UNRBA should consider the need for enhancement of education programs as criteria for supplemental funding proposals.

In general, local staff fully support stream and wetland restoration projects. These projects should be sought out, and funding sources should be located. George Norris of the NC Wetlands Restoration Program, reminded the group of its commitment to the NCWRP to identify restoration opportunities and areas prioritized for preservation in the Upper Neuse Watershed Management Plan. Identifying and prioritizing these opportunities will give us a tool with which to approach funding sources like the Clean Water Management Trust Fund. Mr. Norris feels that the UNRBA is likely to receive funding with such an approach. Mr. Dreps agreed to make this a priority over the fall.

Next steps

The TAC agreed to review:

- The responses in the attached Staff Comments table; and

- The comments in this document.

TAC representatives will respond to me in a timely manner to provide feedback before the next Board meeting, to be held in approximately one month. In addition, TAC members and appropriate staff that they choose should clarify any specific questions or areas of concern and provide detailed written responses to the UNRBA.

The Supplemental Funding Task Group will meet as soon as a time can be arranged.

The meeting adjourned at 3:00.