

NEUSE RIVER BASIN REGIONAL COUNCILWayne Center
Goldsboro, NCJuly 26, 1996
9:30 am**AGENDA**

9:00 am	Executive Session	Officers and Staff
9:30 am	Call to Order, Welcome, Self-Introductions	Chairman Wolfe
9:40 am	Approval of Minutes	Chairman Wolfe
9:45 am	Consent Agenda Resolutions Amendments to By-laws	Chairman Wolfe
10:00 am	Program Presentation - GIS	Center for Geographic Info & Analysis
11:00 am	Legislative - Public Affairs Update	Margaret Holton
11:15 am	Report on EMC/Soil-Water Meetings	
11:30 am	Breakout Session: Research & Information Legislative Liaison Public Affairs	Dr. John Costlow Margaret Holton Caroline Parker
12:00 noon	Reports from Subcommittees	Dr. John Costlow Margaret Holton Caroline Parker
12:30 pm	Public Comment and Discussion	
12:45 pm	New Business	
1:00 pm	Adjourn	

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To	Guy	From	John
Co.		Co.	
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May 20, 1996

Neuse River Basin Regional Council
Summary of Issues from Meeting Held on
May 17, 1996
Wayne Center
Goldsboro, North Carolina

1. Cleaning Up the Neuse River

Provide financial aid to help farmers and cities reduce nutrient pollution to the Neuse.

Solutions:

Public Workshops - Farmer Workshops and Public Hearings to be held at N. C. Cooperative Extension Service.

1. Farmers required to take soil samples in fields to tell them precisely what and how much fertilizer they need to use in each location.
2. An agriculture agent can visit fields to tell the farmers when to spray for pests. Farmers can spray too early and don't kill the worms or they can spray too late and lose the crop. Some counties and farmers have employed agriculture consultants.
3. No-til land as much as possible.
4. Plant a cover crop if land has been tilled for the winter to stop run off.
5. Stop all cultivation within five feet of all ditches.

Questions For Research:

- ** What is the contribution of lawn/golf course fertilizer in various parts of the basin?
- ** George Wolfe (Chairman of the Neuse River Basin Regional Council) reported for the members from Person County who had determined that Person and Wake counties were approximately equal in terms of agricultural acreage, but that Hoke County had a ten times higher rates of sales of 10-10-10 fertilizer.

He felt that this pointed to a significant amount of nitrogen deposition due to urban runoff as opposed to agricultural non point sources.

2. Effective use of money (spend it on high priority issues). Assurances that "cleaning up the Neuse" is a priority for the state and that money and resources are dedicated to this effort.
3. Division of Environmental Management estimated total nitrogen is 61% agriculture and total phosphorus is 57% agriculture.
4. Homeowners use of fertilizers and pesticides (nutrients). Create an action plan to address homeowners' contribution of nutrients to surface waters.
5. Expanding development creates additional demand on the natural resources. Manage population growth and expanding animal operations in the are near the Neuse.
6. What has been the amount of population and animal operation increase in the last ten years near the Neuse River?

Improving Animal Waste Management

1. Eliminate straight-piping of raw-sewage from cities, towns, and hog lagoons into our rivers and streams from all sources.
2. Check branches, ditches and streams near animal operations and sewers for pollution.
3. Limit the amount of animals for each lagoon.
4. Increase statewide water quality monitoring from animal operations and sewers which double the amount of water going into the Neuse.

Sondra Ipock Riggs
Neuse River Basin Council Member - Public Relations

LEGISLATIVE REPORT...July 26, 1996

NEUSE RIVER BASIN REGIONAL COALITION

The 1996 NC LEGISLATIVE SHORT SESSION adjourned on June 21 without a budget.

Governor Jim Hunt called the Legislature back to work on July 8, 1996. The last two weeks have been a gridlock as it was before. The House changed its rules and proposed two different budgets, the first one a "time-sensitive budget on Education matters, and a second one on other things such as the Environment. Finally a vote on Tuesday, July 23 opened up some rules so the two budgets of the House and the Senate Budget could be considered. They sent the two budget bills to separate conference committees, which could start work on Wednesday. They have spent nearly \$700,000 in July getting to this point.

The Short-session budget is to supplement the two-year budget passed in the previous year. CITIZENS ARE GREATLY CONCERNED since our Educational Needs as well as protecting the Environment are at a critical stage for our state.

SHORT Review of Senate Bill 1217--AN ACT TO IMPLEMENT RECOMMENDATIONS OF THE BLUE RIBBON STUDY COMMISSION ON AGRICULTURAL WASTE.

Technical Assistance including plans for Animal Waste Management Systems and operations reviews will be provided by the Division of Soil and Water Conservation.

Permitting, inspection, and enforcement will be vested in the Division of Environmental Management, now the Division of Water Quality.

Animal operations will no longer be exempt from special orders. SB 1217 goes beyond the recommendations of the Blue Ribbon Commission by requiring hog houses and lagoons to be setback at least 500 feet from property lines.

THE BUDGET for each Agency for enforcement is in limbo until the Legislature passes this year's budget. (Note that the permit fees will not cover the money needed.)

SB 1128---CLEAN WATER MANAGEMNT TRUST FUND

This bill is also tied up in budget negotiations with the Senate asking for \$60 million and the House only \$30 million(they prefer putting \$\$ into savings accounts.)

Margaret Halton

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Neuse River water quality has declined over the last two decades

The Neuse River System has experienced alarming increases in:

- Nutrient (N & P) loading rates
- Size and duration of nuisance algal blooms
- Hypoxia (low oxygen) and anoxia (no oxygen)
- Fish kills
- Declining commercial and recreational fisheries

These events have led to a heightened public awareness

Managers and regulatory agencies are under increasing pressure to find solutions to these problems

As scientists, our task is to provide sound, scientific data and recommendations for formulating and implementing effective management strategies



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Most of the problems in the Neuse are linked to nutrient inputs and phytoplankton responses

More nutrients > more phytoplankton > eutrophication

We know very little about:

- Selective effects of different types of nutrients on phytoplankton species
- How the timing of nutrient loading regulates phytoplankton growth
- How environmental conditions (i.e., weather) influence the formation and persistence of nuisance algal blooms
- The relationship between algal blooms and hypoxia/anoxia
- Effects of eutrophication on fisheries



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The Neuse River Bloom Project is a coordinated research program designed to address fundamental questions about phytoplankton-nutrient interactions

Principal Objectives:

- To understand how the types, amounts, and timing of nutrient inputs influence nuisance algal bloom formation and proliferation.
- Major emphasis on mechanisms and processes
- Ultimate goal is to develop a process-based ecological model that can be linked with hydrological models to evaluate a broad range of nutrient management strategies.
- Provide technical expertise in support of monitoring efforts by state and federal agencies.

Research support provided by USDA, Sea Grant, NC DEHNR, and UNC WRRI



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The Neuse River Bloom Project

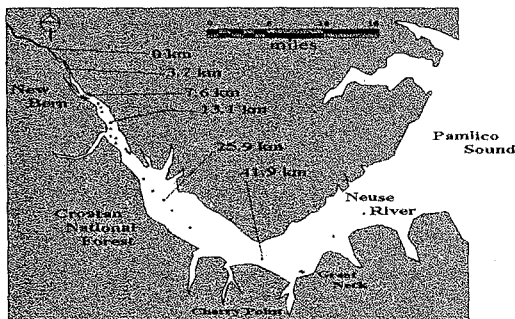
- Started in January 1994....data collection is still underway
- Involves investigators and students from several universities and governmental agencies
- Sampling program consists of:
 - a) Biweekly (weekly) sampling at 8 stations on the Neuse River
 - b) Mesocosm experiments to evaluate nutrient effects
 - c) State of the art instrumentation for examining phytoplankton physiology

Graphical summary of conditions and events in the Neuse River since January 1994

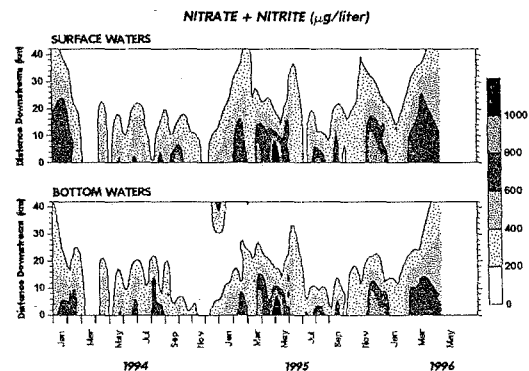


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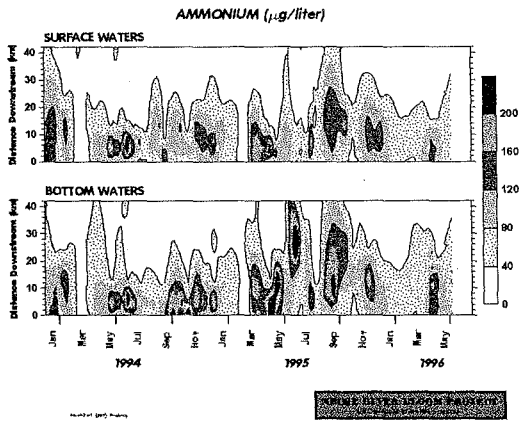
The Neuse River, North Carolina



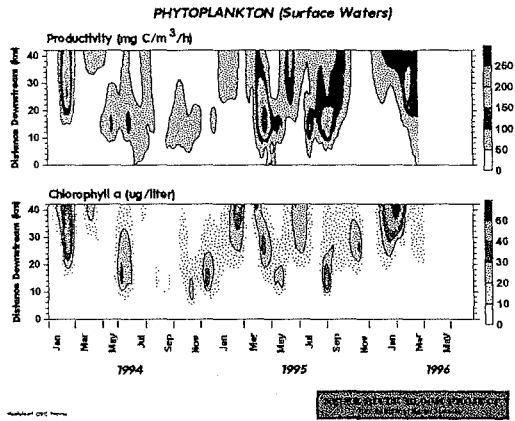
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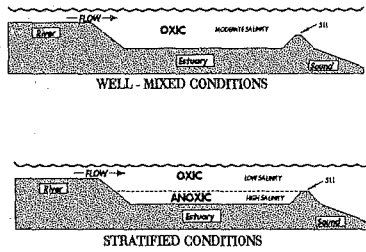
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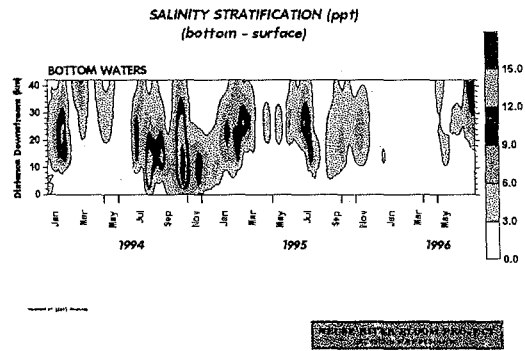
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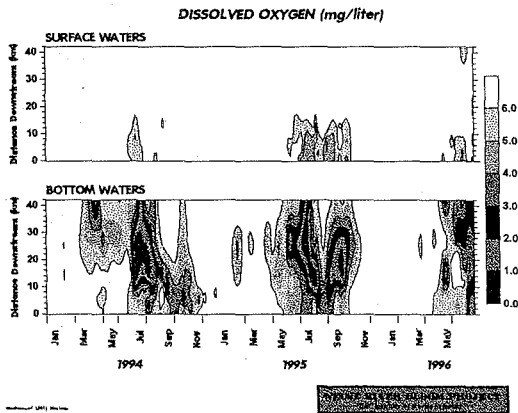
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NEUSE RIVER BLOOM PROJECT

NEUSE RIVER BLOOM PROJECT

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SUMMARY

- Nutrient inputs (N) are used rapidly by phytoplankton, resulting in excessive growth, algal blooms, and eutrophication
- Are a variety of *secondary effects* (e.g., hypoxia/anoxia, fish kills, scums)
- System response depends on environmental (meteorological) conditions
Difficult to predict bloom events
Always has the potential to rapidly deteriorate
- Most feasible solution to the problem is to reduce nutrient (N) inputs
- Our research products should provide insights into the critical factors that must be considered in the development of effect nutrient management strategies

NEUSE RIVER BLOOM PROJECT

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Neuse River Bloom Project Web Pages:
cheers.stpt.usf.edu/~johna/nrbp.html (*temporary*)
www.marine.unc.edu (*1 August 96*)