NEUSE RIVER BASIN REGIONAL COUNCIL
Wayne Center
Goldsboro, NC

November 1, 1996
9:30 am

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9:00 am Executive Session **Executive Committee**

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AGENDA

9:30 am	Call to Order & Welcome	George Wolfe
9:35 am	Self-Introductions	All
9:45 am	Acceptance of Minutes	George Wolfe
10:00 am	Discussion: Annual Report Clean Water Management Trust Fund Water Quality Update *1997 Update to Neuse Basinwide Plan *Nutrient Sensitive Waters Status Report	All
12:30 pm	Working Lunch	
1:30 pm	Public Comment & Plans for Next Meeting	George Wolfe
2:00 pm	Adjourn	

October 22, 1996

MEMORANDUM

TO: Neuse River Basin Regional Council Members

FROM: George Wolfe

SUBJ: Next Meeting

Enclosed are the agenda and supporting documents for our upcoming Neuse River Basin Regional Council meeting, to be held on November 1, 1996 in Goldsboro, at the Wayne Center. As you can see, the meeting will begin at 9:30am (9:00 am for the Executive Committee) and will continue through lunch.

You may notice that there is some departure from our regular meeting format. This is due, in part, to the suggestion expressed by members of the Executive Committee for devoting this meeting to discussion of the topics included on the agenda. This will allow us the opportunity to regroup ourselves and to reestablish our role and responsibilities since interruptions caused by Fran.

I hope to see you November 1, and thank you in advance for your participation and commitment.

Attachment A

PROPOSED REVISED SCHEDULE for NEUSE NSW RULE MAKING

Feb. 8, 1996	Permission received from EMC to submit "subject notice" for "concept document." WQC approved this request at their February 7 meeting.
Mar. 14, 1996	EMC reviewed rule language reflecting original "concept document" proposal and proposed alternatives. EMC approved alternatives for inclusion in concept document and for review at public meetings.
Mar. 22, 1996	Filed Notice of Rule-Making Proceeding (subject notice) with Dept. rule-making coordinator (RMC). Will be published in Apr. 15, 1996 NC Register. Comment period to extend through June 14, 1996.
May 6,8, 1996	Public meetings to be held in New Bern and Smithfield. New Bern Armory and Smithfield Moose Lodge, 10am-12:30pm; 2pm-4:30pm; and 6pm-8:30pm.
June 14, 1996	Comment period ends for subject notice.
July 11, 1996 ✓	Request permission for EMC to proceed to rule-making and to hold public hearings on proposed rules.
Aug. 15, 1996	Text of rules published in NC Register. Public info package ready.
Aug. 30, 1996	Earliest date for public hearing. Sept. 9 ... Raleigh 10 ... Goldsboro 11 ... New Bern 12 ... Kinston
~~Sept.~~ Nov., 1996	*Hold hearings for proposed rules.
~~Oct.~~ Dec. 14, 1996	End of comment period for proposed rules with substantial economic impact. Statute requires 60 days from published notice date.
~~Nov.~~ Feb. 14, 1996	Request the EMC adopt rules at special meeting. November is the final date for adoption to stay on schedule for Rules Review Commission (RRC) review and submittal to the General Assembly.
Dec. 19, 1996	RRC considers and approves rule (3rd Thursday of month). - must approve b/f Gov. can issue Exec. order
Jan. 30, 1997	RRC files rule with General Assembly
Apr. 1, 1997	Earliest date rules become effective (31st legislative day where a legislative day=Monday through Thursday). This estimate has a couple of extra days.

Maybe April 1

? ↓ to EMC

GA take it up in '98 Earliest rules could become effective Aug. '98

Clean Water Management Trust Fund Fact Sheet

What is the Clean Water Management Trust Fund?

The Clean Water Management Trust Fund was created by the North Carolina General Assembly in August 1996 to clean up pollution from the state's surface waters and to protect and conserve those waters that are not yet polluted. The Trust Fund is a nonregulatory program; money under the fund will finance projects that are selected from among those received.

How is the Clean Water Management Trust Fund Staffed?

The Clean Water Management Trust Fund has a Board of Trustees comprised of 18 members appointed by the Governor, President Pro Tempore of the Senate and the Speaker of the House of Representatives. All members must be knowledgeable in acquisition and management of natural areas, conservation and restoration of water quality, wildlife and fisheries habitat and/or environmental management.

The Board of Trustees will appoint an Executive Director, whose responsibility is to supervise the activities of the Trust Fund. In addition to the Board of Trustees and the Director, the legislation created a Clean Water Management Trust Fund Council, to advise the Trustees with regard to allocations from the Fund. The Council consists of the Commissioner of Agriculture, the Chair of the Wildlife Resources Commission, the Secretary of DEHNR and the Secretary of the Department of Commerce.

Who is Eligible to Apply for Assistance?

State agencies, local governments or other political entities in the state, and nonprofit corporations, whose purpose is to conserve, preserve, and restore North Carolina's environmental and natural resources.

What Types of Projects Must be Submitted?

Money from the Clean Water Management Trust Fund is available to fund any of the following: (1) to acquire land for riparian buffers; (2) to acquire conservation easements or other interests in real property; (3) to coordinate with other public programs involved with lands adjoining water bodies; (4) to restore previously degraded lands to reestablish their ability to protect water quality; (5) to repair failing waste treatment systems (if an application was not approved during the last review cycle of the Clean Water Revolving Loan and Grant Fund; or the repair is a "reasonable" remedy for resolving an existing waste treatment problem); (6) to repair and eliminate failing septic tank systems, to eliminate illegal drainage connections and to expand waste treatment systems if the system is being expanded as a remedy for failing septic tank systems or illegal drainage connections; (7) to improve stormwater controls and management practices; and, (8) to facilitate planning that targets reductions in surface water pollution.

How Much Money is Available to Fund Projects and How Much Money Must Applicants Have to Finance Projects?

The Clean Water Management Trust Fund shall have 6.5% of any unreserved credit balance remaining in the General Fund at the end of the fiscal year. For the current fiscal year, this amounts to several million dollars.

The Clean Water Management Trust Fund Board of Trustees may require a match of up to 20% of the amount of the grant awarded. This grant match may be waived pending the guidelines adopted by the Board of Trustees.

Speech to the North Carolina League of Municipalities Conference

Introduction:

* I am pleased to be here today to talk about the Clean Water Management Trust Fund. Before I discuss this fund specifically, I would like to briefly mention the political impetus that made passage of the fund possible.

* All you need to do is pick up a newspaper and it is obvious that cleaning up our state's water quality is one of the most important challenges at the moment. The problems of the Neuse River and our growing swine industry catapulted the subject of water quality to the forefront of news and the minds of the General Assembly this year.

* As you will recall, several million fish were killed on the Neuse River in the Summer of 1995, due in part to a toxic substance called physteria. The high level of nutrients in the Neuse River may also be a cause. Nutrients, in overabundance and under favorable conditions, can stimulate the occurrence of algal blooms, which deplete the water column of dissolved oxygen and contribute to serious water quality problems.

* In addition to the Neuse, the problems of the swine industry have contributed to the attention on our state's water quality. In North Carolina, the swine industry has changed significantly in recent years moving from the small farm to the large factory farm. Currently, fewer than 10% of the hog farmers raise almost 90% of the pork. In the last three years, the total number of swine in the state has grown from 4.5 million in 1993 to 8.5 million in 1996.

* This huge growth combined with the changed structure of the industry have raised serious concerns about the environmental sustainability of the industry. Environmental concerns have centered on water quality problems. Hog waste is typically stored in lagoons -- as you may know -- large outdoor pits which hold the liquid waste. The waste is then broken down by bacteria and sprayed on croplands and pastures. Scientists have shown that there is ground and surface water contamination due to the stored waste and runoff from waste which is sprayed on fields.

* Lagoon failures have become a related environmental threat, heightened by several spills in the summer of 1995, including the state's worst spill on June 21, 1995 at Oceanview Farms in Onslow County. The eight acre lagoon broke and sent 22 million gallons of swine waste into the New River and opened up debate about the adequacy of current animal waste technology.

* The combination of problems with the Neuse River and the animal waste situation led lawmakers to discuss long term solutions to our state's water quality pollution when the Short Session started in January 1996. Commissions and committees such as the Environmental Review Commission, the Environmental Management Commission, the Senate Select Committee on River Water Quality and Fish Kills and the Blue Ribbon Commission held several meetings to generate solutions for our state's water quality problems.

Clean Water Trust Fund

* The Clean Water Trust Fund was publicly birthed during these legislative deliberations by Senator Marc Basnight, the President Pro Tempora from Dare County, North Carolina. The version of the legislation that was ultimately passed did not change from its original draft, in part due to the legislative negotiations that must have been made to ensure its passage.

* The legislation states that the purpose of the Clean Water Trust Fund is to " clean up pollution from the state's surface waters and to protect and conserve those waters that are not yet polluted". The Trust Fund is a nonregulatory program -- money under the fund will finance projects that are selected from among those received by the Board of Trustees, the oversight group in charge of administration of the grants.

* I have distributed a Clean Water Trust Fund "Fact Sheet", which should answer most of your questions about how the trust fund is staffed, which organizations are eligible to apply for assistance and what projects may be funded.

* I would like to highlight a few issues from the fact sheet for your attention. You will notice that municipalities and local governments are eligible to apply for assistance. In particular, repair of failing wastewater treatment plants and septic tanks are eligible for funds in addition to projects which would improve stormwater management controls. These projects will receive priority for funding.

* Municipal officials may be asked by residents to apply to the fund on their behalf. Individuals are not permitted to apply for money, thus they may seek your intervention to fund a project. You should review these requests carefully, since there is limited resources available.

Department of Environment, Health and Natural Resources Perspective on the Fund

* To date, no appointees have been made to the Board of Trustees; therefore, no projects may be submitted until this Board, an Executive Director and appropriate staff are hired. Nominations have been received by the Governor's Office, but there is no indication on when appointees will be named.

* The Department administers a number of programs which are charged with the protection of water quality and we have internally debated how this Fund will operate in conjunction with our many programs. The most important of these programs -- and one which I am sure you are all familiar with -- is the basinwide management program. The basinwide management is a new watershed-based water quality management intended to improve the efficiency, effectiveness and consistency of the state's water quality protection program. The Division of Water Quality applies this concept to each of the 17 major river basins in the state as a means of better identifying water quality problems, developing appropriate management strategies, maintaining and protecting water quality and aquatic habitat, assuring equitable distribution of waste assimilative capacity for dischargers and improving public awareness in the management of the state's surface waters. DEHNR could help identify appropriate projects for funding under the

CWTF through the basinwide management approach. However, at this point, we must wait until the appointments are made and are asked for assistance.

* I will be glad to entertain any questions about the Clean Water Trust Fund at this time.

Neuse River Basin Public Hearings

November 12, 1996, 7:00 p.m., Raleigh
State Highway Bldg. Auditorium, 11 S. Wilmington St.

November 14, 1996, 7:00 p.m., New Bern
Craven County Courthouse, 302 Broad St.

November 19, 1996, 7:00 p.m., Goldsboro
Goldsboro High School Auditorium, Herman & Beach St.

November 21, 1996, 7:00 p.m., Kinston
J. H. Sampson Elementary School Auditorium
606 Tower Hill Road

The Jones County Comissioners encourage everyone to attend these hearings and to take this opportunity to express your views concerning the proposed rules and regulations for farmers and landowners in the Neuse River Basin, which includes the Trent River in Jones County and how it will affect most farmers and landowners in Jones County. These proposed rules and regulations may require 50 ft. buffer strips beside all blue line ditches and secondary ditches that are marked on maps by the DWQ. Many farms may lose up to 1/3 of their cropland if these rules and regulations are passed by the state of North Carolina. This means you as a farmer would stand to lose 1/3 of your income if your ditches and secondary ditches are marked with blue lines on their maps. You would also have to bear the cost of putting in these buffer strips and maintain them in a vigorous state. Also, the amount of nitrogen you may apply on your farmland would be reduced by 30% to meet nitrogen goals set by the Division of Water Quality. This will affect property and homeowners because when the farmland is taken out of production, it will reduce the value of farmland which will pass higher taxes on to property and homeowners.

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October 25, 1996

Proposed Rules and Regulations for the entire Neuse River Basin

Areas of concern by the Agricultural Community

The proposed rules and regulations for the Neuse River Basin counties are not practical for most farms due to the current blue line determinations. The current blue lines cover many regular farm drainage ditches and other manmade drainage conveyances which in most cases should not be marked as blue line water bodies.

We feel more input into these proposed rules and regulations should be made by the Agricultural Community with farmers and other Agricultural Community members to have a fair input. In this way, the rules and regulations would do the necessary job for the Neuse River Basin without putting unfair and costly rules and regulations into effect on the farming community. These proposed rules and regulations would in some cases make it impossible for some farmers to continue farming due to the high cost of implementing the proposed rules. Another future loss will be farm income when cropland is converted to buffer strips and loss of tax money received by counties when this productive land is reclassified as nonproductive. This will cost rural counties much needed tax revenue.

Buffer Strips - land taken out of production by the proposed 50 feet buffer strips would have to be transferred on tax books from productive to nonproductive land. In many cases the estimated value of this land may decrease from $1,200.00 value per acre to $50.00 value per acre. The rural counties affected most by these rules and regulations would lose the difference in tax revenue, which would place a hardship on most of these counties. The cost to put in buffers per 100 acres may be $4128.52. On some farms, income loss and maintenance cost a year may be $69.58 per acre for every acre of cropland converted to buffers yearly.

Jones County is a rural county and depends greatly on cropland for a majority of tax revenue. Jones County and other counties should be paid yearly for any land required by state law to be put in buffers. Lost county property tax revenue should be replaced by state funds yearly. The payment by the state to counties should be based on the difference between the old and new appraised value at each counties' current tax rate. Farmers or landowners should be compensated at fair market value for any land required by state law to be put into buffers. If buffers are required, funding for a 75% cost share program for construction, planting and maintaining of required buffer strips should be available to farmers .

Is the State of North Carolina going to pick up this decrease in tax revenue that the counties will lose due to the implementation of these proposed rules and regulations as they relate to blue line water bodies (ditches)? In many cases these field ditches or manmade conveyances should not be classified as blue line water bodies. There needs to be a new study of the classified blue line water bodies that are currently marked on Topo Maps used by State Agencies. Some maps we have seen are over 14 years old and if these are the maps being used, then we need new studies made with local input by farmers and the Agricultural Community into the classification of these blue line water bodies which the Agricultural Communities have been involved with over the years. Also, the proposed rules and regulations affecting farmers and the Agricultural Community have a proposed implementation period of 2 years while the other urban and city communities have 5 years to implement their rules and regulations. We feel this is discrimination against farmers and the Agricultural Community. We believe Agricultural land should be given the same 5 years to implement their practices just as point sources.

Nutrient Management Options - The nutrient management options do not account for the planning and compliance costs imposed on farmers by the regulations. Planning cost are calculated as $8 per acre charge for preparing a Nutrient Management Plan. The estimated cost of planning time for the farmer is $5 per acre every 3 years. Water control structures by one farmer on a 100 acre tract of land is estimated to be $1500 installed for one water controlled structure. We recommend a 75% cost share program for installing, maintaining and operating water control structures and removing sedimentation from the ditches affected by water control structures, along with 75% cost share for the writing of Nutrient Management Plans and farmer's planning and supervision time of working with the Nutrient Management Plan every 3 years.

Farmers need the option of many different crops, grasses for pastures and other forage crops to allow more balance and even distribution of nutrients throughout the year. To allow more different crops, grasses for pastures and other forage crops, more studies need to be made by the Universities to determine the actual nutrient requirements to grow these new crops.

Cover crops are a Best Managment Practice that should be an option to the required buffers. Research has found nitrogen reduced in the soil by 50% by the uptake of cover crops. Cost share assistance should be made available to promote cover crops in the Neuse River Basin.

A very large portion of the plan for reduced nitrogen discharges to the Neuse River Basin is being placed on farmers in the basin. Agricultural land should not be grouped with small municiplalities; DOT highway drainage areas in streets, roads and highways; forest land; and golf courses. Farmers are being asked to reduce nitrogen discharges 30% per year which will have a great effect on the production of cropland in the Neuse River Basin. Before these proposed rules and regulations are implemented we need to know, scientifically, exactly where the nutrients are coming

from that enter the Neuse River Basin. A fair reduction of nitrogen could be implemented in the new rules and regulations but not until we really know with current studies the actual sources of Nitrogen entering the Basin. We propose that the Division of Water Quality separate all land uses and users and assign 30% decreased loading requirements on each specific category. We propose Agricultural land should be defined as only land that farmers are applying nutrients for commercial production practices.

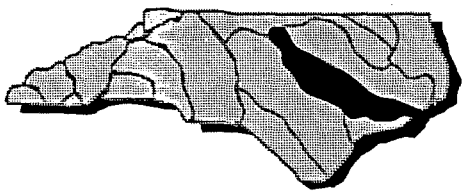
Your consideration of the concerns mentioned in the above letter by farmers and Agricultural Community will be appreciated by the Jones County Commissioners.

Jones County Commissioners

NUTRIENTS AND THE NEUSE: PUBLIC HEARINGS SET FOR NOVEMBER

Public hearings will be held next month on proposals that could help to improve the health of the Neuse River Basin by the year 2001.

These proposals by the state's Environmental Management Commission (EMC), are designed to achieve a goal of 30 percent reduction in nitrogen loading to the Neuse River estuary by the year 2001. The strategy will center on the use of point source discharge requirements, stream buffers or equivalent Best Management Practices (BMPs), stormwater management, nutrient management, and animal waste management along the 200-mile stretch of the Neuse River and its tributaries.



The public hearings will be held in Raleigh on November 12, New Bern on November 14, Goldsboro on November 19, and Kinston on November 21. Details on the hearing locations and dates are included at the end of this announcement.

The hearings will enable all persons to voice their concerns or support before the EMC makes a decision on the proposals.

BACKGROUND

In 1988, the EMC classified the entire Neuse River Basin as Nutrient Sensitive Waters (NSW). That action, which allows state government to control nutrient pollution that enters the river, was in response to deteriorating water quality of the freshwater sections between Kinston and New Bern.

With this new nutrient management strategy, the EMC dealt with the control of phosphorus and nitrogen in the Neuse River. The phosphorus detergent ban and controls on point sources were successful-- phosphorus loading to the Neuse decreased.

However, the water quality problems persisted, especially below New Bern. Fish were killed by the millions from New Bern to Minnesott Beach in the summer and fall of 1995. Low oxygen concentrations near the surface and algal blooms were common occurrences along that stretch of the Neuse River.

Even with progress made on controlling levels of phosphorus into the river, depleted oxygen levels caused by excessive amounts of nitrogen continue to plague the river, which led the EMC to take a new set of proposals to the public for comment next month.

The core of the proposals will focus on major sources of nitrogen to the Neuse and the best methods of control.

POINT SOURCE DISCHARGERS

The EMC is proposing nitrogen and phosphorus limits for some dischargers in the basin based on type, new or existing status, size, and location within the river basin. Also, it is proposing that no new small domestic discharges less than 0.5 million gallons per day (MGD) be allowed, because these "package treatment" plants have difficulty meeting strict nitrogen and phosphorus limits.

A proposal is included for formation of a nutrient trading association below Falls Lake Dam. Members of the Association would receive individual phosphorus limits and collective nitrogen loading targets. Nitrogen loading above the nitrogen loading target would require payment for the implementation of BMPs to reduce nutrient loading from other sources in the basin.

New dischargers would receive permit limits for nitrogen and phosphorus and would have to pay for BMPs to offset their nutrient loading contribution.

transferred to a leasee through a written agreement). Commercial applicators would develop generic plans for various types of turfgrass and horticultural settings.

One proposal covers nutrient management for agricultural lands based on size of the area. The second proposal applies to these same agricultural areas, as well as recreational land, such as golf courses and parks that are fertilized.

ILLEGAL DISCHARGES

Municipalities with populations greater than 5,000 would develop a program to remove and prevent illegal wastewater discharges. This proposal would address the removal of illegal point sources of pollutants, such as leaking or overflowing sanitary sewers, car washes, household washers and floor drains, to storm drainage systems.

ANIMAL WASTE MANAGEMENT

Two alternatives were approved by the EMC for public hearing before the 1996 North Carolina General Assembly adjourned. During the 1996 session, a bill (Senate Bill 1217) was ratified that establishes a permitting and inspection program for animal operations. The requirements of Senate Bill 1217 will render the proposed rule alternatives for animal operation permitting unnecessary. Any animal waste management rules the EMC adopts as part of the NSW strategy for the Neuse River will reflect the requirements of Senate Bill 1217.

Both alternatives also propose a required 25-foot setback from ditches for spraying and land application of waste. Setbacks from ditches for land application of waste are not addressed in Senate Bill 1217.

ADDITIONAL MATERIAL

Staff of the Division of Water Quality (DWQ) can provide additional material on the proposals and hearings. DWQ has prepared several documents to help you understand what the EMC is proposing for the Neuse River NSW Management Strategy. The documents are of varying length and detail, and may be focused on specific aspects of the proposed rules. The following documents are available:

1) Executive Summary of the Concept Paper on the Draft Plan- a nine page summary of the proposed rules.
2) Concept Paper on the Draft Plan- a comprehensive discussion of the proposed rules and overall strategy. Includes a full copy of the proposed rules. (Approx. 260 pages)
3) General Summary of the Draft Plan- a descriptive summary of the proposed rules. Includes a full copy of the proposed rules. (Approx. 100 pages)
4) Executive Summary of the Draft Fiscal Analysis- a 36-page summary of the estimated fiscal impact.
5) Draft Fiscal Analysis- a comprehensive discussion of the estimated fiscal impacts of the proposed rules to local governments, other affected parties and the implementing agencies. (Approx. 300 pages)
6) Accountability Issues- a description of the process that will be used to estimate and measure the progress towards nutrient reduction goals. (Approx. 45 pages)
7) Subject Notice Comments- a summary of verbal comments received at the public workshops held in May 1996 and a copy of written comments received. (Approx. 120 pages)

You may request these documents by calling Marsha Byrd at (919)733-5083, ext 558. Please refer to the document number listed above (for example, #1-#7) when making your request.

QUESTIONS

Questions concerning the point source discharge requirements can be directed to Coleen Sullins at (919) 733-5083, ext. 550. You may direct other questions to David Harding at (919) 733-5083, ext. 569.

Buffer Requirements in the Proposed Neuse River Basin Nutrient Sensitive Waters Management Strategy

BUFFERS ARE NOT REQUIRED FOR THE FOLLOWING:

- All streams, canals and ditches that are not shown as solid or dashed lines on 1:24,000 scale topographic maps. "First order" ditches (ditches that do not receive drainage from other tributary ditches or streams) are EXEMPT from the proposed requirements as long as they do not drain directly to classified waters.

- "Hoe drains" and "field ditches" since they are usually not shown as blue lines on the USGS maps.

- Any blue line streams, canals and ditches if water control structures with a water management plan AND nutrient management are used.

- Man-made ponds and lakes, unless they are part of a natural, classified waterbody.

- Silvicultural ditches.

- Existing urban, residential (including rural and suburban residential), and industrial development.

- Development that does not require an approved Sediment / Erosion Control Plan, but is platted and recorded by the effective date of the rules.

- Development that has an approved Sediment / Erosion Control Plan by the effective date of the rules.

SITE-SPECIFIC BUFFER DETERMINATION:

- Relief from the buffer requirement is provided for site-specific and regional conditions through two pathways:

1) a matrix, to be provided by the Environmental Management Commission, of alternative buffer widths and Best Management Practices, or

2) an advisory committee that will review and approve site-specific alternatives proposed by landowners and consultants.

REDUCED BUFFER WIDTHS:

- A REDUCED buffer width along blue line streams is allowed if EITHER water control structures or nutrient management is used. The width would be reduced from a 50-foot buffer to a 20-foot forested or 30-foot vegetated buffer.

- Under the vegetated buffer rule alternative, a 30-foot forested buffer may be SUBSTITUTED for a 50-foot vegetated (grass) buffer.

Buffer Requirements in the Proposed Neuse River Basin Nutrient Sensitive Waters Management Strategy: Questions and Answers

Why are vegetated buffers proposed?

In recent years, especially the summer of 1995, there have been frequent and severe fish kills in the Neuse River. At one point, the Neuse was closed to fishing and a health advisory was issued. Scientists and environmental managers have determined that excessive nitrogen loading to the Neuse River is a key factor in creating the low oxygen conditions which have contributed to these fish kills.

Stream buffers have been shown by researchers to be extremely effective in removing nitrogen from surface and subsurface runoff. Buffers are capable of removing 80 - 90 percent of the nitrogen which is not captured by other Best Management Practices (BMPs). A BMP is the most cost-effective structural or non-structural method or tool used singularly or in combination to reduce pollution loading to receiving waters. The proposal is to maintain existing buffers and establish new buffers where they are needed to reduce the loading which comes from standard practices such as cultivating fields, fertilizing crops, and developing land.

Scientists have agreed that a 30 percent reduction in nitrogen loading is necessary to reduce severe fish kills in the Neuse. Installing buffers or equivalent BMPs, where they do not currently exist along waterbodies in the Neuse River Basin, could prevent over one million pounds of nitrogen per year from reaching streams in the basin. This reduction would help to improve water quality in the river.

Who will be required to install buffers?

We are all responsible for cleaning up the river. To be effective in cleaning up the river, we must identify the sources of pollution using the best available scientific information. It is possible to directly measure the amount of nitrogen that arrives to the Neuse River estuary at New Bern. It is also possible to directly measure some types of pollution, such as discharges of nitrogen from wastewater plants and industrial facilities. The remaining nitrogen arriving at New Bern is from nonpoint sources and "background" sources of nitrogen. "Background" means naturally occurring levels of nitrogen from undisturbed forest areas.

To estimate where the remaining nitrogen is coming from, two basic types of information have been used: 1) the acres of land in the basin which are in agriculture, urban areas, forest, and open water, and 2) the typical amount of nitrogen that is lost from these different land uses based on 113 scientific research sites. Using this information and some estimates of how much nitrogen is deposited from the air, the best scientific estimate available thus far indicates that agriculture may contribute approximately 70 percent of the nonpoint source nitrogen load to New Bern. Updated information on land use and nitrogen loading in the basin is currently being analyzed. More accurate estimates of loading from agriculture, urban areas, and natural background levels of nitrogen will soon be developed in cooperation with agricultural scientists. These new estimates will be used as we go through the public hearing process to develop a plan that reduces nitrogen

*Ditches that **DO NOT** require a buffer include:*

1) Ditches that do not show up on the most recent USGS 1:24,000 scale topographic maps.

2) Small ditches (including hoe drains and field ditches) where drainage waters first enter the drainage system. These are called "First order" ditches and are EXEMPT from the buffer requirements whether or not they are shown as blue lines, as long as they do not drain directly to classified waters. For example, "field ditches" would almost always be EXEMPT from the buffer requirements since they typically would be either "first order" ditches or they are not shown as blue lines on the USGS maps.

3) Ditches and canals where the water table is controlled through water control structures (riser structures) with a water management plan and any adjacent land receiving nitrogen has a nutrient management plan. This applies to all streams and ditches that are directly affected by a water control structure and nutrient management planning.

4) Ditches where nitrogen is controlled through BMPs which provide protection equal to water control structures and nutrient management.

*Ditches that **may** require a buffer:*

Large ditches and canals that show up on the most recent United States Geological Survey 1:24,000 scale topographic maps where nitrogen is not controlled through a nutrient management plan and water control structures (riser structures) with a water management plan or some equivalent combination of BMPs. These ditches are exempt if they do not receive flow from other ditches.

Ditches that do not have BMPs for nitrogen control and flow directly into a classified natural stream, like the Neuse River or Contentnea Creek, without first flowing through other waterbodies.

Why are the USGS 1:24,000 scale topographic maps being used to determine if buffers are required?

Many landowners have expressed concern that the maps being used to identify streams and canals are inaccurate, outdated, and inconsistent. The use of these maps is being proposed for three primary reasons:

1) Since the scale of these maps is 1:24,000, this means that one inch on the map is equal to 2000 feet on the ground. At this scale, most field ditches and small drainage conveyances are not shown. By only considering buffers along "blue lines" on the maps, we are automatically excluding many of the water bodies where it would be difficult and less effective to install a buffer.

2) Although these maps have their faults, they are the best picture we have of streams and other waterbodies in the watershed. Everyone has access to these maps through their local agricultural agents and conservationists.

How wide does a buffer need to be along waterbodies that are not totally exempted as described above?

A 20-foot forested or 30-foot vegetated buffer (landowner's choice) would be required on both sides of blue line streams, ditches or canals if the landowner uses only one of the following BMPs: 1) water control structures or 2) nutrient management.

Additional relief from the buffer requirement is provided for site-specific and regional conditions through two pathways: 1) a matrix of alternative BMPs under development by researchers and the Environmental Management Commission, or 2) an advisory committee that will review and approve site-specific alternatives proposed by landowners and consultants.

If the farmer is not using BMPs that are effective for nitrogen removal along waterbodies which are not exempted as described above, then a 50-foot buffer would be required on both sides of those waterbodies. Two rule alternatives are being proposed for buffers: a forested buffer and a vegetated (non-forested) buffer. Under the vegetated buffer rule alternative, a 30-foot forested buffer may be SUBSTITUTED for a 50-foot vegetated buffer.

Is a buffer proposed for ponds and lakes?

Man-made ponds and lakes on farms are EXEMPT from the buffer requirements, unless they are part of a classified stream, creek or other classified natural water body. The vast majority of classified waterbodies are large streams which flow into major reservoirs. Almost all farm / residential ponds are not on classified streams and are EXEMPT.

What about buffers in urban and residential areas?

All new development activities that are required to obtain an approved Sedimentation / Erosion Control plan MUST implement the 50-foot buffer requirements. Existing urban and rural development are EXEMPT from the buffer requirements.

10/8/96

3200 copies of this public document were printed at a cost of $627.20 or $.20 per copy