

[Home](#) [About UNRBA](#) [About the Upper Neuse River Basin](#)
[Projects & Activities](#) [Meetings](#) [Major Issues](#) [Links](#)



Technical Advisory Committee
March 12, 2003

Prepared March 13, 2003

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.

Introductions and Meeting Objectives

The Technical Advisory Committee of the Upper Neuse River Basin Association (UNRBA) met at 1:30 P.M. on Wednesday, March 12, 2003 in the Triangle J Council of Governments conference room. Chris Dreps began the meeting by asking participants to introduce themselves. He then presented the meeting objectives:

- Elect Technical Advisory Committee Chairperson;
- Review Plan Endorsement Schedule;
- Approve Alternative Septic System Language;
- Review Nitrogen and Phosphorous Performance Standards; and,
- Review a Possible Tool for Performance Standards Oversight.

Meeting attendees are listed below:

Name	Organization	E-mail Address or Phone
Becky Heron	Durham County Commission (UNRBA Chair)	beckyheron@mindspring.com
Rick Bailey	Wake County	jrbailey@co.wake.nc.us
Matthew Winslow	Franklin County	mwinslow@co.franklin.nc.us
Trevor Clements	Tetrattech	trevor.clements@tetrattech.com
Scott Job	Tetra Tech	scott.job@tetrattech.com
Donna Jackson	City of Raleigh	donna.jackson@ci.raleigh.nc.us

Marti Gibson	City of Raleigh	marti.gibson@ci.raleigh.nc.us
Tom Konsler	Orange County	tkonsler@co.orange.nc.us
Mitch Woodward	NC Cooperative Extension	mitchell_woodward@ncsu.edu
William Sun	City of Durham	wsun@ci.durham.nc.us
Scott Miles	Town of Wake Forest	scott.miles@ci.wake-forest.nc.us
Watson Brown	City of Raleigh Planning	watson.brown@ci.raleigh.nc.us
Cam McNutt	NC Division of Water Quality	cam.mcnutt@ncmail.net
George Norris	NC Watershed Restoration Program	george.norris@ncmail.net
Paula Murphy	Person County Planning	pmurphy@personcounty.net
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@tjcog.org

UNRBA Update

Financial Update:

- 12 Local Governments have paid dues
- \$70,000 + collected for Fiscal Year 2003
- \$78,000 + budget for Fiscal year 2004

Grant Prospects:

- 319 Funding
- Albemarle-Pamlico National Estuary Program Demonstration Grant

Ellerbe Creek Watershed Management Plan

Chris reported that the plan close to completion. The NCWRP objective is to have the Ellerbe Creek Plan adopted this Spring.

Low-Impact Development

Chris has recently attended the statewide LID Summit. Chris will attend the Huntersville Training on Feb. 26.

Technical Advisory Committee Chairperson

TAC Nominated Perry Sugg as Chairperson.

Election of TAC Chairperson

The TAC nominated Perry Sugg at the last TAC meeting (12/10/02). The TAC voted for Perry Sugg as the new TAC Chair. Mr. Sugg will oversee all TAC meetings and will report TAC activities and decisions to the Board of Directors.

Plan Endorsement

Chris presented the definition of endorsement agreed upon by the Board of Directors on February 25. The UNRBA and its members:

- Believes the Plan is a valid analysis of water quality change;
- Believes the recommended management strategies can achieve the UNRBA's management goals;
- Agrees to work within our respective local jurisdictions to implement all or portions of the Plan's management strategies; and,
- Understands that endorsement does not commit any individual partner to implementing all of the Plan's specific recommendations.

Chris presented the status of specific recommendations and the deadline for Plan endorsement agreed upon by the Board. The plan should be endorsed by the end of April, at which point the UNRBA will present the endorsed plan to the Environmental Review Commission.

Beginning after endorsement, Chris will present the Plan to local decision-making bodies (some have requested that he begin before endorsement).

Alternative Septic System Recommendations

Chris presented the following recommended alternative language for approval:

***Proposed language change for UNRBA Draft Plan:
Septic Systems March 4, 2003***

Requirements for Individual Septic Systems. Adopt some or all of the following recommendations:

1. **Establish an inspections and maintenance program.** Three alternatives are offered:
 - a) Inspect septic systems every five years to ensure that they are functioning properly. On average, this would mean inspecting 20% of all septic systems in the County annually. Require that homeowners repair or replace failing systems. (Local Health Code may need to be revised to require this inspections and maintenance program).
 - b) Alternatively, use the results of Wake County's pilot on site wastewater conditions assessment to develop risk-based management strategies for septic systems. Risk-based strategies could be based on any of the following: system type, system location, system age, or system maintenance history.
 - c) Alternatively, inspect septic systems at the time of new home sale or home resale (new system inspections could be delayed by 6-9 months).
2. **Implement a GIS database of existing septic tank and well owners.**
3. **Develop a certification program for people who install and inspect septic systems, and require that a licensed person install all septic systems.**
(Note: the General Assembly is now considering the adoption of a state-wide certification program.)
4. **Provide operation and maintenance information packages to all homeowners who have septic systems by mail or at time of property purchase.**

Recommended Implementation: Local

This recommendation largely applies to Counties in terms of implementation administration.

Wake County just produced a homeowners package on well and septic operation (this is available electronically and can be customized)--contact NC State Cooperative Extension's Mitch Woodward (name and address included in these meeting notes).

Questions:

- What will we recommend for failing systems on old, small lots?
- How will jurisdictions deal with affordability issue?
- Grants to support?

Comments:

- 1c and 4 dovetail together; 1c requirement would provide mechanism for information transfer.
- 1a -- local jurisdictions are likely to be concerned with the cost (Chris responded that this was one of the major reasons for exploring/creating alternative recommendations).
- 1c -- could pose logistical problems (tracking home sales, staffing).
- Recommendation to add point in presentation to Board that implementation details (who pays, who administers) will be decided by each jurisdiction in its implementation strategies.

Consensus was reached that no major concerns exist with taking these recommendations to the Board of Directors.

Nitrogen and Phosphorous Performance Standards

Chris reviewed the recommended alternatives for zoning density changes or nitrogen and phosphorous performance standards. He focused the presentation on explaining the performance standards and their origin.

The nitrogen standard for urban areas (3.6 lbs/acre/year) is based on the Neuse Rules for nitrogen reduction. The N standard for rural areas (1.7 lbs/acre/year) is based on the amount of N expected to leave very low density conventional residential sites.

The phosphorous standards for urban and rural areas is based on results from our watershed model. The UNRBA set a "non-degradation" goal for Upper Neuse reservoirs. The phosphorous standard is based on the amount of phosphorous that new sites can collectively add to a watershed and still meet the non-degradation target. This calculation was made for each of the 28 subwatersheds.

"Site Evaluation Tool"

Trevor Clements and Scott Job presented a site evaluation tool (SET) that is currently being used in Huntersville to oversee their newly adopted Water Quality Ordinance. To view and download the ordinance, design manual, and Mecklenburg County's SET, go to: [Site Evaluation Tool - Huntersville Ordinance](#).

The tool allows site review staff to estimate the stormwater impacts of a particular site plan, including the effects that different configurations and best management practices will have on stormwater volume, nitrogen loading, phosphorous loading, sediment loading (TSS), etc. Such a tool could be used by the UNRBA or member governments to oversee stormwater management and performance standards.

Mr. Clements and Mr. Job explained the tool inputs, BMP inputs, and outputs. The group reviewed four example projects from Huntersville:

1. a high-density residential development,
2. a medium-density residential development,

3. a commercial development (w/ 73% impervious cover), and,
4. a school site.

On all sites, the tool showed that Stormwater Low-Impact Development techniques were possible. On all sites, nitrogen, phosphorous, total suspended solids, and overall surface flow will be significantly decreased. On residential sites, this can be done for much less money, despite strong design constraints that were placed on the sites. On the commercial site, the costs were similar to the costs of a conventional stormwater management pond, despite serious design constraints placed on the site. On the school site, costs for LID were higher, although serious constraints were placed on the site.

Overall, the TAC was very interested in the site evaluation tool. The group would like to pursue the development of our own version of the tool.

Tetra Tech proposed that the following steps are necessary for developing a tool for the Upper Neuse:

1. Calibrate land use event mean concentrations to the Upper Neuse
2. Finalize BMP menu and BMP removal efficiency assumptions
3. Decide on hydrology target vs. educational information
4. Modify SET programming (incorporate results from steps 1-3, N & P targets, show groundwater & septic total phosphorous and total nitrogen loads separate from surface load targets)
5. Update model documentation and SET user guide

The UNRBA governments interested in this model could also pursue other means of producing our own version of the SET. Potential funding sources: 319 grants, APES grant, or local government funding. Likely cost: \$20,000 if done by consultant, potentially less if we take an active role in the project.

Next Meeting

The next TAC meeting is scheduled for Thursday, April 10 at 1:30 p.m. at the TJCOG office.

The meeting adjourned at 3:30 p.m.