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**Task Group
December 3, 2002**

Task Group on Monitoring and Enforcement Issues

Prepared December 4, 2002

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.

The Upper Neuse River Basin Association (UNRBA) and representatives from County Health Departments met at 1:00 P.M. on Tuesday, December 3, 2002 in the Triangle J Council of Governments conference room. The objectives of the meeting were to:

- Introduce the participants to the Draft Upper Neuse Watershed Management Plan;
- Discuss the Draft Plan's recommendation for septic systems;
- Discuss alternatives to the current recommendation; and,
- Receive guidance from the group for presenting the recommendations to the UNRBA Technical Advisory Committee and Executive Committee for approval.

Meeting attendees are listed below:

Name	Organization	E-mail Address or Phone
Ellen Reckhow	Durham County (UNRBA Board)	ereckhow@aol.com
Jimmy B. Clayton	Person County (UNRBA Board)	jimmyb31@juno.com
Derek Day	Person County Coop. Extension	derek_day@ncsu.edu
Tom Konsler	Orange County Environmental Health	tkonsler@co.orange.nc.us
Ron Holdway	Orange County Health Department	holdway@co.orange.nc.us
Wallace Vaughan	Granville-Vance Environmental Health	919-693-2688
Cam McNutt	NC Division of Water Quality	cam.mcnutt@ncmail.net

Mike Hoover	NCSU	mike_hoover@ncsu.edu
Robert Brown	Durham County Health Department	rbrown@ph.co.durham.nc.us
Chris Dreps	UNRBA	dreps@tjcog.org

Introductions and Meeting Objectives

Chris Dreps began the meeting by asking participants to introduce themselves. He then presented the meeting objectives. He began by distributing a handout and an executive summary of the Draft Plan. The Draft WSMP is available on the UNRBA website (www.unrba.org).

Background on Septic Systems in the Upper Neuse

Currently, there are an estimated 30,000 septic systems in the Upper Neuse Watershed. Tetra Tech and CH2Mhill have estimated that the amount of wastewater generated by these systems is equivalent to that treated by the Butner and Hillsborough sewage treatment plants combined.

The table below presents the number of people, by subwatershed, on septic systems within the Upper Neuse River Basin (Tetra Tech 2002).*

Subwatershed (NRCS ID of Hydrologic Units--witin basin 30202010)	Estimated Number of people on septic systems for the Year 2000
10010	2,740
10020	2,385
10030	928
10040	1,697
10050U	1,250
10050L	902
20010	2,241
20020	3,325
20030	1,678
20040U	2,810
20040L	2,909
30010 (10a1)	540
30010 (10a2)	524
30010 (10b)	471
30020U (11a1)	1,313

30020L (11a2)	1,541
30020L	875
30030	7,495
30040	9,738
30050	2,210
40010	1,071
40020	531
50010	5,646
50020	5,888
50030	3,674
60010U	
60010L	2,600
60020	2,719
65010	1,999
65020	2,277
65030	11,857
65040	6,584
Total	92,517

* This data is based on the growth modeling of data from the 1990 Census.

U= Upper

L= Lower

Background: Draft Upper Neuse Watershed Management Plan Recommendations

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 are Raleigh, Durham (City and County), Person County, Orange County, Hillsborough, Granville County and Creedmoor. Staff members from these governments have made comments on the recommendations, although not all Health Department staff had seen the septic system recommendation prior to today's meeting.

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 septic system recommendation (p. 46) is listed below.

Requirements for Individual Septic Systems: Inspect septic systems every five years to

ensure that they are properly functioning. 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.)

Recommended Implementation: Local

Mr. Dreps presented this recommendation and the local staff comments to date. The comments are summarized below:

- Some feel that we are understating the problem of aging systems and their potential for water contamination.
- Durham Environmental Health would like to have more data linking documented stream degradation to onsite sewage treatment.
- 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.

Group Discussion

The group briefly discussed the above comments from local governments. Some additional concerns include:

1. The need for better understanding of the problem. What is the level of the threat? Which systems pose a threat? Where are the threats? What difference do inspections and maintenance make?
2. Are there better ways to deal with the problem than regular blanket inspections? There was group sentiment that this is practically impossible because of the great level of effort that it would require. In addition, the benefits are under question until we can begin to answer the questions in number 1.

The group discussion yielded several related concerns, including that we could be underestimating the water quality problems posed by septic systems to certain areas, the need for more data, the potential for negative public reaction to a 5-year inspection requirement, high costs and low benefits, how would we follow up inspections, and the need for funding sources.

The group discussed several possible strategies:

- Sending out educational materials/maintenance reminders (such as Durham County Environmental Resources);
- Education and certification for inspectors, permitters, installers of septic systems (i.e. testing and certification programs such as the National Sanitation Foundation and the State Certified Operator Program);
- Risk-based strategies for assessment and management (some areas are more sensitive for water quality than others, and we need to assess and manage for protecting those areas);
- Monitoring all sand filters (Orange County monitors these on a 3-year basis--they bill for the service but admit to difficulties with collection of the charge);
- Data needed to back up recommendations (i.e., Wake County's current approach);
- Utility for septic systems;
- Targeted monitoring (use UNRBA basinwide monitoring to analyze water quality in watersheds of specific concern such as high septic system density);
- Specific legislation for our area such as the Albemarle Management Program that helps landowners deal with management and repair costs;
- Requiring delayed inspections within 6-9 months of a new home sale (home still under warranty)--one problem with this approach is: Who would do the inspection?;
- Requiring inspections at the time of home resale (consumer protection issue);
- Mailing operator's permits to homeowners (many stay in the hands of the builders under current approach); and,
- Requiring hook-up to municipal systems at time of sale (where available).

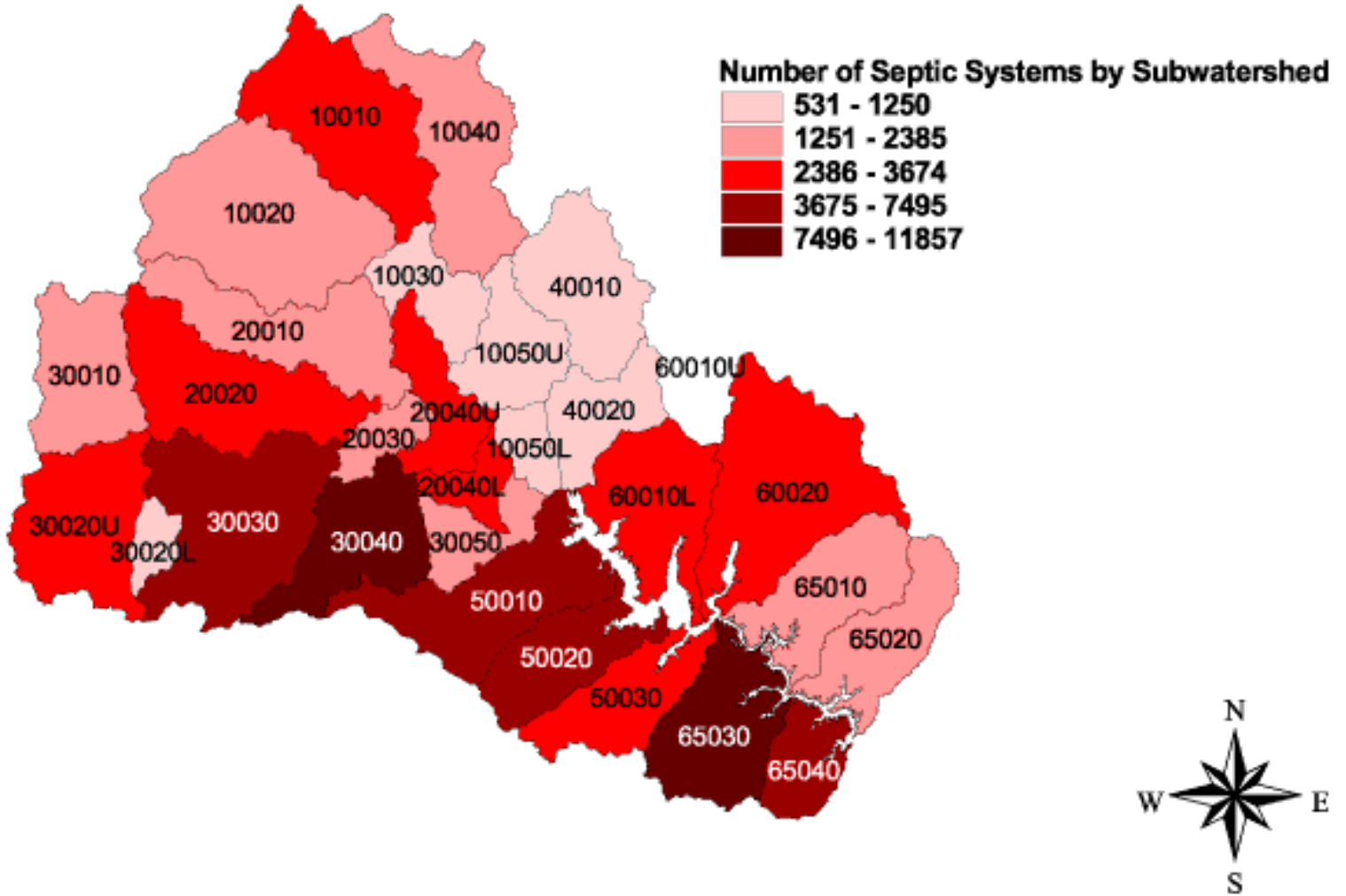
Potential funding sources:

State revolving loans funds. Valerie Nelson oversees these funds and the state certified operator program. Chris will contact Ms. Nelson for further information.

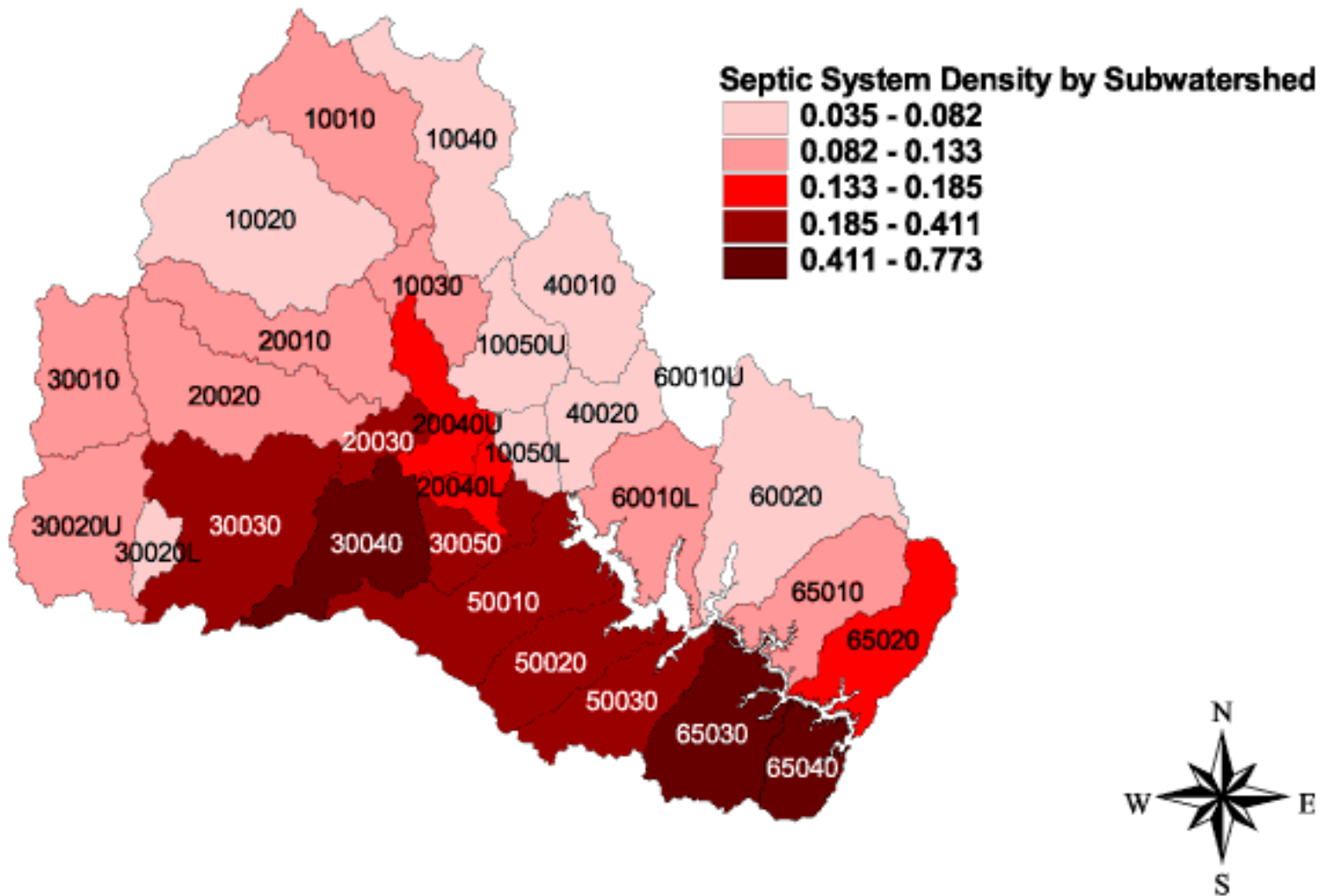
Follow-up information

I have attached two figures for your information. These figures are maps of the information presented in the table above. I hope these maps spur some thought.

Number of septic systems per subwatershed



Septic system density (per acre)



Next steps

On December 10, the TAC will review the above strategies put forth by this group and recommend that I follow up (investigate with the potential for changing the recommendation) any alternatives of interest to the group. With the TAC's guidance, I will propose changes to the Draft Plan (which I will report to this group). These changes will be presented to the Board in a timely manner to provide feedback before their next meeting, to be held in February.

The meeting adjourned at 3:00.