

UNRBA Technical Advisory Committee May 12, 2010 Meeting Summary

UNRBA 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.

Introductions and Meeting Objectives

The Technical Advisory Committee of the Upper Neuse River Basin Association (UNRBA) met at 9:30 a.m. on Wednesday, May 12, 2010 at the Triangle J Council of Governments offices.

Meeting agenda:

- Nicholas Institute Survey of Local Leaders on Water Scarcity Perceptions
- Nicholas Institute Work on USDA Agricultural Practices Nutrient Accounting Tool
- Directions for the UNRBA LID Recommendation Sheet
- Announcements & Project Updates
- UNRBA Work Plan

Meeting attendees are listed below.

| Name | Organization | E-mail address |
|------------------|---|---------------------------------|
| Chris Roberts | Durham County Engineering | croberts@co.durham.nc.us |
| Mark Senior | City of Raleigh Stormwater | Mark.Senior@ci.raleigh.nc.us |
| Harold Kelly | Person County Environmental Health | hkelly@personcounty.net |
| Terry Hackett | Orange County Erosion Control | Thackett@co.orange.nc.us |
| Paula Murphy | Person County Planning | pmurphy@personcounty.net |
| Melinda Clark | Wake County Environmental Services | melinda.clark@co.wake.nc.us |
| Dan McLawhorn | City of Raleigh Attorney's Office | Dan.McLawhorn@ci.raleigh.nc.us |
| Melissa Hodges | Town of Butner Planning | planning@butnernc.org |
| Barry Baker | Granville County Planning | Barry.Baker@granvillecounty.org |
| Lindsay Mize | South Granville Sewer and Water Authority | lmize@sgwasa.org |
| Haywood Phthisic | LNBA/NRCA | Hmp3rd@aol.com |
| Scott Miles | Town of Wake Forest Engineering | smiles@wakeforestnc.gov |
| Reggie Hicks | Durham Water Management | Reginald.Hicks@durhamnc.gov |
| Hunter Freeman | Withers & Ravenel | HFreeman@withersravenel.com |
| Sandra Wilbur | City of Durham Stormwater Services | Sandra.Wilbur@durhamnc.gov |
| Suzanne Harris | HBA: Raleigh-Wake | sharris04@hbawake.com |
| Frank Thomas | HBA: Durham-Orange-Chatham | frank@hbadoc.com |
| David Cooley | Nicholas Institute | dmc31@duke.edu |
| Bill Holman | Nicholas Institute | bill.holman@duke.edu |
| David Gordon | Duke University Student | david.r.gordon@duke.edu |
| Emily Spear | Duke University Student | emily.spear@duke.edu |
| Mike Schlegel | Triangle J Council of Governments | mschlegel@tjcog.org |
| Heather Saunders | Triangle J Council of Governments | hsaunders@tjcog.org |
| Sarah Bruce | Upper Neuse River Basin Association | sbruce@tjcog.org |

Nicholas Institute Survey of Local Leaders on Water Scarcity Perceptions

Duke University graduate students Kevin Fritz and Jennifer Fitts presented findings from a recent survey on water scarcity perceptions conducted for the Nicholas Institute for Environmental Policy Solutions. The purpose of the survey was to gauge the awareness and perceptions of local elected officials and water managers about water scarcity in the Triangle region of North Carolina. A web-based survey elicited 104 responses, one-fifth of which identified themselves as elected officials, another one-fifth as water managers, and the remainder as staff. The responses indicate that there is widespread awareness of water scarcity issues among respondent groups, but there are differing opinions between state and local levels about the immediacy of water scarcity concerns. There are also significantly different, and conflicting, opinions over who has and who should have control over water quality, supply, and allocation decisions between the state and local levels. Finally, the survey indicates that there is a widespread belief on the part of respondents that decision makers at both levels have the tools needed to address scarcity concerns in the future.

Sarah mentioned that another group of Duke students had looked at willingness to pay on the part of the general public (in Raleigh and Durham) for water quality improvements, including improvements that took place in their water supply watershed but outside their jurisdiction (report available: email Sarah). Melissa Hodges mentioned that Butner had looked at levels of service scenarios for their comprehensive plan update.

Nicholas Institute Work on USDA Agricultural Practices Nutrient Accounting Tool

David Cooley of the Nicholas Institute presented an online USDA tool that estimates nitrogen and phosphorus reductions from agricultural land use scenarios. The tool requires minimal data and allows identification of specific farm fields and modeling of a baseline scenario for the farm (e.g. cropping system, amount of fertilizer used, tillage) as well as alternative scenarios with different conservation practices (e.g., vegetated buffer). The tool then estimates the difference in N and P loading from the field, which could then be used to determine nutrient trading credits. The tool may be ready for use in the Upper Neuse in time for Stage II of the Falls Lake Nutrient Management Strategy.

Directions for the UNRBA LID Recommendation Sheet

At their last meeting, the UNRBA TAC decided to include LID in the implementation phase of the Upper Neuse Watershed Management Plan. Sarah provided the group with a handout excerpting the NC LID Guidebook on Upper Neuse hydrophysiographic regions.

Comments from attendees included:

- Set-aside open space needs to remain completely undisturbed. Even construction traffic can decrease infiltration. Removing vegetation and topsoil heavily impact infiltration.
- Mature vegetation offers better infiltration benefits
- Multiple points of discharge are very important. Conventional stormwater management may substantially reduce the number discharge points.
- LID will require an entirely different way of reviewing development plans because stormwater management cannot just be considered after all other requirements are met or in isolation of other review processes.

- What the state approves will continue to constrain practices that will make sense for individual proposals.
- Maintenance (and enforcement) of practices that are dispersed and/or located on private lands is especially challenging.
- LID may have implications for sediment and erosion control; it often makes sense for developers to use permanent ponds as SEC basins during the construction phase. Dual-purpose ponds save developers land – how well could smaller practices work for SEC purposes?
- Mimicking natural hydrology involves not just volume but also peak rate and duration. The difference in volume may actually be not great, depending on the pre-development condition.
- Reducing impervious cover to begin with is an important LID practice, but doing so may conflict with other community goals that involve increasing density, such as walkability. However, impervious cover per se is not the problem; allowing it to impact the hydrograph is.
- One site in Orange County reconciled the desire to use curb and gutter with LID by having the curb inlets discharge to swales.
- LID designs might or might not comport with the numerous regulations local governments must comply with. Ordinances and development plans must comply with Water Supply Watershed, Phase II, and Jordan/Falls/Neuse Nutrient rules, and alternative designs can be tricky to mesh with these. However, it is possible that calculations needed for stormwater review for LID could be used to demonstrate compliance with these state requirements (based on volume and peak flow rate controls, which the hydrograph demonstrates). The new Wake County stormwater ordinance may have some pertinent ideas, and the new BMP calculations that Bill Hunt is working on may also be helpful.
- If soils don't infiltrate well before development, matching curves is not a huge hurdle.
- Strict infiltration is normally not creditable in Durham; even bioretention areas are required to have underdrains. Pervious pavement has to have some sort of underdrain or additional sand filter. This is based on the state BMP Manual. Doing site-level practices may be more beneficial.
- It would be interesting to see do a case study on how a high-quality LID design would fare going through each local government's development management program.

In general, the group felt that identification and removal of programmatic (regulatory and plan review) obstacles to LID was the more critical challenge to be addressed than the technical challenges of matching peak flows.

A number of TAC members volunteered to review the draft recommendation sheet (Melinda, Chris, Sandi, Suzanne, Barry, Melissa, Terry, Mark). Chris Roberts mentioned a professor at NCSU who might be able to help (Dwane Jones).

Announcements & Project Updates

Falls Lake Nutrient Management Strategy

The public comment period could start as early as June 15, but this assumes an expeditious approval of the Fiscal Note by the Office of State Management and Budget. The EMC made changes to the rules as presented at their March meeting and the final text has not yet been issued (see email attachment for final rule text).

Greater Triangle Stewardship Development Awards

Sarah announced that the GTSDA program would be soliciting applications for recognition of land development projects that go above and beyond compliance this summer. The Program is seeking resolutions of support from relevant organizations and local governments and is setting up a Governing Council.

Local Government UNRBA Presentations

Sarah is available to present to local governments on any Upper Neuse issue upon request. Regardless, Sarah will be setting up presentations with local governments to present findings from the Ecosystem Enhancement Program Project Implementation / Phase IV.

Festival for the Eno River

Heather Saunders announced that the UNRBA would again provide a booth at the annual Festival for the Eno River that would include space for UNRBA members to showcase their efforts. Anyone interested in volunteering or providing materials (e.g., pamphlets, giveaways) should contact her at (919) 558-9319 or hsaunders@tjcog.org.

Upper Neuse Water Quality Monitoring Plan

TJCOG applied to the DWQ 205(j) program to develop a monitoring plan for the Upper Neuse Basin and is waiting for funding for the project to be released. Since there is substantial interest in commencing monitoring (paucity of data; rule timeline for Stage II and requirements for 5 years of monitoring data for modeling), TJCOG will cover the cost of kicking off the project in advance of DWQ releasing funds for plan development. Heather Saunders is the staff point of contact for this project: (919) 558-9343 / hsaunders@tjcog.org.

Actual water quality data collection will be handled under a subsequent project, hopefully with some funding from DWQ. Since it is critical that any data collected under a future program be accepted by DWQ, developing an MOU with the Division will be part of the current 205(j) Plan Development project. Sarah noted that the development of the monitoring plan may be an intensive process due to time constraints but that the program itself would be adaptive and include a governance process for deciding future program components.

Mike Schlegel also mentioned that TJCOG recently sought funding from the National Science Foundation to develop a geospatial data sharing platform that could help expedite data gathering to inform future modeling and adaptive management efforts.

Local Efforts

Sarah said that TAC meetings henceforth will include an opportunity for members to report on local activities. Attendees mentioned the following:

- Durham is revising their stormwater ordinance to tighten load requirements
- Butner's comprehensive plan is complete and they are working on their Phase II program

- Raleigh has hired CH2MHill to work on quantifying baseline loads for the Falls NMS existing development calculation. Wake County may partner. This is something the UNRBA TAC should continue discussing, since the calculations could be a point of contention. The first challenge is defining “existing development.” Data requirements for that calculation may be substantial, so a regional approach could provide economies of scale. The sooner local governments enact Falls Lake new development requirements, the sooner they can begin calculating their baseline load (otherwise, the post-2006 baseline load will be a moving target).
- Wake County is reviewing its program for opportunities for improvements. UNRBA and TJCOG were solicited and gave suggestions.

UNRBA Board of Directors

Sarah passed out a list of current Board members with their phone number and email address (included here as an appendix).

The May Board meeting will be rescheduled due to a conflict with the NC Association of County Commissioners’ Legislative Day.

UNRBA Work Plan

Sarah said that she would amend the draft UNRBA FY11 Work Plan to reflect the fact that there will soon be a new stormwater assessment tool that may be of equal or greater interest than the Upper Neuse SET.

The group did not feel that it was time to start doing a UNRBA newsletter and suggested using other social media (e.g., Facebook) for communicating about initiatives of regional interest.

It is not looking likely that the UNRBA website will receive a substantial upgrade this year.

Sarah solicited volunteers to serve as TAC chair. This person should be available to attend Board meetings and to consult with Sarah about TAC meeting agenda development.

Sarah will add links to Upper Neuse local government websites to the Google Calendar [and to the UNRBA website under About UNRBA].

Future Potential TAC Meeting Agenda Items

- New NCSU stormwater accounting tool for Falls Lake Nutrient Management Strategy
- Calculating baseline loads for Falls Lake Nutrient Management Strategy
- Nutrient management and density, downtown redevelopment, and other community development-related goals

Appendix: UNRBA Board Member Contact Information

| UNRBA Member | Representative | Phone | Email |
|--|--------------------------------|----------------------|--|
| Town of Butner | | | |
| Director | Bill McKellar | (919) 575-4283 | wmckellarjr@nc.rr.com |
| Alternate | Thomas Marrow | (919) 575-3030 | tmarrow@butnenc.org |
| City of Creedmoor | | | |
| Director | Tim Karan | (919) 528-4525 | tkaran@cityofcreedmoor.org |
| Alternate | Tom Mercer | (919) 528-3332 x8 | citymanager@cityofcreedmoor.org tmercer@cityofcreedmoor.org |
| City of Durham | | | |
| Director | Cora Cole-McFadden, Treasurer | (919) 477-8995 | cora.cole-mcfadden@durhamnc.gov |
| Alternate | Reginald Hicks | (919) 560-4381 x256 | Reginald.Hicks@durhamnc.gov |
| Durham County | | | |
| Director | Becky Heron | (919) 489-4402 | beckymheron@nc.rr.com |
| Alternate | Ellen Reckhow | (919) 383-3883 | ereckhow@gmail.com |
| Franklin County | | | |
| Director | Harry Foy | (919) 269-0299 | harryfoy@bellsouth.net |
| Alternate | Scott Hammerbacher | (919) 496-2909 x 303 | shammerbacher@franklincountync.us |
| Granville County | | | |
| Director | Ronald R. Alligood | (919) 575-6480 | grancomrs@granvillecounty.org |
| Alternate | (vacant) | | |
| Town of Hillsborough | | | |
| Director | Mike Gering | (919) 644-8321 | mike.gering@hillsboroughnc.org |
| Alternate | Margaret Hauth | (919) 732-1270 X 86 | margaret.hauth@hillsboroughnc.org |
| Orange County | | | |
| Director | Pam Hemminger, Chair | (919) 942-2273 | phemminger@bellsouth.net |
| Alternate | Tom Davis | 919-960-3878 | tdavis@co.orange.nc.us |
| Person County | | | |
| Director | Jimmy Clayton, Vice-Chair | (336) 364-8520 | jimmyb60@embarqmail.com |
| Alternate | Heidi York | (336) 597-1720 | hyork@personcounty.net |
| City of Raleigh | | | |
| Director | Nancy McFarlane | (919) 996-3050 | nancy.mcfarlane@ci.raleigh.nc.us |
| Alternate | Kenneth Waldroup | (919) 831-6161 | Kenneth.Waldroup@ci.raleigh.nc.us |
| Town of Stem | | | |
| Director | Ellen Wilkins | (919) 528-1459 | Rejwilkins@aol.com |
| Alternate | (vacant) | | |
| Wake County | | | |
| Director | Stan Norwalk | (919) 363-4685 | stan.norwalk@wakegov.com |
| Alternate | Bettie Lou Ward | (919) 856-5566 | bward@wakegov.com |
| Town of Wake Forest | | | |
| Director | Margaret Stinnett | (919) 556-1948 | mstinnett@wakeforestnc.gov |
| Alternate | Scott Miles | (919) 554-6122 | smiles@wakeforestnc.gov |
| South Granville Water and Sewer Authority | | | |
| Director | Lindsay Mize | (919) 575-4068 | LMize@sgwasa.org |
| Alternate | Fred Dancy | (919) 575-4068 | FDancy@sgwasa.org |
| Soil and Water Conservation Districts | | | |
| Director | Danielle Adams (Durham County) | (919) 536-8999 | imani.asako@gmail.com |
| Alternate | Donnie Woodlief (Wake County) | (919) 556-4765 | dwoodlief@co.wake.nc.us |