



Wayne County Stormwater Management Program For Nitrogen Control In the Neuse River Basin

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1. Introduction

1.1 Neuse River Basin Nutrient Sensitive Waters (NSW) Management Strategy

The goal of the Neuse River Basin Nutrient Sensitive Waters (NSW) Management Strategy (final adoption in August 1998) is to achieve a 30 percent nitrogen reduction from each controllable and quantifiable source of nitrogen in the basin. These sources are Wastewater Treatment, Urban Stormwater, and Agriculture and Nutrient Application. The NSW Strategy also includes a rule to protect riparian buffers (the Riparian Buffer Rule, 15A NCAC 2B .0233) to maintain their existing nitrogen removal capabilities.

The Neuse Stormwater Rule (15A NCAC 2B .0235) only applies to the largest and fastest growing local governments in the Neuse River Basin (there are 15); Wayne County is one of the affected governments. The rule establishes a broad set of objectives for reducing nitrogen runoff from urban areas and sets up a process for the Division of Water Quality (DWQ) to work with the affected local governments to develop a model stormwater program for meeting the objectives. The timeframe for implementation of the rule is as follows:

September 9, 2000: Deadline for submittal of local Stormwater Management Program (including ordinances) to the Environmental Management Commission (EMC).

March 9, 2001: Deadline for local governments to begin implementing local Stormwater Management Programs.

Each stormwater management program must include the following general elements: New Development Review/ Approval, Illegal Discharges, Retrofit Locations, and Public Education. Following implementation of the local Stormwater Management Programs, local governments are required to make annual progress reports to EMC by October 30 of each year that include nitrogen loading reduction estimates.

This document details Wayne County's Stormwater Management Program for Nitrogen Control in the Neuse River Basin. It closely follows the guidance provided in the *Neuse River Basin: Model Stormwater Program for Nitrogen Control* dated August 30, 1999. The implementation dates listed above differ from those listed in the model plan. The EMC committee decision to approve the model local government stormwater program occurred on September 9, 1999; the Stormwater Rule allows 12 months from EMC approval before the subject local government must submit their local stormwater management program plans to the Commission for review and approval, and 18 months for program implementation.

1.2 Wayne County's Stormwater Management Program

1.2.1 Program Goals

This document presents Wayne County's Stormwater Management Program for Nitrogen Control in the Neuse River Basin. It fulfills the requirements of the Neuse Stormwater Rule for all areas under the direct jurisdiction of the County, which excludes all incorporated areas (Goldsboro, Fremont, Eureka, Pikeville, Walnut Creek, Mount Olive, and Seven Springs), and any associated extraterritorial jurisdictions (ETJs). The County has prepared their program to be no less stringent than the program for the City of Goldsboro, the only other jurisdiction in Wayne County subject to the Neuse Stormwater Rule. In addition, teaming possibilities with Goldsboro will continually be explored, particularly in the areas of public education and outreach, and public participation/involvement. In this way, Wayne County and its constituents will garner the benefits of a standardized stormwater management program that requires the least expenditure of financial and personnel resources and avoids duplication of effort.

Another goal of this program is to provide uniform guidelines and requirements for development and growth in both the City of Goldsboro and throughout Wayne County. Although the process may differ in each jurisdiction, the program elements and requirements of both Stormwater Management Programs will be consistent. Fee schedules and penalties will be no less rigorous than those required by the City of Goldsboro. Other incorporated areas will be considered in this process. This will serve not only to avoid inappropriate and unbalanced development as a result of program implementation, but will provide standardized requirements for unincorporated areas, which undergo annexation.

1.2.2 Organization of this Stormwater Management Program

This document reflects the organization of the *Neuse River Basin: Model Stormwater Program for Nitrogen Control*. Section 2.0 presents Wayne County's Program Plan for New Development. Section 3.0 discusses the Program Plan for Illegal Discharges. Section 4.0 explains the methodology for Identifying Retrofit Locations. Public Education is discussed in Section 5.0. Section 6.0 addresses annual Evaluation and Reporting requirements.

1.2.3 Responsibilities

The implementation of this Stormwater Management Program for Nitrogen Control will be the responsibility of the Wayne County Planning Director. The County Planning Board will provide oversight. The seven Board members are appointed by the County Commissioners. The objective is to create a Board that is comprised of representatives from across the County and from diverse interests. The current Board is comprised of members from agriculture, education, commerce, and industry, all of whom reside in unincorporated areas of the County.

2. PROGRAM PLAN FOR NEW DEVELOPMENT

2.1 Controlling Nitrogen Through the New Development Review/Application Process

All new residential, commercial and industrial development in Wayne County must apply for a Development Permit from the Planning Department. All zoned areas, as well as subdivisions and manufactured housing/mobile home parks have separate ordinances that control development; however, it is the Development Permit that is common to all development under the County's jurisdiction.

It will be during this established permit application process that the County will review the Neuse Stormwater Rule components of any project falling under the "New Development" definition. The developer of builder will be required to comply with these provisions for any development that falls under either of the following definitions:

- Any activity that disturbs greater than one acre of land in order to establish expand, or modify a single family or duplex residential development or a recreation facility. [Land disturbances is defined as grubbing, stump removal, and/or grading.]
- Any activity that disturbs greater than one-half an acre of land in order to establish, expand, or modify a multifamily residential development or a commercial, industrial, or institutional facility.

To fund this additional new development review process, the Board of Commissioners will adopt a site review fee as part of the Development Permit application. It will be a sliding-scale fee based on the proposed land use (commercial verses residential) and acreage. The fee schedule is shown in Appendix A. This fee will apply to development that falls under the definition of "New Development" as detailed above. The Stormwater Ordinance adopted by Wayne County to comply with Neuse Stormwater Rule (discussed in Section 2.2 and 3.1, and included in draft form in Appendix B) will apply to all of Wayne County – including the southeastern corner of the County, which lies in the Cape Fear Basin.

All projects will be required to meet the goal of a 30 percent nitrogen reduction by implementation of planning considerations and best management practices (BMP). Agriculture, mining, or forest activities, and property owners with vested rights are not subject to the requirements of new development and will

receive a waiver. Vested rights must be demonstrated by the property owner as of the effective date of this Stormwater Management Program (as adopted the County Board of Commissioners) and may be based on at least one of the following:

- Substantial expenditures of resources as determined by the County of Planning Board (time, labor, money) based on a good faith reliance upon having received a valid local government approval to proceed with the project, or
- Having an outstanding valid building permit in compliance with G.S. 153A-344.1 or G.S. 160A-385.1, or
- Having an approved development plan or preliminary subdivision development plan in compliance with G.S. 153A-344.1 or G.S. 160A-385.1.

Projects that require a state permit, such as landfills, NPDES wastewater discharges, land application of residuals and road construction activities shall be considered to have vested rights if a state permit was issued prior to the effective date of this Local Stormwater Management Program.

New development will be limited to 3.6 pounds per acre per year (lbs/ac/yr) nitrogen loading. Property owners will have the option to partially offset projected nitrogen loads by funding wetland or riparian area restoration through the NC Wetlands Restoration Program (WRP). As established by Rule 15A NCAC 2B .0240, the rate shall be \$11 lb/yr, at an amount sufficient to fund 30 years of nitrogen reduction. The result is a one-time offset payment of \$330 lbs/ac, which must be paid prior to receipt of the Development Permit. However, no new residential development will be permitted to exceed a total nitrogen-loading rate of 6.0 lbs/ac/yr, and no new nonresidential development will be permitted to exceed 10.0 lbs/ac/yr.

The nitrogen export standard of 3.6 lbs/ac/yr was estimated by the Environmental Management Commission (EMC) to be 70 percent of the average nitrogen load contributed by the nonurban areas in the Neuse River basin (as defined using 1995 LANDSAT data). It is understood that the EMC may periodically update the performance standards based on the availability of new scientific information.

2.1.1 Calculating Nitrogen Export from New Development

The nitrogen export from each new development will be calculated. Annual reports must contain the computed baseline and net change in nitrogen export from new development that year. Wayne County will utilize the methodologies as they are detailed below. The Planning Department will supply the necessary worksheets for the developer or builder to submit their calculations for new development sites as part of their Development Permit submission (to ensure that the 30 percent reduction has been attained or that appropriate and sufficient BMP's have been planned and/or offset fees paid). The calculations will be revisited prior to issuance of the Certificate of Occupancy (to ensure that the site was developed as planned, and that any required BMP's have been constructed properly).

1. **Method 1** for residential developments where lots are shown but the actual footprint of buildings is not shown on site plans. The impervious surface resulting from building footprints is estimated based on typical impervious area associated with a given lot size. Figure 2.1 contains the worksheet for this calculation (Figure 2a from the Model Plan).
2. **Method 2** for residential, commercial, and industrial developments when the entire footprint of the roads, parking lots, buildings, and any other built-upon area is shown on the site plans. Figure 2.2 contains the worksheet for this calculation (Figure 2b from the Model Plan).
3. **For nonresidential subdivisions where the impervious surfaces are not shown on the plans at the time of submittal**, the developer or building will specify areas of impervious surface, undisturbed open space, and managed open space in their Development Permit application, assuming the maximum impervious surfaces and minimum open space for the project design. The County will establish the Development Permit as a legal, enforceable mechanism to hold the developer or builder accountable for their estimations of each land use type not later than the effective date of this program. The developer or builder will then use Method 2 (Figure 2.2) for their calculation.

4. **For redevelopment projects**, a modified procedure as described by DWQ will be used to determine the total change in nitrogen loading.

2.1.2 Methodology for Calculating Peak Runoff Volumes

The Neuse Stormwater Rule states that there can be no net increase in peak flow leaving a new development site from the predevelopment conditions for the 1-year 24-hour storm. The Planning Department will provide the developer or builder with a worksheet (Figure 2.3) that employs the Rational Method to determine the peak flow from both pre-development (performed prior to issuance of the Development Permit) and post-development (performed prior to issuance of the Certificate of Occupancy) conditions. The Rational Method is the most common method for computing the peak rate of runoff from small drainage basins (up to 150 acres). If peak runoff needs to be calculated from a larger drainage area (more than 150 acres), the Peak Discharge Method as described in the USDA Soil Conservation Service's Technical Release Number 55 (TR-55) will be employed. This methodology will be used for computing pre- and post-development conditions. (Note: The Putnam Method, while allowed by the Model Plan, was developed specifically for the Piedmont region of North Carolina, and will not be used for calculations in Wayne County, which lies in the Coastal Plain.

The equation for calculating peak runoff under the Rational Method is:

$$Q_p = Aci$$

where

- Q_p = peak runoff, cubic feet per second
- A = drainage area, acres
- c = runoff coefficient, dimensionless
- i = rainfall intensity, inches/hour

The acreage for each land use type will already be known from calculating the nitrogen export as described in Section 2.1.1. The runoff coefficients for a variety of surface types can be gotten from a table, such as the one developed by the American Society of Chemical Engineers (ASCE) & Water Environmental Federation (in *Design and Construction of Urban Stormwater Management Systems, 1972*). However, as stated by John E. Gribbin in *Hydraulics and Hydrology for Stormwater Management (1997)*, typical design values for runoff coefficients are 0.90 for impervious surfaces, 0.30 for permanently protected managed open space (such as lawns), and 0.20 for permanently protected undisturbed open space (such as woods and brush).

In keeping with the spirit of the rule, and to maintain consistency with the approach taken to calculate total nitrogen export (where total nitrogen export coefficients are set), Wayne County will adopt these typical design values for the runoff coefficient. This will result in a more consistent, objective, and straightforward calculation of peak runoff that does not need to take into account the effects of soils, rainfall intensity and duration, slope, and impervious surface. A worksheet has been prepared for the Rational Method peak runoff calculation (Figure 2.3), which is structured to mirror the instruction sheet for Method 2 for nitrogen export calculations.

The only unknown remaining from the peak runoff calculation is rainfall intensity information. DWQ will provide rainfall intensities for the County's use. These will be incorporated into this Stormwater Management Program by reference.

The developer or builder will perform the peak runoff calculation during the Development Permit submission process. Prior to issuance of a Development Permit, the post-development peak flow must be shown to be equal to or less than the pre-development peak flow (which may require the implementation of one or more BMP's), unless one of the two following conditions are met:

- The increase in peak flow between the pre- and post-development conditions does not exceed ten percent.
- The proposed new development meets all of the following criteria: overall impervious surface is less than 15 percent, and the remaining pervious portions of the site are utilized to the maximum extent practical to convey and control the stormwater runoff (as determined by the County Planning Board).

Figure 2.1 Worksheet for Method 1: Quantifying Total Nitrogen Export from Residential Developments when Building and Driveway Footprints are Not Shown

- Step 1: Determine area for each type of land use and enter in Column (2).
- Step 2: Total the areas for each type of land use and enter at the bottom of Column (2).
- Step 3: Determine the TN export coefficient associated with right-of-way using Graph 1.
- Step 4: Determine the TN export coefficient associated with lots using Graph 2.
- Step 5: Multiply the areas in Column (2) by the TN export coefficients in Column (3) and enter in Column (4).
- Step 6: Total the TN exports for each type of land use and enter at the bottom of Column (4).
- Step 7: Determine the export coefficient for the site by dividing the total TN export from uses at the bottom of Column (4) by the total area at the bottom of Column (2).

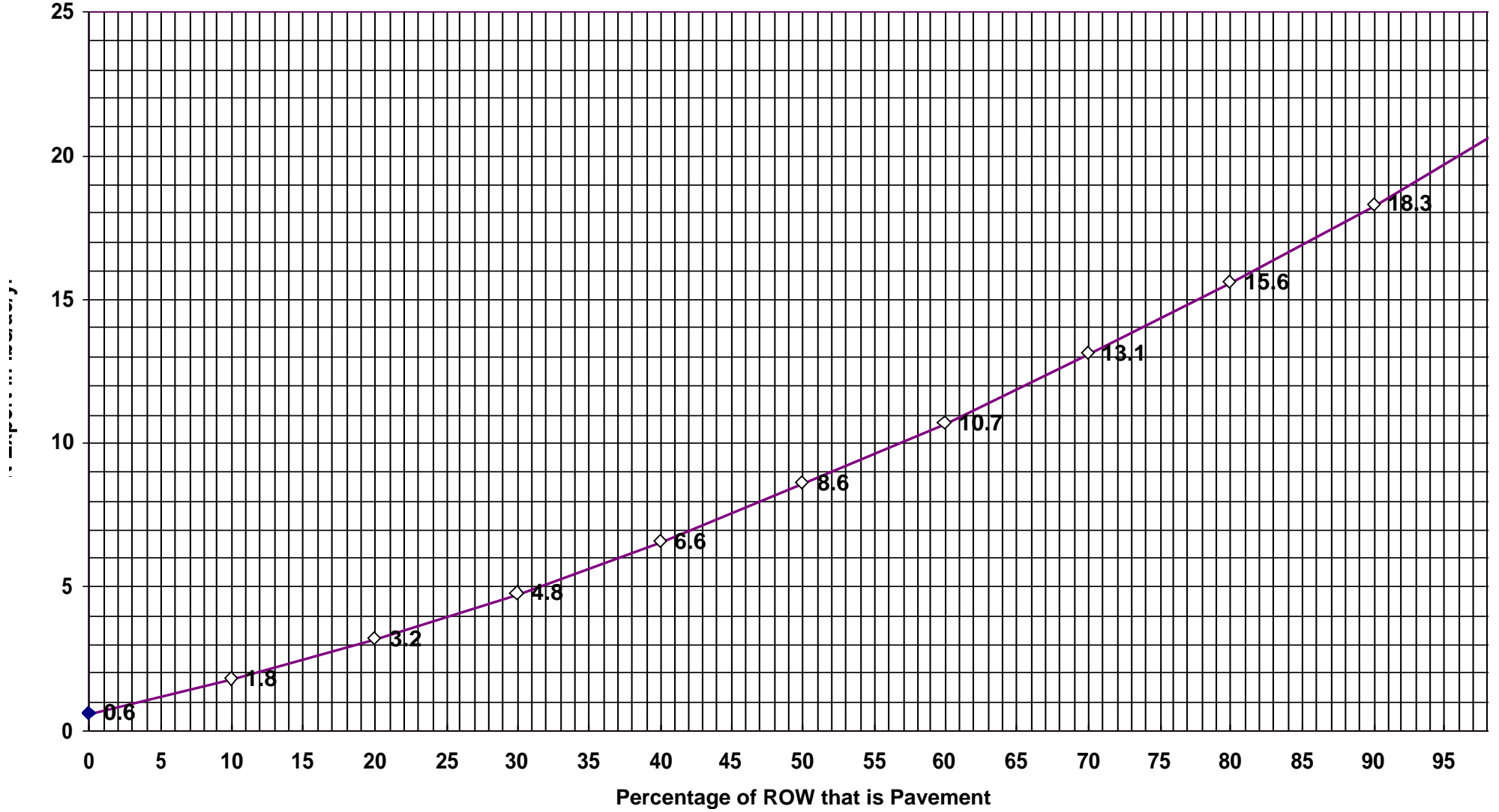
| (1) Type of Land Cover | (2) Area (acres) | (3) TN export coeff. (lbs/ac/yr) | (4) TN export from use (lbs/yr) |
|---|------------------------|--|---------------------------------------|
| Permanently protected undisturbed open space (forest, unmown meadow) | | 0.6 | |
| Permanently protected managed open space (grass, landscaping, etc.) | | 1.2 | |
| Right-of-way (read TN export from Graph 1) | | | |
| Lots (read TN export from Graph 2) | | | |
| Total | | | |

The stormwater rule requires that all new developments achieve a nitrogen export of less than or equal to 3.6 pounds per acre per year. If the development contributes greater than 3.6 lbs/ac/yr of nitrogen, then the options shown in Table 1 are available based on whether the development is residential or nonresidential.

Table 1: Nitrogen Export Reduction Options

| Residential | Commercial / Industrial |
|--|--|
| <p>If the computed export is less than 6.0 lbs/ac/yr; then the owner may either:</p> <ol style="list-style-type: none"> 1. Install BMP's to remove enough nitrogen to bring the development down to 3.6 lbs/ac/yr. 2. Pay a one-time offset payment of \$330/lb to bring the nitrogen down to 3.6 lbs/ac/yr. 3. Do a combination of BMP's and offset payment to achieve a 3.6 lbs/ac/yr export. | <p>If the computed export is less than 10.0 lbs/ac/yr, then the owner may either:</p> <ol style="list-style-type: none"> 1. Install BMP's to remove enough nitrogen to bring the development down to 3.6 lbs/ac/yr. 2. Pay a one-time offset payment of \$330/lb to bring the nitrogen down to 3.6 lbs/ac/yr. <p>Do a combination of BMP's and offset payment to achieve a 3.6 lbs/ac/yr export.</p> |
| <p>If the computed export is greater than 6.0 lbs/ac/yr, then the owner must use on-site BMP's to bring the development's export down to 6.0 lbs/ac/yr. Then, the owner may use one of the three options above to achieve the reduction between 6.0 and 3.6 lbs/ac/yr.</p> | <p>If the computed export is greater than 10.0 lbs/ac/yr, then the owner must use on-site BMP's to bring the development's export down to 10.0 lbs/ac/yr. Then, the owner may use one of the three options above to achieve the reduction between 10.0 and 3.6 lbs/ac/yr.</p> |

Graph 1: Total Nitrogen Export from Right-of-Way



Graph 2: Total Nitrogen Export from Lots

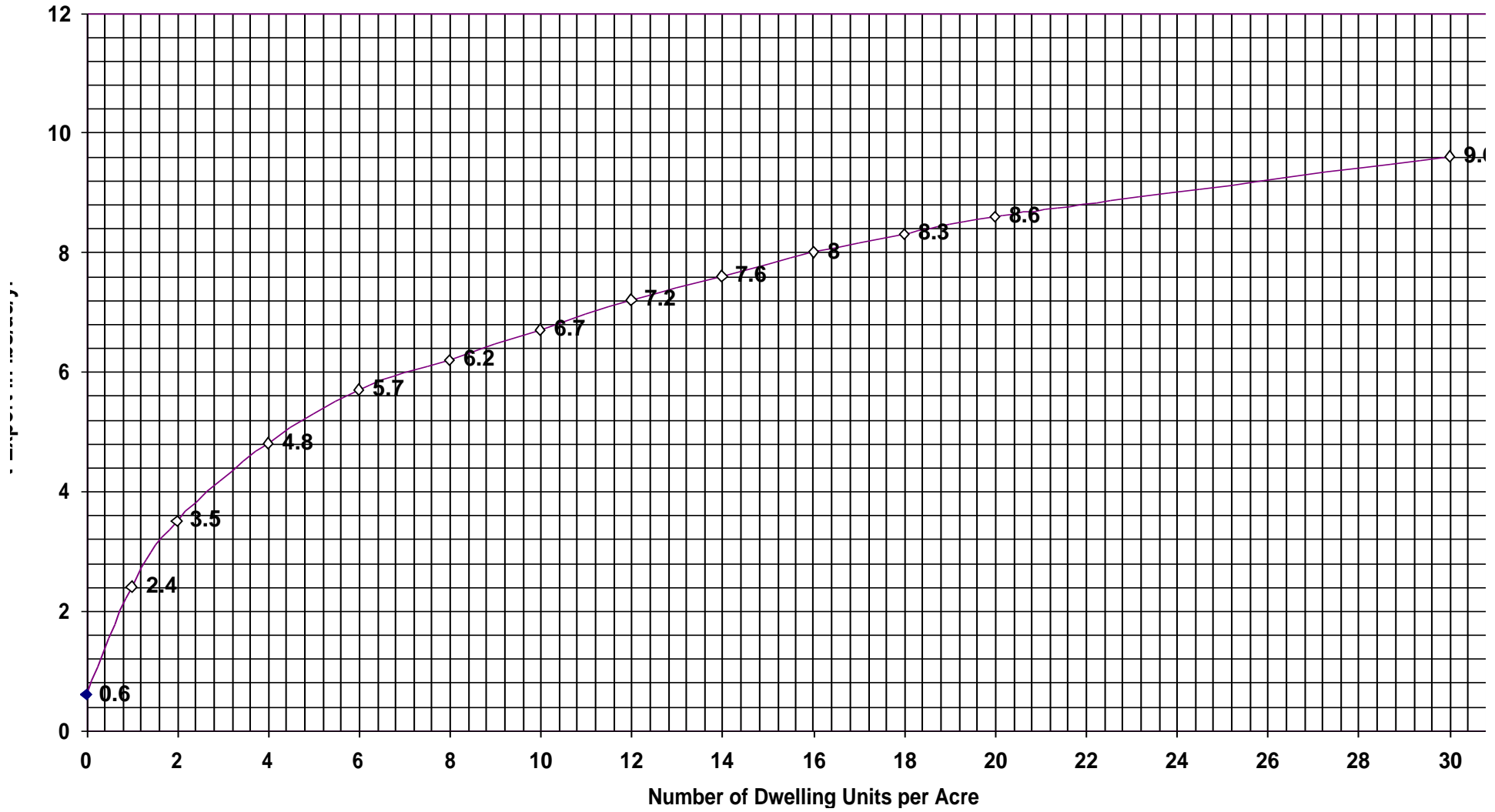


Figure 2.2 Worksheet for Method 2: Quantifying Total Nitrogen Export from Residential / Industrial / Commercial Developments when Footprints of all Impervious Surfaces are Shown

Step 1: Determine area for each type of land use and enter in Column (2).

Step 2: Total the areas for each type of land use and enter at the bottom of Column (2).

Step 3: Multiply the areas in Column (2) by the TN export coefficients in Column (3) and enter in Column (4).

Step 4: Total the TN exports for each type of land use and enter at the bottom of Column (4).

Step 5: Determine the export coefficient for the site by dividing the total TN export from uses at the bottom of Column (4) by the total area at the bottom of Column (2).

| (1) Type of Land Cover | (2) Area (acres) | (3) TN export coeff. (lbs/ac/yr) | (4) TN export from use (lbs/yr) |
|---|------------------------|--|---------------------------------------|
| Permanently protected undisturbed open space (forest, unmown meadow) | | 0.6 | |
| Permanently protected managed open space (grass, landscaping, etc.) | | 1.2 | |
| Impervious surfaces (roads, parking lots, driveways, roofs, paved storage areas, etc.) | | 21.2 | |
| Total | | | |

Figure 2.3 Worksheet for Calculating Peak Runoff from Residential/Industrial Commercial Developments using the Rational Method.

Step 1: Calculate the runoff coefficient by using the table below. Enter the area for each type of land use in Column (2). This information can be obtained from either the Method 1 or Method 2 table (Figures 2.1 and 2.2) used to quantify the total nitrogen export from the site.

Step 2: Total the areas for each type of land use and enter at the bottom of Column (2).

Step 3: Multiply the areas in Column (2) by the runoff coefficients in Column (3) and enter in Column (4).

Step 4: Total the runoff coefficients for each type of land use and enter at the bottom of Column (4).

Step 5: Determine the runoff coefficient for the site by dividing the total runoff coefficient from uses at the bottom of Column (4) by the total area at the bottom of Column (2).

| (1) Type of Land Cover | (2) Area (acres) | (3) Runoff coeff. (dimensionless) | (4) Runoff coeff. from use (acres) |
|--|------------------------|---|--|
| Permanently protected undisturbed Open space (forest, unmown meadow) | | 0.20 | |
| Permanently protected managed open space (grass, landscaping, etc.) | | 0.30 | |
| Impervious surfaces (roads, parking, lots, driveways, roofs, paved storage areas, etc.) | | 0.90 | |
| Total | | | |

Step 6: Multiply the runoff coefficient for the site (calculated in Step 5) by the rainfall intensity (in in/hr) for the 1-year, 24-hour storm. The rainfall intensity for Wayne County is 3.5 inches.

| | | | | |
|---|----------|--|-----|----------------------------------|
| <hr/> | \times | <hr/> | $=$ | <hr/> |
| Runoff coefficient For the site (dimensionless) | | Rainfall intensity (1-year, 24-hour storm) (in/hr) | | Peak runoff Volume (in/hr) |

Upon completion of the development project, and prior to approval of a Certificate of Occupancy, the post-development peak flow will again be calculated to ensure compliance with the regulations detailed above. Before the Zoning Enforcement Officer and/or Building Inspector issues the Certificate of Occupancy, the Planning Department will verify the post-construction calculation.

Because of the existence of local flooding problems, peak flow calculations may indicate the need for stormwater detention in areas that would actually increase flooding problems as a result of their implementation. For sites that are in (or drain to) these flood-prone areas, exemptions may be granted on a case-by-case basis. Wayne County addresses this problem in its *Flood Damage Prevention Ordinance*. One of the purposes of the ordinance is to “prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands.”

2.3 Wayne County’s Choice for Protection of Riparian Buffers in New Developments

The Neuse Stormwater Rule requires local governments to ensure that riparian areas are protected on new developments in accordance with the Riparian Buffer Rule (15A NCAC 2B .0233). The rule requires for protecting and maintaining the 50-foot riparian buffers on all sides of intermittent and perennial streams, ponds, lakes, and estuaries in the Neuse River basin. These waters must be shown on the most recent version of either a Natural Resources Conservation Service (NRCS) Soil Survey county map or a 1:24,000 scale (7.5-minute quadrangle) topographic map prepared by the US Geological Survey (USGS).

Wayne County will refrain from issuing local approvals for any new development activity that is proposed to take place within the first 50 feet adjacent to an affected water body, unless:

- a. the person requesting the approval does not propose to impact the riparian buffer or a surface water indicated on the NRCS or USGS maps listed above, or
- b. the property owner has received approval by DWQ. DWQ approval could be:
 - an on-site determination from DWQ that surface waters are not present,
 - an Authorization Certificate for a use designated as Allowable,
 - an Authorization Certificate for a use designated as Allowable,
 - a variance.

2.2 Best Management Practices (BMP’s)

2.2.1 Choosing BMP’s

Site planning practices that reduce nitrogen loadings from new development (including reducing impervious surfaces and protecting open spaces) will be encouraged; however, BMP’s may still be required. Property owners will be instructed to consider the ability of the BMP’s to reduce their nitrogen loading within acceptable limits, as well as the issues of aesthetics, long-term maintenance, safety, and reliability of the BMP design.

In conjunction with the Public Education component of this plan (Section 5.0), information sources will be made available to property owners and developers explaining the benefit to them of incorporating site planning practices into their new development plans from the onset (reducing road widths, reducing minimum parking requirements, minimizing use of curb and gutter, allowing cluster or open-space developments, allowing traditional neighborhood developments, and others). If they do not choose to incorporate these practices, or if BMPs are still required, information sources may be provided on the various BMPs available for nitrogen reduction, their individual effectiveness and cost, as well as data on which methods work best for the area’s soil type(s). If more than one BMP is installed in series on a development, then the removal rate shall be determined through serial rather than additive calculations. As research and development in this field progresses, information sources on new BMP techniques or improvements in established BMP techniques may also be disseminated as part of the Public Education Action Plan.

The BMPs which may currently be utilized for reducing nitrogen from new developments are listed below. The estimated total nitrogen removal rate for each BMP included in parenthesis.

- Wet detention ponds (25%)
- Constructed wetlands (40%)
- Open channel practices (30%)
- Riparian buffers (30%)

- Bioretention (25%)
- Vegetated filter strips with level spreader (20%)
- Sand filters (35%)
- Proprietary BMPs (varies)

If a builder or developer includes one or more BMP as part of their design, they will be required to provide an engineering certification of the design at the time they submit their Development Permit application. Prior to issuance of a Certificate of Occupancy, the builder or developer will be required to submit an engineering certification that the BMP was constructed as designed and is operating properly.

2.2.2 Long-Term Maintenance Plan for BMPs

The Planning Department will conduct annual inspections of all BMPs. An annual inspection fee will be charged to fund this additional inspection program (as adopted by the Board of Commissioners). A current list of all BMPs, their location, and status will be maintained by the Planning Department to assist in the inspection process. BMPs will be required to be on the same lot as the new development, unless waived because of potential flooding problems, or unless an off-site location for the BMP has been approved by the County's Planning Department.

Wayne County has drafted a new Stormwater Ordinance to address the need for a maintenance plan for these BMPs, as well as the need to establish legal authority to control illegal discharges (see Section 3.1). For the long-term maintenance of BMPs:

- The County will notify the owner upon finding that maintenance is needed on a BMP. If the owner does not complete the maintenance in a timely manner, then the County will contract out the maintenance and recover costs in the manner it determines most appropriate.

Appendix B contains the adopted Stormwater Ordinance for Wayne County.

2.3 Local Ordinance Review of Land-Use Planning and Design Techniques

The Model Plan addresses the use of land-use planning provisions to reduce impervious surfaces with design techniques and thereby reducing the need for BMPs and associated maintenance concerns. Jurisdictions are required to show they reviewed local ordinances with regard to the following planning techniques (and the general advantages and disadvantages of incorporating these approaches at the local level) and show that they have provided adequate flexibility for developers to utilize planning measures to reduce impervious surfaces. This review is intended to look for opportunities where these measures could be allowed, or obstacles to their use could be removed,

- Reducing road widths
- Reducing minimum parking requirements
- Minimizing curb and gutter use
- Cluster or open-space developments
- Traditional neighborhood developments
- Mixed-use developments

This review is underway by the Planning Department and will be completed by March 9, 2001, the expected date for program implementation. Although the County requires no curbing, and minimum street requirements are those established by the NC Department of Transportation, several ordinance areas have already been identified for a more detailed review. Where possible, Wayne County will insert verbiage into the County Ordinances which allows for, and encourages, the use of planning and design techniques to decrease impervious surface area.

2.4 Jurisdiction-Wide and Inter-local Approaches

Jurisdiction-wide and inter-local approaches may be incorporated into the County's Stormwater Management Program if appropriate information shows how they will achieve the nitrogen loading reduction requirements applicable to new development. Some ideas include:

- Creating stormwater management facilities (such as ponds) would require on-site controls to locally protect against water quality degradation and flooding, and Neuse buffer requirements may impact the feasibility of some approaches.
- “Land Banking” within the same watershed where development is occurring. Land should have significant water quality value and secured in a permanent conservation easement or equivalent legal mechanism prohibiting both farming and unapproved logging practices, tracked on GIS, and recorded on the plat or deed.

Prior to incorporating such approaches into the County’s Stormwater Management Program, it will demonstrate and quantify the associated nitrogen removals.

2.5 EPA’s Phase II Stormwater Requirements

EPA’s Phase II Stormwater Rule contains two minimum control measures which fall within this Program Plan for New Development: Construction Site Runoff Control and Post-Construction Runoff Control. Because of the way the Neuse Stormwater Rule is structured – limiting nitrogen export, freezing peak runoff volumes, establishing protection for riparian buffers in new development, and requiring the installation and maintenance of BMPs where necessary – the majority of the Phase II requirements for construction site runoff have already been addressed in this Program Plan.

2.5.1 Construction Site Runoff Control

The Construction Site Runoff Control Minimum Control Measure requires a regulatory mechanism to control polluted runoff from construction sites; a site plan review process to control erosion and sediment and other waste at the site; an inspection and enforcement program of control measures to deter infractions; and a procedure for the receipt and consideration of public enquires, concerns, and information submitted regarding local construction activities. The State Sedimentation Control Act (Title 15A, Chapter 4) addresses all of these issues except for the receipt of information from the public. It is likely that this particular component could be added as a part of the Public Education Action Plan (Section 5.0).

2.5.2 Post-Construction Runoff Control

The Post-Construction Site Runoff Control Minimum Control Measure requires the development and implementation of strategies which include a combination of structural and/or nonstructural BMPs; an ordinance or other regulatory mechanism requiring the implementation of post-construction runoff controls. All of these provisions are included in this Stormwater Management Program.

3. PROGRAM PLAN FOR ILLEGAL DISCHARGES

3.1 Establishing Legal Authority to Control Illegal Discharges

The Neuse Stormwater Rule requires that selected local governments establish a program to prevent, identify, and remove illegal discharges. The Wayne County Planning Department had drafted a County Stormwater Ordinance to establish this authority within the areas of the County under their direct jurisdiction, as well as to provide for the long-term maintenance of structural BMPs. This draft ordinance is included in Appendix B of this Stormwater Management Program and shows that Wayne County will be able to:

- Control the contribution of pollutants to the stormwater collection system associated with industrial activity.
- Prohibit illegal discharges to the stormwater collection system.
- Prohibit discharge of spills and disposal of materials other than stormwater to the stormwater collection system.
- Determine compliance and noncompliance.
- Require compliance and undertake enforcement measures in cases of noncompliance.

Following approval of this Stormwater Management Program, the draft ordinances may be changed to incorporate any comments received in their regard. The County Board of Commissioners will then establish the legal authority to control illegal discharges by adopting the ordinances at one of their regularly scheduled

meetings (prior to March 9, 2001). Appendix C contains the minutes/resolution of the Board of Commissioners' August 29, 2000 meeting stating their intention to approve this Stormwater Management Program and adopt the draft Stormwater Ordinance following EMC program approval.

Local governments with the exception of Goldsboro, who discharge stormwater into the County, will be identified and their discharge points located. If there is evidence of illegal discharges from those sources, the local governments will be notified and asked to correct the problem. If the problem is not corrected, Wayne County will take actions through the appropriate channels.

Tables 3.1 and 3.2, respectively, identify some discharges that are and are not allowed to the stormwater collection system.

Table 3.1 Discharges that May be Allowable to the Stormwater Collection System

| | | |
|---|--|--|
| Waterline Flushing | Landscape Irrigation | Diverted Stream Flows |
| Uncontaminated Rising Ground Water | Uncontaminated Ground Water Infiltration to Stormwater Collection System | Uncontaminated Pumped Ground Water |
| Discharges from Potable Water Sources | Foundation Drains | Uncontaminated Air Conditioning Condensation |
| Irrigation Water | Springs | Water from Crawl Space Pumps |
| Footing Drains | Lawn Watering | Non-commercial Car Washing |
| Flows from Riparian Habitats and Wetlands | NPDES Permitted Discharges | Street Wash Water |
| Fire Fighting Emergency Activities | Wash Water from the Cleaning of Buildings | Dechlorinated Backwash and Draining Associated with Swimming Pools |

Table 3.2 Typed of Discharges that are not Allowed to Stormwater Collection System

| | | |
|--|--|--|
| Dumping of Oil, Antifreeze, Paint, Cleaning Fluids | Commercial Car Wash | Industrial Discharges |
| Contaminated Foundation Drains | Cooling Water Unless No Chemicals Added and Has NPDES Permit | Washwaters from Commercial/Industrial Activities |
| Sanitary Sewer Discharges | Septic Tank Discharges | Washing Machine Discharges |
| Chlorinated Backwash and Draining Associated with Swimming Pools | | |

3.2 Collecting Jurisdiction-Wide Information

The County will collect geographic information at three increasing levels of detail:

- First, most cursory level of information shall be collected for the entire jurisdiction.
- Second level is a more detailed screening for high priority areas within the jurisdiction.
- Third level is a very detailed investigation that shall be done upon the discovery of an illegal discharge.

The purpose of collecting jurisdiction-wide information (which must be completed by the second annual report in October 2002) is to assist with the identifying potential illegal discharge sources and characterizing illegal discharges after they are discovered. Maps will be compiled at a scale no greater than 1:24,000 to show the following:

- Location of sanitary sewers in areas of the major stormwater collection systems and the location of areas that are not served by sanitary sewers.
- Waters that appear on the NRCS Soil Survey Map and the USGS 1:24,000 scale topographic maps.
- Land uses, Categories, at a minimum, should include undeveloped, residential, commercial, agriculture, industrial, institutional, publicly owned open space, and others.
- Currently operating and known closed municipal landfills and other treatment, storage, and disposal facilities, including hazardous materials.
- Major stormwater structural controls.
- Known NPDES permitted discharges to the stormwater collection system (this list can be obtained from DWQ).

Written descriptions will be provided for map components as follows:

- A summary table of municipal waste facilities that included the names of the facilities, the status (open/closed), the types, and addresses.
- A summary table of the NPDES permitted dischargers that includes the name of the permit holder, the address of the facility and permit number.
- A summary table of the major structural stormwater control structures that shows the type of structure, area served, party responsible for maintaining, and age of structure.
- A summary table of publicly owned open space that identifies size, location, and primary function of each open area.

3.3 Mapping and Field Screening in High Priority Areas

As part of the October 2002 annual report, Wayne County will identify a high priority area for more detailed mapping and field screening (at least 10 percent of the jurisdiction area). Each subsequent year, another high priority area of at least 10 percent size will be chosen.

“High Priority” means the areas where it is most likely to locate illegal discharges (e.g., older development). The basis of the annual selection of each high priority area will be explained.

The **first part of the screening process** for the selected area is mapping of the stormwater system, which should include:

- Locations of the outfalls of any pipes from nonindustrial areas that are greater than or equal to 36 inches.
- Locations of the outfalls of any pipes from industrial areas that are greater than or equal to 12 inches.
- Locations of drainage ditches that drain more than 50 acres of nonindustrial land.
- Locations of drainage ditches that drain more than 2 acres of industrial land.
- An accompanying summary table listing the outfalls that meet the above criteria that includes outfall ID numbers, location, primary and supplemental classification of receiving water, and use-support of receiving water.

The **second part of the process** is conducting a dry weather field screening of all outfalls that meet the criteria to detect illegal discharges. The dry weather field screening will not be conducted during or within 72 hours following a rain event of 0.1 inches or greater. In residential areas, field screening will be scheduled either before 9:00 am or after 5:00 pm (if possible), hours when citizens are most likely to be home and illegal discharges are more likely to be evident. A field screening process, such as that illustrated in Figure 3.1 will be followed.

If field screening shows that the outfall is dry, then the outfall should be checked for intermittent flow at a later date. If the field screening shows that an outfall has a dry weather flow, then a screening report for the outfall will be completed. The field screening report will contain information similar to that detailed in Table 3.3 (general information, field site description, visual observations, and any required sampling analysis). Analytical monitoring is required only if an obvious source of the dry weather flow cannot be determined through an investigation of the upstream stormwater collection system. Screening reports will be kept for five years.

Outfalls with flow will be screened again with 24 hours for the parameters included in the field screening report. Any tests for ammonia and nitrate/nitrite that are purchased will be sensitive for 0.1 to 10mg/L.

Table 3.3 Field Screening Report Information

| | | |
|------------------------|---|--|
| General Information | Sheet Number Outfall ID Number Date Time Date, Time and Quantity of Last Rainfall Event | |
| Field Site Description | Location Type of Outfall Dominant Watershed Land Use(s) | |
| Visual Observations | Photograph Odor Color Clarity Floatables | Deposits/Stains Vegetation Condition Structural Condition Biological Flow Estimation |
| Sampling Analysis* | Temperature pH Nitrogen-Ammonia | Nitrogen-Nitrate/Nitrite Fluoride or Chlorine |

* Analytical monitoring is required only if an obvious source of the dry weather flow cannot be determined through an investigation of the upstream stormwater collection system.

Figure 3.1 Field Screening Process

Flow Found

Flow Found

* Checking for intermittent flow includes rechecking outfall at a later date as well as visual observations for evidence of intermittent flow.

3.4 Identifying and Removing Illegal Discharges

After the field screening is complete, the County will take measures to identify and remove illegal discharges. The jurisdiction-wide information compiled as the first step in this process will be consulted for information on land uses, infrastructure, industries, potential sources, and types of pollution that exist in the drainage area of the outfall.

After potential sources have been identified, the Planning Department will be responsible for planning a systematic field investigation to minimize the amount of resources required to identify the source. Several field methods may be used, with the simplest approach recommended, if that will suffice. From simplest to more complex, the recommended approaches are:

- Site Investigation.
- Additional chemical analysis (recommended testing for fecal coliform if the ammonia concentration is found to exceed 1.0 mg/L).
- Flow monitoring (multiple site visits recommended rather than a depth indicator).
- Dye testing (fluorescent dye is recommended).
- Smoke testing.
- Television inspection.

Documentation of the results of the office and field investigations will be kept on file for five years with the screening report.

After the source of an illegal discharge is identified, enforcement action will be taken to have the source removed or redirected to the sanitary sewer. Appendix B contains the draft Stormwater Ordinance which established the authority to control illegal discharges, as well as the authority to order a source removed (or redirected) and penalties for noncompliance. Records of compliance actions will be kept for five years with the screening report.

In addition to keeping all screening reports on file, Wayne County will maintain a map of:

- Points of identified illegal discharges.
- Watershed boundaries of the outfalls where illegal discharges have been identified.

An accompanying table that summarizes the illegal discharges that have been identified that includes location, a description of pollutant(s) identified, and removal status.

County personnel will be trained in how to conduct a through field screening, how to review the field screening results in conjunction with the jurisdiction-wide information collected previously, and how to plan an effective field investigation to identify the source of illegal discharge. The training of County personnel to undertake the process of investigating and identifying illegal discharges will be multi-phased. Training materials (pamphlets, flyers, and/or booklets) will be disseminated to all involved personnel as part of Wayne County's Public Education Action Plan (Section 5.0). It is anticipated that most (if not all) of these materials can be obtained from agencies such as DWQ and the US Environmental Protection Agency (EPA). In addition, the written training materials may be accompanied by seminars and hands-on field training. The Planning Department will be responsible for coordinating personnel training and for scheduling all illegal discharge activities.

1.3 Preventing Discharges and Establishing a Hotline

The Planning Department will contact persons who are responsible for establishments that are likely sources of illegal discharges (e.g. auto sales, rental and repair business, lawn care companies, cleaners, and certain types of contractors). A letter (a draft letter is included in Appendix D) will be mailed to all such businesses that can be identified. The mailing list will be compiled from Environmental Health's Food and Lodging inspection roll (containing establishments such as schools, motels, restaurants, food stores, day cares, swimming pools) and from the Fire Marshall's inspection list (containing a list of all development with the exception of single and duplex residential development). The letter will be mailed before the annual report is due in October 2001.

By October 2002, Wayne County will establish an illegal discharge hotline as a cost effective way to identify illegal discharges. There will be a recording advising citizens what to do if they call during nonbusiness

hours, or in the case where and illegal discharge is perceived to be an emergency. Part of the Public Education Action Plan (discussed in Section 5.0) will be to educate citizens about what types of discharges should not go to the stormwater collection system and make them aware of the hotline.

Table 3.4 is a summary table showing the phased implementation schedule for illegal discharges.

Table 3.4 Phased Implementation Schedule for Illegal Discharge Activities

| Year | Implementation Requirements | Annual Report Requirements |
|---------------------------------|--|---|
| By March 9, 2001 | <ul style="list-style-type: none"> Establish legal authority to address illegal discharges. | Submit report identifying established legal authority to meet requirements. |
| By October 2002 | <ul style="list-style-type: none"> Collect jurisdiction-wide information. Select high priority area for additional screening. Initiate illegal discharge hotline. | <ul style="list-style-type: none"> Report on completion of jurisdiction-wide information collection. Submit map of high priority areas and reason for selection. Report on initiation of illegal discharge hotline. |
| Each subsequent year after 2002 | <ul style="list-style-type: none"> Complete mapping and field screening for high priority area. Select next high priority area. Identify and remove illegal discharges as encountered. Continue operating illegal discharge hotline. | <ul style="list-style-type: none"> Submit map of stormwater collection system in high priority area upon request by DWQ. Document illegal discharges found and resulting action. Report on hotline usage and actions taken. Submit map of next high priority area and reason for selection. |

3.6 EPA’s Phase II Stormwater Requirements

The Program Plan for Illegal Discharges outlined above for the Neuse Stormwater Rule, in conjunction with the Public Education Action Plan detailed in Section 5.0, addresses the expected requirements of EPA’s Phase II Stormwater, Illicit Discharge Detection and Elimination Minimum Control Measure. It is expected that only minimal adjustments will need to be made to the Stormwater Management Program to comply with all of the requirements of EPA’s Phase II Stormwater rule once NCDENR has developed the Phase II Stormwater Permit.

4. IDENTIFYING RETROFIT LOCATIONS

4.1 Annual Retrofit Actions

Wayne County will establish a program to identify places within existing developed areas that are suitable for retrofits. Based on their current census figures, Wayne County will identify a minimum of three retrofit locations. Possible sites for retrofits will be selected by the Planning Department. A feasibility study of each site will be conducted before compiling a final list of acceptable sites. This list will be submitted to the County Planning Board to set the priority for each site and to approve the final selections. The Planning Department will be responsible for preparing the retrofit information tables fro the annual report.

Retrofit opportunities will be considered acceptable if all of the following conditions have been investigated:

- The retrofit, if implemented, clearly has the potential to reduce nitrogen loading to the receiving water.
- The watershed is clearly contributing nitrogen loading above background levels.
- The landowner where the retrofit is proposed is willing to have the retrofit installed on his property (often the most difficult aspect of implementing a retrofit).
- There is adequate space and access for the retrofit.
- It is technically practical to install a retrofit at that location.

Sites may be carried over to meet the minimum requirements for up to two subsequent years provided the BMPs/retrofits have not been implemented and the site continues to meet the criteria above on an annual basis.

4.2 Data Collection and Notification

Each retrofit opportunity that is identified will be accompanied by information to describe the location of the retrofit, the type of retrofit being proposed, the property owner, as well as basic information about the watershed and the receiving water. Table 4.1 (Table 4b from the Model Plan) or one very similar to it will be completed for each retrofit opportunity and be submitted on October 30 of each year, beginning in 2001, as part of the annual report.

DWQ will be responsible for posting the retrofit opportunities on its Web Page and also for notifying a minimum of 11 organizations of the opportunities for retrofitting within existing developed areas.

Table 4.1 Retrofit Opportunity Table

| | |
|--|--|
| Location description, including directions from a major highway | |
| Type and description of retrofit opportunity | |
| Current property owner | |
| Is the property owner willing to cooperate? | |
| Land area available for retrofit (sq. ft.) | |
| Accessibility to retrofit site | |
| Drainage area size (acres) | |
| Land use in drainage area (percent of each type of land use) | |
| Average slope in drainage area (%) | |
| Environmentally sensitive areas in drainage area (steep slopes, wetlands, riparian buffers, endangered / threatened species habitat) | |
| Approximate annual nitrogen loading from drainage area (lbs/acre/year)* | |
| Potential nitrogen reduction (lbs/ac/yr) | |
| Estimated cost of retrofit | |
| Receiving water | |
| DWQ classification of receiving water | |
| Use support rating for receiving water | |
| Other important information | |

* Suggested methodology: Use Figure 2.2 from Section 2.0 (Method2) to compute nitrogen export from the drainage area based on the amount of impervious surface, landscaped area and forested area in the watershed.

4.3 Mapping Identified Retrofit Locations

Wayne County will prepare maps which show the locations of the retrofit opportunities (the mapping may be accomplished by using computers or with existing hard copy maps). The scale of the map will be large enough to adequately identify the following required parameters:

- Drainage area to retrofit opportunity site.
- Land uses within the drainage area.
- Location of retrofit opportunity.
- Property boundaries in the vicinity of the retrofit opportunity.
- Significant hydrography (as depicted on USGS topographic maps and NRCS Soil Survey maps).
- Roads
- Environmentally sensitive areas (steep slopes, wetlands, riparian buffers, endangered/threatened species habitat – where available).
- Publicly owned parks, recreation areas, and other open lands.

5. PUBLIC EDUCATION

5.1 Public Education Action Plan

The Neuse Stormwater Rule requires that Wayne County develop a locally administered environmental education program (a Public Education Action Plan) to address nitrogen-loading issues. The Action Plan will outline the proposed education activities for the upcoming year, and will identify target audiences and anticipated costs of the program. Wayne County will submit their annual Action Plan to DWQ for approval prior to October 1 of each year, starting October 1, 2001.

The Action Plan will consist of activities from each of the two categories listed in the Table 5.1 below. Innovative activities not included in this table may be considered on a case-by-case basis. All activities must be designed to raise awareness and educate the audience about water quality, nonpoint source pollution, and the effects of everyday activities on water quality and nutrient loading. At least one of these activities will be directed at educating the citizens about what types of discharges should not go to the stormwater collection system and to making them aware of the illegal discharge hotline. In addition to Category 1 and 2 activities, this Action Plan will include two technical workshops in the first year and a toll free hotline for reporting illegal discharges.

Table 5.1 Public Education Action Plan Category 1 and 2 Activities.

| Category 1 | Category 2 |
|---|--|
| Demonstration Sites (for BMPs) | Fact Sheets |
| “Adopt-a-Program” | Environmental Freebies |
| Quarterly local newspaper articles | Fertilizer Tags |
| Storm drain marking | Flyers |
| Recognition Program (recognize environment friendly participants) | Postmarks |
| Web page | Utility bill inserts |
| Local Cable TV program | Close-out Packages (new homeowners) |
| Toll free hotline for reporting environmental programs | Speak to civic organizations quarterly |
| Environmental field day | |
| Technical Workshop (only applicable after 1 st year | |
| Environmental Contest | |

As discussed in Section 2.2.1, information sources will be provided to property owners and developers explaining the benefit to them of incorporating site planning practices into their new development plans from the onset. Information sources may also be provided on the various BMPs available for nitrogen reduction as well as information on new BMP techniques or improvements in established BMP techniques.

For the training of County personnel to identify and remove illegal discharges (Section 3.4), training materials such as pamphlets, flyers, and/or booklets will be disseminated to all involved personnel. It is anticipated that most (if not all) of these materials can be obtained from agencies such as DWQ and the US EPA. In addition, the written training materials may be accompanied by seminars and hands-on field training.

5.1.1 Planned Activities

Wayne County (with a population of less than 60,000 under their jurisdiction) will include two Category 1 activities and two Category 2 activities in their annual Action Plan. The combination of activities selected by the County will be chosen as to provide a general awareness of nitrogen loading issues and address a diverse audience.

Wayne County has already anticipated that a creative approach may be needed to effectively reach the majority of the County's residents. For example, the only mass mailing made to Wayne County residents is their annual tax bill. Even if it weren't mailed on a post card (making insertion of flyer impossible), trying to educate someone and solicit their support for a program which they are being presented with their tax bill is probably not the most useful approach to take. However, almost everyone purchases electricity, making the electric bill a very effective and efficient way of distributing an informational flyer.

The ultimate goal of the public education program is to utilize major media advertising (television, radio, and newspaper) to reach a broad audience (but may be cost prohibitive). Should Wayne County use effective major media advertising, either independently or through cooperative effort, then Wayne County will be exempt from the minimum Category 1 and 2 requirements.

5.1.2 Technical Workshops

During the first year of program implementation, two technical workshops will be conducted. One shall be designed to educate local government officials and staff, and the other for the development community (including engineers, developers, architects, contractors, surveyors, planners and realtors). In subsequent years, workshops are considered an option under Category 2 activities, and will be considered for inclusion in the annual Education Action Plan.

5.2 Incorporating Existing Resources and Programs

Community teaming is encouraged in the Stormwater Rule, Wayne County will make every effort to research and incorporate existing resources and stormwater education programs. Although Wayne County's unique Action Plan will fulfill all public education requirements from the onset, the County recognizes that utilizing existing resources will not only result in a more consistent education effort for communities of all sizes, but will make the most efficient use of available resources and will reduce duplication of efforts.

Teaming possibilities with the City of Goldsboro will continually be explored, particularly in regards to the following Public Education activities:

- **Major Media Advertising:** If the County and City could implement effective major media advertising (radio, television, newspaper), they will become exempt from minimum Category 1 and 2 activities.
- **Category 1 and 2 activities:** If the effective major media advertising is not employed, it may prove easiest and most cost effective to conduct planned activities together.
- **Workshops:** The two technical workshops that must be conducted during the first year (one to educate local government officials and staff, and the other for the development community) could be sponsored jointly, thereby reducing costs and duplication of efforts.

5.3 EPA’s Phase II Stormwater Requirements

EPA’s Phase II Stormwater Rule contains minimum control measures for public education and outreach and public participation/involvement. For Phase II, educational materials and strategies should be tailored to activities relevant to local situations and issues, while reaching a variety of audiences and communities including ethnic, minority, and low-income communities; academia and educational institutions; neighborhood and community groups; children; outdoor recreation groups; and business and industry. Wayne County’s Public Education Action Plan for the Neuse Stormwater Rule will serve as an excellent foundation for the County’s Phase II efforts and will be easily expanded and/or tailored as required.

6. EVALUATION AND REPORTING

Annual Neuse River Basin Stormwater Management Program reports must be submitted to DWQ by October 30 of each year beginning in 2001. All reports must contain the following information:

A. New Development Review/Approval

The following information will be submitted as part of the annual reporting requirement:

- Acres of new development and impervious surface based on plan approvals.
- Acres of new development and impervious surface based on Certificates of Occupancy.
- Summary of BMP’s implemented and use of offset fees.
- Computed baseline and net change in nitrogen export from new development that year (see Table 6.1 for specific reporting requirements).
- Summary of maintenance activities conducted on BMP’s.
- Summary of any BMP failures and how they were handled.
- Summary of results from jurisdictional review of planning issues.

Table 6.1 Specific Annual Nitrogen Loading Reporting Requirements*

| |
|--|
| <p>1. The predevelopment nitrogen load from all land development during the past year. This can be determined by:</p> <ul style="list-style-type: none"> • Taking total acres of cropland developed multiplied by 13.6 lbs/ac/yr and adding • Total acres of pasture developed multiplied by 4.4 lbs/ac/yr for pasture, and adding • Total acres of forested land developed multiplied by 1.7 lbs/ac/yr, and adding • Total acres of residential land redeveloped multiplied by 7.5 lbs/ac/yr, and adding • Total acres of commercial and industrial lands redeveloped multiplied by 13.0 lbs/ac/yr. |
| <p>2. The post development nitrogen load from all land developed during the past year without structural BMP’s.</p> |
| <p>3. The post development nitrogen load from all land developed during the past year with structural BMPs. Unfortunately, it will be very difficult to document the improvements in nitrogen loading due to implementation of nonstructural BMPs. However, jurisdictions are more than welcome to attempt this if they wish.</p> |
| <p>4. Pounds of nitrogen bought by developers making offset payments to the Wetlands Restoration Program.</p> |
| <p>5. The net change in nitrogen loading for the year. This would be (Item 3 – Item 1) – Item 4. A positive number would denote an increase; a negative number would denote a decrease.</p> |
| <p>6. The reduction in nitrogen loading due to structural BMPs and Wetland Restoration Program payments. This would be (Item 2 – Item 3) + Item 4. This should be a positive number that represents the pounds of nitrogen removed that year as a result of implementing the Neuse Stormwater Rule.</p> |

*This list of items that should be accounted for was agreed upon by the Neuse Stormwater Team during their June 1, 2000 meeting.

B. Illegal Discharges

The annual reporting requirements for illegal discharges are detailed in Table 6.2.

Table 6.2 Annual Illegal Discharge Reporting Requirements

| Year | Annual Report Requirements |
|---------------------------------|--|
| By March 9, 2001 | <ul style="list-style-type: none">• Submit report identifying established legal authority to meet requirements |
| By October 2002 | <ul style="list-style-type: none">• Report on completion of jurisdiction-wide information collection.• Submit map of high priority areas and reason for selection.• Report on initiation of illegal discharge hotline. |
| Each subsequent year after 2002 | <ul style="list-style-type: none">• Submit map of stormwater collection system in high priority area upon request by DWQ.• Document illegal discharges found and resulting action.• Report on hotline usage and actions taken.• Submit map of next high priority area and reason for selection. |

C. Retrofit Locations

- Data on each retrofit opportunity (Table 4.1 or equivalent),
- Maps of potential retrofit sites as specified in Section 4.3, and
- The status of any retrofit efforts that have been undertaken within the jurisdiction.

D. Public Education

The report must summarize the next years Action Plan and evaluate the implementation of the previous years Action Plan (if applicable). The report should include goals, activities completed, realized education program costs, explanation of experienced shortfalls, and a plan as to how the locality will address shortfalls.

APPENDIX A
Site Review Fee Schedule

Wayne County
Site Review Fee Structure for New Development Review Process

The Wayne County Board of Commissioners establishes the following schedule of fees to partially defray the costs of reviewing new development projects for compliance with Neuse Stormwater Rule requirements as detailed in the *Wayne County Stormwater Management Plan for Nitrogen Reduction in the Neuse River Basin*. Fees payable at the time of submission of the development plans; a Building Permit/Development Permit will not be issued until payment has been made. Should a development plan change prior to issuance of the Certificate of Occupancy such that nitrogen export and peak flow calculations must be recalculated and the need for BMPs and/or offset fees redetermined, the site review fee will be reassessed to the developer for the additional review.

| Site Review Fees* | |
|---------------------------|--------------------------------|
| Subdivisions & Commercial | \$200.00 plus \$50.00 per acre |
| One lot residential | \$50.00 |
| BMP annual inspection | \$50.00 plus \$5.00 per BMP |

* Adopted by Wayne County Board of Commissioners as part of 2002 – 2003 Operational Budget.

APPENDIX B
Stormwater Management Ordinance

ARTICLE 100: Legal Authority to Control Illegal Discharges, Stormwater Management for New Development, and Long-Term Maintenance Plan for Structural Best Management Practices (BMPs) (stormwater control facilities).

Section 101. Authority and Enactment.

The Legislature of the State of North Carolina has, in Chapter (T15A), Article (02B), Section (.0235), entitled *Neuse River Basin – Nutrient Sensitive Waters Management Strategy: Basinwide Stormwater Requirements* [hereafter referred to as the Neuse Stormwater Rule], designated specific local governments (including Wayne County) for stormwater management requirements as part of the Neuse River Nutrient Sensitive Waters stormwater management strategy. The *Neuse River Basin: Model Stormwater Program for Nitrogen Control*, dated August 30, 1999, requires the following:

(A) Local governments are required to establish the legal authority to control illegal discharges. By March 2001, each local government is required to show that it has established the legal authority to do the following: (1) Control the contribution of pollutants to the stormwater collection system associated with industrial activity. (2) Prohibit illegal discharges to the stormwater collection system. (3) Prohibit discharge of spills and disposal of materials other than stormwater to the stormwater collection system. (4) Determine compliance and non-compliance. (5) Require compliance and undertake enforcement measures in cases of non-compliance.

(B) All new development projects (as defined in Section 102 and detailed in Article 300) are required to: (1) Meet the goal of a 30 percent reduction in nitrogen loading, (2) Result in no net increase in peak flow leaving a new development site from the predevelopment conditions for the 1-year, 24-hour storm, and (3) Protect riparian areas in accordance with the Riparian Buffer Rule (15A NCAC 2B .0233).

(C) If structural Best Management Practices (BMPs) are implemented to achieve the nitrogen loading and/or flow attenuation requirements for a development, then the local governments must require a maintenance plan for the BMPs (as detailed in Article 400). The county must inspect each BMP on an annual basis.

The Governing Board of Wayne County does hereby ordain and enact into law the following articles as the Stormwater Management Ordinance of Wayne County.

Section 102. Jurisdiction.

(A) The jurisdiction of this Ordinance shall apply to all unincorporated areas in Wayne County (including the southeastern corner of the County, which lies in the Cape Fear Basin) and any local government in which the County provides building inspection services with the follow exclusions: Federal, State, and local governments, including their agencies, unless intergovernmental agreements have been established giving the County enforcement authority. (B) The Stormwater Management for New Development and Long-Term Maintenance of BMPs provisions apply only to development which falls under either of the Neuse Stormwater Rule’s definitions for “New Development” (see Sections 105 and 301).

Section 103. Exception to Applicability. (A and B are from the Watershed Protection Ordinance)

(A) Nothing contained herein shall repeal, modify, or amend any Federal or State law or regulation, or any ordinance or regulations pertaining thereto except any ordinance which these regulations specifically replace; nor shall any provision of this Ordinance amend, modify, or restrict any provisions of the Code of Ordinances of Wayne County; however, the adoption of this Ordinance shall and does amend any and all ordinances, resolutions, and regulations in effect in the county at the time of the adoption of this Ordinance that may be construed to impair or reduce the effectiveness of this Ordinance or to conflict with any of its provisions.

(B) It is not intended that these regulations interfere with any easement, covenants or other agreements between parties. However, if the provisions of these regulations impose greater restrictions or higher standards for the use of a building or land, then the provisions of these regulations shall control.

Section 104. Severability. (From the Watershed Protection Ordinance)

Should any section or provision of this Ordinance be declared invalid or unconstitutional by any court of competent jurisdiction, the declaration shall not affect the validity of this Ordinance as a whole or any part thereof that is not specifically declared to be invalid or unconstitutional.

Section 105. Definitions.

As used in this Ordinance, unless the context clearly indicates otherwise, the following definitions apply:

Illicit connection. Any connection which allows the unlawful discharge of non-stormwater to the stormwater conveyance system or waters of the State in violation of this Ordinance.

Illicit discharge. Any unlawful disposal, placement, emptying, dumping, spillage, leakage, pumping, pouring, emission, or other discharge of any substance other than stormwater into a stormwater conveyance, the waters of the State, or upon the land in such proximity to the same, such that the substance is likely to reach a stormwater conveyance or the waters of the State.

New Development. Any activity that disturbs greater than one acre of land in order to establish, expand, or modify a single family or duplex residential development or a recreational facility. [Land disturbance is defined as grubbing, stump removal, and/or grading.] Any activity that disturbs greater than one-half an acre of land in order to establish, expand, or modify a multifamily residential development or a commercial, industrial, or institutional facility.

Pollutant. Anything which causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, ordinances, and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; and noxious or offensive matter of any kind.

Pollution. Man-made or man-induced alteration of the chemical, physical, biological, thermal, and/or radiological integrity of water.

Stormwater. Any flow resulting from, and occurring during or following, any form of natural precipitation.

Stormwater conveyance or stormwater conveyance system. Any feature, natural or man-made, that collects and transports stormwater, including but not limited to roads with drainage systems, streets, catch basins, curbs, gutters, ditches, man-made and natural channels, pipes, culverts, and storm drains, and any other natural or man-made feature or structure designed or used for collecting or conveying stormwater.

Structural Best Management Practice (BMP). Any structure utilized for reducing nitrogen or peak flow rates from new developments. This may include but is not limited to wet detention ponds, constructed wetlands, open channel practices, riparian buffers, bioretention, vegetated filter strips with level spreader, sand filters, and proprietary BMPs.

Waters of the State. Surface waters within or flowing through the boundaries of the State including the following: any intermittent or perennial stream, river, creek, brook, swamp, lake, sound, tidal estuary, bay, reservoir, wetland, or any other surface water or any portion thereof that is mapped as solid or dashed blue lines on United States Department of the Interior Geological Survey 7.5 minute series topographic maps. Treatment systems, consisting of man-made bodies of water, which were not originally created in waters of the State and which are not the result of impoundment of waters of the State, are not waters of the State.

ARTICLE 200: Legal Authority to Control Illegal Discharges.

Section 201. Purpose.

(A) This article is adopted for the purposes of:

- (1) Protecting the public health, safety and welfare by controlling the discharge of pollutants into the stormwater conveyance system (stormwater ditches);
- (2) Promoting activities directed toward the maintenance and improvement of surface and ground water quality;
- (3) Satisfying the requirements imposed upon the County by the Neuse Stormwater Rule; and
- (4) Establishing administration and enforcement procedures through which these purposes can be fulfilled.

(B) The provisions of this article are supplemental to regulations administered by Federal and State governments.

Section 202. Objectives.

The objectives of this article are to:

(A) Regulate the discharge of substances, which may contaminate or cause pollution of stormwater, stormwater conveyances, or waters of the State; (B) Regulate connections to the stormwater conveyance system; (C) Provide for the proper handling of spills; and (D) Provide for the enforcement of same.

Section 203. Non-Stormwater Discharge Controls.

(A) Illicit discharges.

No person shall cause or allow the discharge, emission, disposal, pouring, or pumping directly or indirectly to any stormwater conveyance, the waters of the State, or upon the land in such proximity to the same (such that the substance is likely to reach a stormwater conveyance or the waters of the State), any fluid, solid, gas, or other substance, other than stormwater; provided that non-stormwater discharges associated with the following activities are allowed provided that they do not significantly impact water quality:

- (1) Filter backwash and draining associated with swimming pools;
- (2) Filter backwash and draining associated with raw water intake screening and filtering devices;
- (3) Condensate from residential or commercial air conditioning;
- (4) Residential vehicle washing;
- (5) Flushing and hydrostatic testing water associated with utility distribution systems;
- (6) Discharges associated with emergency removal and treatment activities, for hazardous materials, authorized by the federal, state, or local government on-scene coordinator;
- (7) Uncontaminated ground water [including the collection or pumping of springs, wells, or rising ground water and ground water generated by well construction or other construction activities];
- (8) Collected infiltrated stormwater from foundation or footing drains;
- (9) Collected ground water and infiltrated stormwater from basement or crawlspace pumps;
- (10) Irrigation water;
- (11) Street wash water;
- (12) Flows from fire fighting;
- (13) Discharges from the pumping or draining of natural watercourses or waterbodies;
- (14) Flushing and cleaning of stormwater conveyances with unmodified potable water;
- (15) Wash water from the cleaning of the exterior of buildings, including gutters, provided that the discharge does not pose an environmental or health threat; and
- (16) Other non-stormwater discharges for which a valid NPDES discharge permit has been approved and issued by DENR.

Prohibited substances include but are not limited to: oil, anti-freeze, chemicals, animal and human waste, paints, garbage, litter, and other pollutants.

(B) Illicit connections.

- (1) Connections to a stormwater conveyance or stormwater conveyance system which allow the discharge of non-stormwater, other than the exclusions described in section (a) above, are unlawful. Prohibited connections include, but are not limited to: floor drains, waste water discharges from washing machines or sanitary sewers, wash water discharges from commercial vehicle washing or steam cleaning, and waste water discharges from septic systems.
- (2) Where such connections exist in violation of Section 204, that were made prior to the adoption of this provision or any other ordinance prohibiting such connections, the property owner or the person using the connection is allowed one (1) year to remove the connection following application of this regulation; provided that, this grace period shall not apply to connections which may result in the discharge of hazardous materials or other discharges which pose an immediate threat to health and safety, or are likely to result in immediate injury and harm to real or personal property, natural resources, wildlife, or habitat.
- (3) Where it is determined that said connection:
 - (a) May result in the discharge of hazardous materials or may pose an immediate threat to health and safety, or is likely to result in immediate injury and harm to real or personal property, natural resources, wildlife, or habitat, or
 - (b) Was made in violation of any applicable regulation or ordinance, the County Planning Director or his designee shall designate the time within which the connection shall be removed. In setting the time limit for compliance, the County shall take into consideration: the quantity and complexity of the work, the consequences of delay, the potential harm to the environment, to the public health, and to public and private property, and the cost of remedying the damage.

(C) Spills.

Spills or leaks of polluting substances discharged to, or having the potential to be indirectly transported to the stormwater conveyance system, shall be contained, controlled, collected, and removed promptly. All affected areas shall be restored to their preexisting condition.

Persons associated with the spill or leak shall immediately notify the County Emergency Management Office of all spills or leaks of polluting substances. Notification shall not relieve any person of any expenses related to the clean-up, restoration, loss, damage, or any other liability which may be incurred as a result of said spill or leak, nor shall such notification relieve any person from other liability which may be imposed by State or other law.

Section 204. Inspections.

The County Building Inspector, and/or Environmental Health Supervisor (or other authorized agent of the County) has full power and authority to enter upon a premise for the purpose of investigating an illegal discharge(s). Should the owner or occupant of any property refuse to permit such reasonable access, the County Planning Director or his designee may obtain an administrative search warrant pursuant to G.S. 15-27.2 or its successor.

No person shall obstruct, hamper or interfere with any such representative while carrying out his official duties.

Section 205. Civil Penalties.

(A) Illicit discharges.

Any person who allows or assists in a violation of this Ordinance shall be subject to civil penalties as follows:

- (1) For first time offenders, if the discharge consists of domestic or household products in quantities considered ordinary for household purposes, said person shall be assessed a civil penalty not to exceed one hundred dollars (\$100.00) per violation or per day for any continuing violation. If the discharge contains non-domestic substances, including but not limited to process waste water, or if said person cannot provide clear and convincing evidence of the volume and nature of the substance discharged, said person shall be assessed a civil penalty not to exceed one thousand dollars (\$1,000.00) per violation or per day for any continuing violation.
- (2) For repeat offenders, the amount of the penalty shall be double the amount assessed for the previous penalty, not to exceed ten thousand dollars (\$10,000.00) per violation or per day for any continuing violation.

(B) Illicit connections.

Any person found with an illicit connection in violation of this ordinance and any other person who assists in the establishment of an illicit connection in violation of this ordinance, shall be subject to civil penalties as follows:

- (1) First time offenders shall be subject to a civil penalty not to exceed five hundred dollars (\$500.00) per day of continuing violation.
- (2) Repeat violators shall be subject to a civil penalty not to exceed one thousand dollars (\$1,000.00) per day of continuing violation.

(C) Other violations.

Any person found in violation of other provisions of this ordinance, not specifically enumerated elsewhere, shall be subject to a civil penalty not to exceed one hundred dollars (\$100.00) per violation or per day for any continuing violation.

(D) Payment/collection procedures.

Penalties shall be assessed by the County Planning Director or his designee. No penalty shall be assessed until the person alleged to be in violation is served written notice of the violation by registered mail, certified mail-return receipt requested, or personal service (such as express mail service or courier). Refusal to accept the notice shall not relieve the violator of the obligation to pay the penalty. The County Planning Director or his designee shall make written demand for payment upon the person in violation. If the payment is not received or equitable settlement reached within thirty (30) days after demand for payment is made, the matter shall be referred to the County Attorney for institution of a civil action in the name of the County, in the appropriate division of the general court of justice in Wayne County for recovering the penalty.

Section 206. Injunctive relief.

(A) Wayne County may petition the General Court of Justice in Wayne County seeking injunctive relief, or other relief as deemed appropriate, to require compliance with this Ordinance. Cost of such action shall be assessed against the individual who is failing to comply with this Ordinance.

(B) The institution of an action for injunctive relief under Section 207 shall not relieve any party to such proceeding from any further civil or criminal penalty prescribed for violations of this Code.

Section 207. Criminal penalties.

Any person who knowingly or willfully violates any provision of this ordinance, rule, regulation, order duly adopted or issued pursuant to this ordinance shall be guilty of a misdemeanor, punishable by a fine not to exceed five hundred dollars (\$500.00). Each violation shall be a separate offense.

ARTICLE 300: Stormwater Management for New Development.

Section 301. Nutrient Reduction Requirements.

(A) **New Development/Land Disturbance.** Any person, corporation, or other entity who proposes to engage in new development or land disturbing activity as defined in this section shall obtain a Development Permit from the Wayne County Planning Department. Each Development Permit issued shall become invalid if the work authorized by it has not been commenced within six (6) months of the date of issuance, or if the work authorized by it is suspended or abandoned for a period of one (1) year (unless the Planning Board determines that the delay was beyond the control of the person, corporation, or other entity).

As defined in Section 105, new development or land disturbance is:

- (1) Any grubbing, stump removal and/or grading activity that disturbs greater than one acre of land in order to establish, expand or modify a single family or duplex residential development or a recreational facility.
- (2) Any grubbing, stump removal and/or grading activity that disturbs greater than one-half acre of land in order to establish, expand or modify a multifamily residential development or a commercial, industrial or institutional facility.

(B) **Exemptions.** Agriculture, mining or forestry activities are not subject to the new development requirements of this chapter.

(C) **Vested Rights.** Property owners that can demonstrate that they have vested rights as of the effective date of this ordinance will not be subject to the requirements for new development. Vested rights may be based on at least one of the following:

- (1) Substantial expenditures of resources as determined by the County Planning Board (time, labor, and money) based on a good faith reliance upon having received a valid local government approval to proceed with the project, or
- (2) Having an outstanding valid building permit in compliance with G.S. 153A-344.1 or G.S. 160A-385.1, or
- (3) Having an approved site specific or phased development plan in compliance with G.S. 153A-344.1 or G.S. 160A-385.1.

Projects that require state permits, such as landfills, NPDES wastewater discharges, land application of residuals and road construction activities shall be considered to have vested rights if a state permit was issued prior to the effective date of this ordinance.

(D) **Calculation of Nitrogen Export.** The nitrogen export from each development must be calculated. This export will be calculated in pounds per acre per year (lb/ac/yr). The following methodologies will be used for calculating nitrogen export from new development (refer to the *Wayne County Stormwater Management Program for Nitrogen Control in The Neuse River Basin* for calculating nitrogen export loading):

- (1) Method 1 is intended for residential developments where lots are shown, but the actual footprints of buildings are not shown on the plans.
- (2) Method 2 is for residential, commercial, and industrial developments when the entire footprint of the roads, parking lots, buildings, and any other built-upon area is shown on the site plans.
- (3) For nonresidential subdivisions where the impervious surfaces are not shown on the plans at the time of submittal, the developer or builder will specify areas of impervious surface, undisturbed open space, and managed open space in their Development Permit application, assuming the maximum impervious surfaces and minimum open space for the project design. The developer or builder will then use Method 2 for their calculation.
- (4) For redevelopment projects, Method 2 must be used to estimate the nitrogen loading from the site before and after the redevelopment project takes place. As long as the redevelopment project does not increase the nitrogen loading from the site, the developer shall be exempt from the program requirements for nitrogen control on new development.

(E) Nitrogen Export Standards. All new development will be limited to a nitrogen export of 3.6 pounds per acre per year (lbs/ac/yr). Property owners will have the option to partially offset projected nitrogen loads by funding wetland or riparian area restoration through the NC Wetlands Restoration Program. As established by Rule 15A NCAC 2B .0240, the rate shall be \$11/lb/yr, at an amount sufficient to fund 30 years of nitrogen reduction. The result is a one-time offset payment of \$330/lb/ac, which must be paid prior to approval of the development plan. However, no new residential development will be permitted to exceed a total nitrogen-loading rate of 6.0 lbs/ac/yr, and no new nonresidential development will be permitted to exceed 10.0 lbs/ac/yr. If the development contributes greater than 3.6 pounds per acre per year of nitrogen, then the table below summarizes the options available depending upon whether the development is residential or non-residential. Any changes to the nitrogen export standards approved by the Environmental Management Commission will be adopted by reference.

Nitrogen Export Reduction Options

| Residential | Commercial/Industrial |
|---|---|
| <p>If the computed export is less than 6.0 lbs/ac/yr then the owner may either: Install BMPs to remove enough nitrogen to bring the development down to 3.6 lbs/ac/yr. Pay a one-time offset payment of \$330/lb/ac/yr to bring the nitrogen down to the 3.6 lbs/ac/yr. Do a combination of BMPs and offset payment to achieve a 3.6 lbs/ac/yr export.</p> | <p>If the computed export is less than 10.0 lbs/ac/yr, then the owner may either: Install BMPs to remove enough nitrogen to bring the development down to 3.6 lbs/ac/yr. Pay a one-time offset payment of \$330/lb to bring the nitrogen down to the 3.6 lbs/ac/yr. Do a combination of BMPs and offset payment to achieve a 3.6 lbs/ac/yr export.</p> |
| <p>If the computed export is greater than 6.0 lbs/ac/yr, the owner must use on-site BMPs to bring the development's export down to 6.0 lbs/ac/yr. Then, the owner may use one of the three options above to achieve the reduction between 6.0 and 3.6 lbs/ac/yr.</p> | <p>If the computed export is greater than 10.0 lbs/ac/yr, the owner must use on-site BMPs to bring the development's export down to 10.0 lbs/ac/yr. Then, the owner may use one of the three options above to achieve the reduction between 10 and 3.6 lbs/ac/yr.</p> |

If an offset payment is being made to the Wetlands Restoration Program, the owner must provide the County with evidence that DWQ has received payment prior to the County's issuance of a Development Permit.

Section 302. Peak Runoff Control.

There shall be no net increase in peak stormwater runoff flow leaving a new development site from the predevelopment conditions for the 1-year, 24-hour storm as determined by calculating the pre- and post-development runoff in accordance with the *Wayne County Stormwater Management Program for Nitrogen Control in The Neuse River Basin*.

The Rational Method is the most common method for computing the peak rate of runoff from small drainage basins (up to 150 acres). It will be used to determine the peak flow from both the pre-development (performed prior to issuance of the Development Permit) and post-development (performed prior to issuance of the Certificate of Occupancy) conditions. If peak runoff needs to be calculated for a larger drainage area (more than 150 acres), the Peak Discharge Method as described in the USDA Soil Conservation Service's Technical Release Number 55 (TR-55) will be employed for computing the pre- and post-development conditions.

Section 303. Protecting Riparian Buffers.

(A) Establishment of Buffer. Riparian areas must be protected on new developments in accordance with the Riparian Buffer Rule (15A NCAC 2B .0233). The rule requires for protecting and maintaining the 50-foot riparian buffers on all sides of intermittent and perennial streams, ponds, lakes, and estuaries in the Neuse River Basin. These waters must be shown on the most recent version of either a Natural Resources Conservation Service (NRCS) Soil Survey county map or a 1:24,000 scale (7.5-minute quadrangle) topographic map prepared by the US Geological Survey (USGS).

Wayne County will refrain from issuing local approvals for any new development activity that is proposed to take place within the first 50 feet adjacent to an affected water body, unless:

- (1) The person requesting the approval does not proposed to impact the riparian buffer of a surface water indicated on the NRCS or USGS maps listed above, or
- (2) The property owner had received approval by DWQ. DWQ approval could be:
 - (a) An on-site determination from DWQ that surface waters are not present,
 - (b) An Authorization Certificate for a use designated as allowable,

- (c) An Authorization Certificate and approval on a mitigation plan for a use designated as Allowable with Mitigation, or
- (d) A variance.

(B) Description of Buffers on Development Plans. Riparian areas to be protected will be recorded on new or modified plats. If the plat shows an encroachment into a riparian buffer, the appropriate DWQ approval must accompany the preliminary and final plat submission.

Section 304. Allowable Best Management Practices.

The following best management practices may be utilized for nitrogen reduction:

Wet detention ponds, Constructed wetlands, Open channel practices, Riparian buffers, Bioretention, Vegetated filter strips with level spreader, Sand filters, Proprietary BMPs

The total nitrogen (TN) BMP removal rates to be used in calculating nitrogen reductions are provided in the table below. Any state-approved modifications or additions to the list of BMPs available for nitrogen reduction and/or determinations of TN removal rates are adopted by reference.

BMP Types, TN Removal Rates and Design Standards

| BMP Types | TN Removal Rate based on Current Literature Studies | Design Standards |
|---|---|---|
| Wet detention ponds | 25% | NC and MD Design Manuals |
| Constructed wetlands | 40% | NC and MD Design Manuals |
| Open channel practices | 30% | NC and MD Design Manuals |
| Riparian buffers | 30% | Neuse Riparian Buffer Rule (15A NCAC2B.0233) |
| Bioretention | 25% | NC and MD Design Manuals |
| Vegetated filter strips with level spreader | 20% | NC and MD Design Manuals and other literature information |
| Sand Filters | 35% | NC and MD Design Manuals |
| Proprietary BMPs | Varies | Per manufacturer subject to DWQ approval |

If more than one BMP is installed in series on a development, then the removal rate shall be determined through serial rather than additive calculations. For example, if a wet detention pond discharges through a riparian buffer, then the removal rate shall be estimated to be 47.5 percent. The pond removes 25 percent of the nitrogen and discharges 75 percent into the buffer. The buffer then removes 30 percent of the nitrogen discharged from the pond, which is 22.5 percent. The sum of 25 and 22.5 is 47.5. The removal rate is not 25 percent plus 30 percent.

Section 305. Maintenance of Best Management Practices.

All best management practices that are implemented to achieve nitrogen reduction and flow attenuation will require a maintenance plan. Article 400 details the provisions for the Long-Term Maintenance Plan for Structural Best Management Practices (BMPs).

Section 306. Development Permit and Development Permit Review Fees.

(A) As of the effective date of the adoption of this ordinance, any builder applying for a Development Permit must submit his calculations for nitrogen loading and peak runoff with both the preliminary and final plats. Application for a Development Permit constitutes a certification by the developer or builder that all provisions of this ordinance have been fully met and that the calculations for nitrogen loading and peak runoff, as shown on the preliminary and final plats, are correct. Any BMP requiring engineering design will have the engineer’s seal and signature affixed to the design drawing, and the engineer’s seal will attest that the design for the BMP was completed in accordance with good engineering practices.

(B) The County Planning Board may set a fee structure for the cost of reviewing all Development Permit applications for compliance with this ordinance, and the fee schedule will be as shown in the *Wayne County Stormwater Management Program for Nitrogen Control in the Neuse River Basin*.

(C) No person, corporation, or other entity shall develop or disturb land except pursuant to an approved Development Permit and this ordinance. Failure to comply with the provisions of this ordinance and the

Development Permit will constitute a violation of this ordinance and will be subject to the provisions of Section 307. Each day the violation exists shall be considered a separate and distinct offense.

Section 307. Enforcement.

(A) **Criminal Penalties.** Any person who is found in violation of any provision of this ordinance, rule, regulation, order duly adopted or issued pursuant to this ordinance shall be guilty of a misdemeanor, punishable by a fine not to exceed five hundred dollars (\$500.00). Each violation shall be a separate offense.

(B) **Order to Correct Violation.** Upon a determination that such a violation exists, the Building Inspector or his designee shall notify, in writing, the owner of the premises and shall order the prompt correction thereof. The owner will be allowed 180 days from the receipt of such written notice to comply with the provisions of this article.

(C) **Failure to Correct Violation; Correction by County.** If any person, having been ordered to correct a known violation of this article, fails, neglects, or refuses to correct the condition(s) within 180 days from receipt of the order, the Planning Director shall have employees of the County or other designated persons go upon said premises and perform the necessary work to bring the development into compliance with the provisions of this article.

(D) **Cost of Correction.** The actual cost incurred by the County to bring the development into compliance with the provisions of this article shall be charged to the owner of the development. They will be mailed a statement of charges with instructions that such charges are due and payable within 30 days from the receipt thereof.

(E) **Failure to Pay Charges; Lien Created.** In the event charges for the correction of the violation are not paid within 30 days after the receipt of a statement of charges as provided in 307 (D) above, such charges shall become a lien upon the land or premises where the violation existed and shall be collected as unpaid taxes, as provided in G.S. § 160A-193. In the event the person or persons found in violation of this ordinance have divested themselves of the land or premise where the violation existed, the County may pursue the responsible person or persons for payment of the charges through other legal means.

(F) **Procedure Deemed Additional to Other Remedies.** The procedure set forth in this subchapter shall be in addition to any other remedies that may now or hereafter exist under law for the correction of such violations as outlined in this article and this subchapter shall not prevent the County from proceeding in a criminal action against any person, firm, or corporation violating the provisions of this subchapter as provided in G.S. § 14-4.

ARTICLE 400: Long-Term Maintenance Plan for Structural Best Management Practices (BMPs).

Section 401. Long-Term BMP Maintenance Requirements.

Structural BMPs may be required to comply with the nitrogen reduction and peak flow provisions of the Neuse Stormwater Rule. BMPs should be constructed on the same lot as the new development, with the property owner assuming responsible for the long-term maintenance. In the event that a BMP is severed from the original site it was designed for (such as by the division of the original site, sale of a portion of the original site, or construction of a road through the site), a substitute BMP must be constructed to fulfill the nitrogen and/or peak flow reduction capabilities of the original BMP.

The subdivider shall form a homeowners association or some similar type organization to provide for the continuing maintenance of any structural BMPs, which must be installed to insure that any storm water system properly operates. The organization so formed shall be required to maintain said BMP and shall have the means by which to maintain said system. The restrictive covenants in the subdivision must make reference to the requirement stated herein.

Wayne County will notify the owner upon finding that a BMP is operating improperly and in need of maintenance. If the owner does not complete the maintenance himself in a timely manner, then the County will contract out the maintenance itself and recover costs in the manner it determines most appropriate.

Section 402. Inspections.

(A) The Building Inspector (or other authorized agent of the County) has full power and authority to enter upon a premise housing a BMP for the purpose of inspecting the BMP on an annual basis. The Board of Commissioners has established an annual inspection fee of \$100 per site to fund this additional inspection program.

(B) In addition, the Building Inspector may enter the site as necessary to document improperly operating BMPs, follow up on scheduled maintenance activities, or to conduct maintenance themselves.

Section 403. Order to Perform Maintenance.

The Building Inspector will notify the owner of the premises where the BMP is located, in writing that maintenance is required. The owner will have 90 days from the receipt of such written notice to bring the BMP into proper working order.

Section 404. Failure to Perform Maintenance; Maintenance by County.

If any person, having been ordered to perform such maintenance, fails, neglects, or refuses to perform such maintenance with 90 days from receipt of the order, the Planning Director shall have employees of the County or other designated persons go upon said premises and perform the necessary maintenance.

Section 405. Cost of Abatement.

The actual cost incurred by the County in performing the necessary BMP maintenance shall be charged to the owner of the land containing the BMP. They will be mailed a statement of charges with instructions that such charges are due and payable within 30 days from the receipt thereof.

Section 406. Failure to Pay Charges; Lien Created.

In the event charges for the maintenance of an improperly operating BMP are not paid within 30 days after the receipt of a statement of charges as provided in Section 305, such charges shall become a lien upon the land or premises where the improperly operating BMP existed and shall be collected as unpaid taxes, as provided in G.S. § 160A-193.

Section 407. Procedure Deemed Additional to Other Remedies.

The procedure set forth in this subchapter shall be in addition to any other remedies that may now or hereafter exist under law for the maintenance of structural BMPs and this subchapter shall not prevent the County from proceeding in a criminal action against any person, firm, or corporation violating the provisions of this subchapter as provided in G.S. § 14-4.

This ordinance adopted the 20th day of March 2001 by the Wayne County Board of Commissioners, shall take effect and be in force from and the date of adoption.

AtlasPrice
Chairman
Wayne County Board of Commissioners

Marcia Wilson
Clerk
Wayne County Board of Commissioners