

Stormwater Management Plan

City of Goldsboro

NCS000396

07/15/24



NCS000396 SWMP
City of Goldsboro
July 15, 2024
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PART 1: INTRODUCTION

The purpose of this Stormwater Management Plan (SWMP) is to establish and define the means by which the City of Goldsboro will comply with its National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit and the applicable provisions of the Clean Water Act to meet the federal standard of reducing pollutants in stormwater runoff to the maximum extent practicable.

This SWMP identifies the specific elements and minimum measures that the City of Goldsboro will develop, implement, enforce, evaluate and report to the North Carolina Department of Environmental Quality (NCDEQ) Division of Energy, Minerals and Land Resources (DEMLR) in order to comply with the MS4 Permit number NCS000396, as issued by NCDEQ. This permit covers activities associated with the discharge of stormwater from the MS4 as owned and operated by the City of Goldsboro and located within the city limits as well as the ETJ of the City of Goldsboro.

In preparing this SWMP, the City of Goldsboro has evaluated its MS4 and the permit requirements to develop a comprehensive 5-year SWMP that will meet the community's needs, address local water quality issues and provide the minimum measures necessary to comply with the permit. The SWMP will be evaluated and updated annually to ensure that the elements and minimum measures it contains continue to adequately provide for permit compliance and the community's needs.

Once the SWMP is approved by NCDEQ, all provisions contained and referenced in this SWMP, along with any approved modifications of the SWMP, are incorporated by reference into the permit and become enforceable parts of the permit. Any major changes to the approved SWMP will require resubmittal, review and approval by NCDEQ, and may require a new public comment period depending on the nature of the changes.

PART 2: CERTIFICATION

By my signature below I hereby certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

I am also aware that the contents of this document shall become an enforceable part of the NPDES MS4 Permit, and that both the Division and the Environmental Protection Agency have NPDES MS4 Permit compliance and enforcement authority.

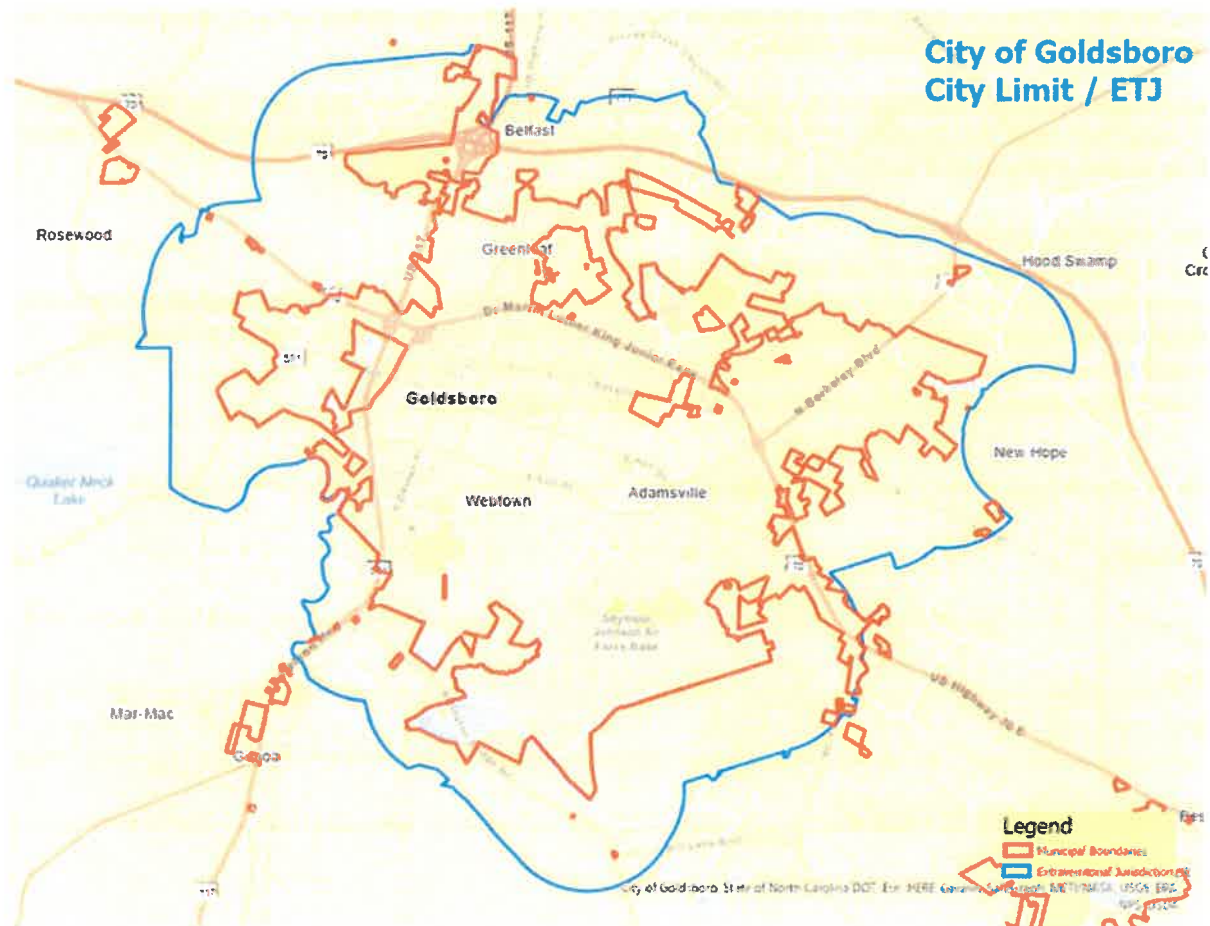
- ☐ I am a ranking elected official.
- ☐ I am a principal executive officer for the permitted MS4.
- ☐ I am a duly authorized representative for the permitted MS4 and have attached the authorization made in writing by a principal executive officer or ranking elected official which specifies me as (*check one*):
- ☐ A specific individual having overall responsibility for stormwater matters.
- ☐ A specific position having overall responsibility for stormwater matters.

<i>Signature:</i>	
<i>Print Name:</i>	
<i>Title:</i>	
Signed this ____ day of 20____.	

PART 3: MS4 INFORMATION

3.1 Permitted MS4 Area

This SWMP applies throughout both the city limits of City of Goldsboro as well as its ETJ, including all regulated activities associated with the discharge of stormwater from the jurisdiction. The enclosed map shows the area regulated by the jurisdiction for implementation of the Neuse Nutrient Management Strategy as of the date of this document



3.2 Existing MS4 Mapping

The current MS4 mapping includes water distribution pipes, sanitary sewage system, stormwater drainage system, outfalls and associated appurtenances

Table 1: Summary of Current MS4 Mapping

Percent of MS4 Area Mapped	90	%
No. of Major Outfalls* Mapped	170	total

**An outfall is a point where the MS4 discharges from a pipe or other conveyance (e.g. a ditch) directly into surface waters. Major outfalls are required to be mapped to meet permit requirements. A major outfall is a 36-inch diameter pipe or discharge from a drainage area > 50-acres; and for industrial zoned areas a 12-inch diameter pipe or a drainage area $\geq$ 2-acres.*

3.3 Receiving Waters

The City of Goldsboro is located within the Neuse River Basin and discharges directly into receiving waters as listed in Table 2 below. Applicable water quality standards listed below are compiled from the following NCDEQ sources:

- [Waterbody Classification Map](#)
- [Impaired Waters and TMDL Map](#)
- [Most recent NCDEQ Final 303\(d\) List](#)

Table 2: Summary of MS4 Receiving Waters

Receiving Stream Name	Stream Segment	Water Quality Classification	Use Support Rating	303(d) Listed Parameter(s) of Interest
Neuse River	Goldsboro WS intake to Coxes Creek 27-(56)	C; NSW	FS	
Smith Mill Run	Source to Little River 27-57-21	WS-IV; NSW	FS	
Little River	Spring Branch to .6 mile DS of Smith Will Run 27-57-(20.2)	WS-IV; NSW	FS	
	.6 mile DS of Smith Will Run to Goldsboro WS intake 27-57-(21.1)	WS-IV; NSW, CA	FS	
	Goldsboro WS Intake to US Hwy 70 27-57-(21.1)	C; NSW	FS	
	US Hwy 70 DS to 1 mile from US Hwy 70 27-57-(21.4)	B; NSW	FS	
	1 mile DS from US Hwy 70 to	C; NSW	FS	

	Neuse River 27-57-(22)			
Stoney Creek	Source to Neuse River 27-62	C; NSW	FS	
Howell Creek	Source to Stoney Creek 27-62-1	C; NSW	NR	
Reedy Branch	Source to Stoney Creek 27-62-2	C; NSW	NR	
Billy Branch	Source to Stoney Creek 27-62-3	C; NSW	NR	
Big Ditch	Source to Neuse River 27-58	C; NSW	FS	
Old Mill Branch (Mills Pond)	Source to West Bear Creek 27-72-2-1	C; SW; NSW	NR	

3.4 MS4 Interconnection

The City of Goldsboro MS4 is not interconnected with another regulated MS4 and directly discharges to the receiving waters as listed in Table 2 above.

3.5 Total Maximum Daily Loads (TMDLs)

The TMDL(s) listed in Table 3 below have been approved within the MS4 area, as determined by the map and list provided on the [NCDEQ Modeling & Assessment Unit web page](#). The table also indicates whether the approved TMDL has a specific stormwater Waste Load Allocation (WLA) for any watershed directly receiving discharges from the permitted MS4, and whether a Water Quality Recovery Program has been implemented to address the WLA.

Table 3: Summary of Approved TMDLs

Water Body Name	TMDL Pollutant(s) of Concern	Stormwater Waste Load Allocation (Y/N)	Water Quality Recovery Program (Y/N)
Little River	Nitrogen	N	N
Neuse	Nitrogen	N	N

The City of Goldsboro will evaluate strategies and tailor SCMs within the scope of the six minimum measures under the auspices of the Neuse Nutrient Management Strategy which is part of this SWMP.

3.6 Endangered and Threatened Species and Critical Habitat

Significant populations of threatened or endangered species and/or critical habitat are identified within the regulated MS4 urbanized area. Based upon a review of the Endangered and Threatened Species and Species of Concern by County for North Carolina Map and Listed species believe to or known to occur in North Carolina map as provided by the U.S. Fish and Wildlife Service, the species listed in Table 4 have the potential to occur within the regulated MS4 urbanized area. Of those species listed, Table 4 summarizes the species that may be significantly impacted by the quality of surface waters within their habitat.

Table 4: Potential Federally Listed Species/Habitat Impacted by Surface Water Quality

Scientific Name	Common name	Species Group	Federal Listing Status
<i>Elliptio lanceolata</i>	Yellow lance	Clams	Threatened
<i>Necturus lewisi</i>	Neuse River waterdog	Amphibians	Threatened
<i>Picoides borealis</i>	Red-cockaded woodpecker	Birds	Endangered
<i>Alasmidonta heterodon</i>	Dwarf wedgemussel	Clams	Endangered
<i>Noturus furiosus</i>	Carolina madtom	Fishes	Endangered
<i>Elliptio steinstansana</i>	Tar River spiny mussel	Clams	Endangered

3.7 Industrial Facility Discharges

The City of Goldsboro jurisdictional area includes the following industrial facilities which hold NPDES Industrial Stormwater Permits, as determined from the NCDEQ Maps & Permit Data web page.

Table 5: NPDES Stormwater Permitted Industrial Facilities

Permit Number	Facility Name
NCG080665	Central Maintenance Facility
NCG110024	Compost Facility
NCG080371	UPS Goldsboro
NCG050206	Cooper Standard Automotive Inc.
NCG060265	Gruma Corp
NCG140015	Southern Equipment Company
NCG140401	Southern Equipment Company
NCG080864	Moffet Oil Company
NCG200343	Elite Narco II LLC
NCG030301	AP Emission Technologies LLC
NCG060111	Franklin Baking Co
NCG200348	NC Salvage Co Inc..

3.8 Non-Stormwater Discharges

The water quality impacts of non-stormwater discharges have been evaluated by the City of Goldsboro as summarized below. The unpermitted non-stormwater flows listed as incidental do not significantly impact water quality. The City of Goldsboro has evaluated residential and charity car washing and street washing for possible significant water quality impacts and found they do not contribute a significant discharge at this time..

Street washing discharges are addressed under the Pavement Management Program.

Wash water associated with car washing that does not contain detergents or does not discharge directly into the MS4 is considered incidental. However, these types of non-stormwater discharges that do contain detergents have not been evaluated by the City of Goldsboro to determine whether they may significantly impact water quality.

Table 6: Non-Stormwater Discharges

Non-Stormwater Discharge	Water Quality Impacts
Water line and fire hydrant flushing	Incidental
Landscape irrigation	Incidental
Diverted stream flows	Incidental
Rising groundwater	Incidental
Uncontaminated groundwater infiltration	Incidental
Uncontaminated pumped groundwater	Incidental
Uncontaminated potable water sources	Incidental
Foundation drains	Incidental
Air conditioning condensate	Incidental
Irrigation waters	Incidental
Springs	Incidental
Water from crawl space pumps	Incidental
Footing drains	Incidental
Lawn watering	Incidental
Residential and charity car washing	Incidental
Flows from riparian habitats and wetlands	Incidental
Dechlorinated swimming pool discharges	Incidental
Street wash water	Incidental
Flows from firefighting activities	Incidental

3.9 Target Pollutants and Sources

In addition to those target pollutants identified above, the City of Goldsboro is not aware of other significant water quality issues within the permitted MS4 area.

Table 7 below summarizes the water quality pollutants identified throughout Part 3 of this SWMP, the likely activities/sources/targeted audiences attributed to each pollutant, and identifies the associated SWMP program(s) that address each. In addition, the City of Goldsboro has evaluated schools, homeowners and businesses as target audiences that are likely to have significant stormwater impacts.

Table 7: Summary of Target Pollutants and Sources

Target Pollutant(s)	Likely Source(s)/Target Audience(s)	SWMP Program Addressing Target Pollutant(s)/Audience(s)
Nitrogen Runoff	New Development and Developers	Construction Site Runoff and Post-Construction Site Runoff Control
Nitrogen Runoff	Design Engineers	Public Education and Outreach
Industrial Pollution	Local Industry	Public Education and Outreach
Sediment	Construction Sites and Project Managers	Construction Site Runoff
Fecal Coliform	City Staff from Public Utilities and Public Works	Pollution Prevention and Good Housekeeping
Petroleum Products	Homeowners, Residents, Service Stations	IDDE and Public Education
Fertilizer	City Services (Golf Course, Cemeteries)	Pollution Prevention and Good Housekeeping
Fertilizer	Homeowners	Public Education

1

The City of Goldsboro operates under the City Manager who is appointed by the Mayor/City Council. Within the City, the Engineering Director has primary responsibility for the Stormwater Management Plan. The Director of Public Works manages the Stormwater Utility Fund and is responsible for the MS4/City Stormwater System operation and maintenance. He also manages the Dry Weather Screening under the Illicit Discharge Detection and Elimination (IDDE) program.

City of Goldsboro Organization Chart



Table 8: Summary of Responsible Parties

SWMP Component	Responsible Position	Department
Stormwater Program Administration	Engineering Director / Designee	Engineering
SWMP Management	Engineering Director / Designee	Engineering
Public Education & Outreach	CWEP representative	Engineering
Public Involvement & Participation	CWEP representative	Engineering
Illicit Discharge Detection & Elimination	Public Works Director / Designee	Public Works
Construction Site Runoff Control	NCDEMLR	Engineering
Post-Construction Stormwater Management	Engineering Director / Designee	Engineering
Pollution Prevention/Good Housekeeping for Municipal Operations	Public Works Director / Designee	Public Works
Municipal Facilities Operation & Maintenance Program	Public Works Director / Designee	Public Works
Spill Response Program	Public Works Director / Designee	Public Works
MS4 Operation & Maintenance Program	Public Works Director / Designee	Public Works
Municipal SCM Operation & Maintenance Program	Engineering Director / Designee	Engineering
Pesticide, Herbicide & Fertilizer Management Program	Public Works Director / Designee	Public Works
Vehicle & Equipment Cleaning Program	Public Works Director / Designee	Public Works
Pavement Management Program	Public Works Director / Designee	Public Works
Total Maximum Daily Load (TMDL) Requirements	Engineering Director / Designee	Engineering

4.2 Program Funding and Budget

In accordance with the issued permit, the City of Goldsboro shall maintain adequate funding and staffing to implement and manage the provisions of the SWMP and comply with the requirements of the NPDES MS4 Permit.

For the 2021-22 fiscal year, the budget for the stormwater division is around 1 million dollars with 1.5 million being collected annually from the stormwater utility fee, the overages going into special projects and construction related items. This stormwater fee is outlined in appendix F.

4.3 Shared Responsibility

The City of Goldsboro will share the responsibility to implement the following Stormwater Control Measures. The City remains responsible for compliance if the other entity fails to perform the Local Program obligation and may be subject to enforcement action if neither the City nor the other entity fully performs the Local Program obligation. The table below summarizes who will be implementing the component, what the component program is called, the specific Local Program SCM or requirement that is being met by the shared responsibility, and whether a legal agreement to share responsibility is in place.

Table 9: Shared Responsibilities

SWMP SCM or Permit Requirement	Implementing Entity & Program Name	Legal Agreement (Y/N)
Construction Site Runoff Control	The City relies upon to NC DEQ Division of Energy, Mineral, and Land Resources (DEMLR) Erosion and Sediment Control Program as administered by them and the General Permit Requirements for Construction Discharges that occur from land disturbing activities.	Y
Public Education and Outreach	Clean Water Education Partnership	Y

4.4 Co-Permittees

There are no other entities applying for co-permittee status under the NPDES MS4 permit number NCS000396 for the City of Goldsboro. Table 10 summarizes contact information for each co-permittee.

Table 10: Co-Permittee Contact Information

Co-Permittee MS4 Name	Contact Person	Phone & E-Mail	Interlocal Agreement (Y/N)
N/A	N/A	N/A	N/A

4.5 Measurable Goals for Program Administration

The City of Goldsboro will manage and report the following Best Management Practices (SCMs) for the administration of the Stormwater Management Program.

Table 11: Program Administration SCMs

Permit Ref.	2.1.2 and Part 4: Annual Self-Assessment Measures to evaluate the performance and effectiveness of the SWMP program components at least annually. Results shall be used by the permittee to modify the program components as necessary to accomplish the intent of the Stormwater Program. The self-assessment reporting period is the fiscal year (July 1 – June 30).			
SCM No.	A Description of SCM	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
#.	Annual Self-Assessment			
	Perform an annual evaluation of SWMP implementation, suitability of SWMP commitments and any proposed changes to the SWMP utilizing the NCDEQ Annual Self-Assessment Template.	1. Prepare, certify and submit the Annual Self-Assessment to NCDEQ prior to August 31 each year.	1. Annually Permit Years 1 – 4	1. Yes/No
Permit Ref.	1.6: Permit Renewal Application Measures to submit a permit renewal application no later than 180 days prior to the expiration date of the NPDES MS4 permit.			
SCM No.	A Description of SCM	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
#.	Permit Renewal Application			
	Audit stormwater program implementation for compliance with the permit and approved SWMP, and utilize the results to prepare and submit a permit renewal application package.	1. Participate in an NPDES MS4 Permit Compliance Audit, as scheduled and performed by EPA or NCDEQ.	1. TBD – Typically Permit Year 4	1. Yes/No
		2. Self-audit and document any stormwater program components not audited by EPA or NCDEQ utilizing the DEQ Audit Template. Submit Self-Audit to DEMLR (required component of permit renewal application package).	2. Permit Year 5	2. Yes/No/Partial
		3. Certify the stormwater permit renewal application (Permit renewal application form, Self-Audit, and Draft SWMP for the next 5-year permit cycle) and submit to NCDEQ at least 180 days prior to permit expiration.	3. Permit Year 5	3. Date of permit renewal application submittal

PART 5: PUBLIC EDUCATION AND OUTREACH PROGRAM

The City of Goldsboro will implement a Public Education and Outreach Program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and steps the public can take to reduce pollutants in storm water runoff.

The target audiences and identified pollutants listed in Part 3.9 of this SWMP, which will be addressed by the Public Education and Outreach Program, are summarized in Table 12 below. In addition, the City of Goldsboro is required to inform businesses and the general public of the hazards associated with illicit discharges, illegal dumping and improper disposal of waste.

Table 12: Summary of Target Pollutants & Audiences

Target Pollutant/Sources	Target Audiences
Nitrogen Runoff	New Development and Developers
Nitrogen Runoff	Design Engineers
Industrial Pollution	Local Industry
Sediment	Construction Sites and Project Managers
Fecal Coliform	City Staff from Public Utilities and Public Works
Petroleum Products	Homeowners, Residents, Service Stations
Fertilizer	City Services (Golf Course, Cemeteries)
Fertilizer	Homeowners

The City of Goldsboro will manage, implement and report the following public education and outreach SCMs.

5.1 Public Education Action Plan

The Neuse Stormwater Rule requires that Goldsboro develop a locally administered environmental education program (a Public Education Action Plan) to address nitrogen loading issues. This Action Plan will outline the proposed education activities for the upcoming year, and will identify target audiences and anticipated costs of the program. Goldsboro submitted their annual Action Plan to DWQ for approval prior to October 1, 2001 and annually since then. The Action Plan consists of activities listed in Table 5.1. Innovative activities not included in this table may be considered on a case-by-case basis. In addition to the Category 1 and 2 activities (note that planned activities are no longer divided into Category 1 and 2 for the latest SWMP), this Action Plan included two technical workshops in the first year and a toll-free hotline for reporting illegal discharges.

Public Education Action Plan Category 1 and 2 Activities (Table 5.1)

Category 1	Category 2
Demonstration Sites (for SCMs)	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 problems	Speak to civic organizations quarterly
Environmental field day	
Technical Workshop (only applicable after 1st year)	
Environmental Contest	

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 provide various SCMs available for nitrogen reduction as well as information on new SCM techniques or improvements in established SCM techniques.

For the training of City 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 by the General Services Department. It is anticipated that most (if not all) of these materials will 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

The ultimate goal of the Public Education Program utilizes major media advertising (television, radio, and newspaper) to reach a broad audience. Goldsboro uses effective major media advertising through a cooperative effort with the Clean Water Education Partnership (CWEP).

As part of Goldsboro's integrative approach to managing their Stormwater Management Program, two separate advisory committees were formed to aid in the development of the City's Stormwater Plan: The Steering Committee, an internal management group; and a Stakeholder's Committee, a select community group. Both committees were convened on July 12 and August 17, 2000 to provide direct input into this Program development. The Steering Committee was composed of representatives from the City Manager's office, and the General Services, Recreation and Parks, Planning, Engineering, Community Affairs, and Finance Departments. The Charge to the Steering Committee included the need to assign responsibilities for program elements, consider manpower and budgetary needs, obstacles to implementation, and steps that could be taken to remove obstacles and/or provide incentives for program participation. The Steering Committee completed their activities in 2001.

For the Stakeholder's Committee, individuals from the following concerns participated, along with representatives from the City Manager's office: the Chamber of Commerce, Seymour Johnson Air Force Base, Industry, Commercial Development, Wayne Community College, the Economic Development Corp., the Neuse River Foundation, a large and small developer, an engineer, and a concerned property owner (and flood victim). Although compliance with the Neuse River Rule and EPA's Phase II Rule is mandatory, the City wanted to establish a means for active involvement and input by affected citizenry. It was explained to the

Stakeholder's that only by voicing their concerns about program implementation, and by sharing their ideas for public education/participation and specific program incentives, could the program be tailored to best serve the citizens of Goldsboro. This committee concluded their activities in 2001.

A new group called the Ad-hoc Advisory Committee was formed to provide feedback and advice on the SWMP. This group consisted of those developers and engineers attending the annual Technical Workshop put on by the City of Goldsboro. This group was planned to be a starting place for later community involvement in carrying out the program, and can help provide support for enforcement and funding initiatives.

In addition, Goldsboro already has several entities in place which are useful in disseminating information to the public and for garnering their involvement. The City may utilize these groups as avenues for public education and outreach, and public participation/involvement.

- The Commission of Community Affairs was established to "inform the general public of existing local, state and federal policies, regulations and programs and how these particular policies, regulations and programs directly affect the lives of area residents." In addition, their purpose is to create a forum which permits open discussion and invites the free expression of public opinion, as well as to achieve and sustain an effective degree of citizen involvement.
- The Planning Commission was established to serve as an advisory board to make recommendations to the City Council on any matter presented to them by the Director of Planning and Community Development, by any local governing board, or by any Board member.
- The Advisory Committee on Community Development consists of ten citizens and residents of the City, with special efforts made to include a majority of members who are low- and moderate-income persons, members of minority groups, residents of area where significant amounts of activity are proposed or on-going, the elderly, the handicapped, the business community, and civic groups who are concerned about community development. At least two members from each community development area must be included. This committee, or one structured like it, could be used to play an active role in educating the general public on stormwater related issues.
- The Youth Council offers an organization through which the youth of the community may benefit both themselves and their community. Stormwater concerns would be an excellent opportunity to initiate programs and projects that are of benefit to the youth and to the City of Goldsboro.

5.1.2 Technical Workshops

During the first year of program implementation, the Engineering Department took responsibility for conducting two technical workshops. One was designed to educate local government officials and staff, and the other was for the development community (including engineers, developers, architects, contractors, surveyors, planners, and realtors). In subsequent years, workshops have been conducted on an annual basis, and have been included in the annual Education Action Plan.

5.2 Incorporating Existing Resources and Programs

Community teaming is encouraged in the Stormwater Rule, and Goldsboro has made and continues to make an effort to research and incorporate existing resources and stormwater education programs. Although Goldsboro's Action Plan will fulfill all public education requirements from the onset, the City recognized that utilizing existing resources results in a more consistent education effort for communities of all sizes, makes the most efficient use of available resources, and reduces duplication of efforts. Teaming opportunities have been used, particularly in regard to the following Public Education activities:

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

5.3 Pollutants, Sources, Audiences Worksheet

This table can be used to evaluate illicit discharge sources and develop approaches for detection and prevention and as a guide for evaluating priority pollutants, sources, and audiences for both IDDE and Public Education. Public education SCMs will be implemented to address the identified nutrient sources and target audiences but may be modified as experience dictates.

Identified nutrient sources and target audiences listed in Table 11 below will be addressed by the Public Education and Outreach Program.

Pollutants, Sources, Audiences Worksheet (Table 5.2)

Pollutants	Source Types	Landuse Types	Target Audience(s)	Detection Methods	Preventive Practices	Cleanup Methods	Priority / Frequency / Severity
Nitrogen	fertilizer	SFR, office/comm	Homeowners, businesses, City Public Works		Soil tests, fertilizer guidance, alternative planting		
	Sanitary sewer leaks, sanitary cross-connections	All types					
	New Development	Residential, Commercial Properties	Developers, Design Engineers		Education		Priority 1
Petroleum Products		low-density SFR, auto care businesses	General Public, Businesses, Local Government Employees			Absorbent materials, removal and disposal	
Fecal Indicator Bacteria	Sanitary sewer leaks, sanitary cross-connections			Sanitary sewer leaks, sanitary			

				cross-connections			
Chemical	Industrial Discharges	Commercial, Industrial Activities	Activity Owners	Outfall Screening	Education, information about IDDE	Stop, contain, remove, dispose	
Detergents	Sanitary sewer leaks, cross-connections						
	Car washes	SFR, commercial	Homeowners, charity organizations		Direct water to grassy areas, intercept with boom and direct to sanitary sewer		

Table 13 Public Education and Outreach SCMs

MS4 Permit Ref	3.2.2 and 3.2.4: Outreach to Targeted Audiences Measures to identify the specific elements and implementation of a Public Education and Outreach Program to share educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and how the public can reduce pollutants in stormwater runoff. The permittee shall provide educational information to identified target audiences on pollutants/sources identified in table 12 above, and shall document the extent of exposure of each media, event or activity, including those elements implemented locally or through a cooperative agreement.			
Neuse NMS	Public Education and Outreach Planning Measures to develop a Public Education and Outreach Plan, review implementation, and adjust as needed. The Plan will identify the specific elements and implementation of a Public Education Program to share educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and how the public can reduce pollutants in stormwater runoff.			
SCM No.	A	B	C	D
	Description of SCM	Measurable Task(s)	Schedule for Implementation	Annual Reporting Metric
#. 2.1	Review and Update Target Pollutants, Sources, Audiences List			
	Develop a list of target pollutants, sources, and audiences for the Local Program. Review pollutants likely to have significant stormwater impact against past IDDE investigations, Impaired Waters list, and other resources. Update sources and potential audiences based on IDDE investigations and other resources.	1. Create table of target pollutants, sources, and audiences for inclusion in Local Program	1. First year	1. List is in initial Local Program.
		2. Annual review of Impaired Waters and TMDL Map and most recent 303(d) list.	2. Reviewed annually.	2. List new or changed pollutants, likely sources, and possible audiences.
		3. Review tracking of illicit discharge investigations and enforcement and identify emerging target pollutants.	3. Reviewed annually.	3. List new or changed pollutants, likely sources, and possible audiences.
		4. Review public contacts for pollutant, source, or audience changes.	4. Reviewed annually.	4. List new or changed pollutants, likely sources, and possible audiences.
#. 2.2	Develop and Update Public Education Plan			
	Develop a Public Education and Outreach Plan based on the	1. Develop initial Public Education and Outreach Plan	1. First year	1. Share plan with DEQ.

Table 13 Public Education and Outreach SCMs

	pollutants, sources, and audiences identified (SCM #). The plan will describe specific materials and approaches for addressing identified pollutants, sources, and audiences. Effectiveness will be reviewed annually against IDDE investigations, Public Education and Outreach efforts of the past year, and contacts with the public, and lead to Plan revisions.	based on identified pollutants, sources, and audiences. 2. Modify Plan based on review changes in pollutants, sources, audiences list, IDDE investigations, and public contacts. Include a review of past events/outreach, including unplanned ones.	2. Second year and annually thereafter.	2. Share revised plan with DEQ
MS4 Permit Ref	2.1.7, 3.2.3 and 3.6.5(c): Web Site Measures to provide a web site designed to convey the program's message(s) and provide online materials including ordinances, or other regulatory mechanisms, or a list identifying the ordinances or other regulatory mechanisms, providing the legal authority necessary to implement and enforce the requirements of the permit and SWMP. The web page shall also provide developers with all relevant post-construction requirements, design standards, checklists and/or other materials. 3.2.5: Stormwater Hotline Measures for a stormwater hotline/helpline for the purpose of public education and outreach.			
Neuse NMS	Education and Outreach Media Types Measures to collect and/or develop education, outreach, and involvement materials in different media or through different mechanisms. Media are not specific to pollutant types, pollutant sources, or target audiences – they comprise methods of education and outreach.			
SCM No.	A	B	C	D
	Description of SCM	Measurable Task(s)	Schedule for Implementation	Annual Reporting Metric
#. 2.3	Stormwater Page on Local Government Website			
	Set up a web site designed to convey the program's message(s) and provide a place to host online materials including information on the local government's water resources activities, the NMS Local Program, annual reports, educational materials, ordinances, guidelines, events announcements, etc. The web page will also serve to advertise the stormwater hotline	1. Continue the stormwater web page	1. First year	1. completed
		2. Maintain the webpage, update any broken links, upload new educational material, upload Local Program	2. Annually	2. Report the date the web page is reviewed and updated as well as what updates are made, list specific materials posted

Table 13 Public Education and Outreach SCMs

	and opportunities for involvement.	3. Set a hit counter in order to monitor engagement	3. Year 1	3. Report the number of hits
#. 2.4	Stormwater Phone Hotline			
	A phone hotline will be maintained and monitored by assigned staff for citizens to ask stormwater questions and report stormwater issues. Questions or comments from the public and responses from staff will be tracked through to resolution. (This SCM is referenced in Illicit Discharge and Detection Table 4.1)	1. Set up and maintain hotline phone number	1. First year	1. completed
		2. Train responsible parties in general stormwater knowledge, appropriate contacts for stormwater questions, and citizen opportunities within the stormwater program	2. First year, and subsequent years as needed	2. Report the date of training, and the dates any additional staff are trained
		3. Publicize hotline in materials developed for the stormwater program, post on stormwater web page, include in local government's phone tree/contact lookup, include in staff email signatures	3. First year, and subsequent years as needed	3. Completed current
		4. Establish a tracking mechanism to document the number and type of calls received, actions and processes used through to resolution	4. First year, and maintain all subsequent years	4. Report the number and type of calls
#. 2.5	Partnership with CWEP			
	The City of Goldsboro will engage with CWEP to develop Education and Outreach Initiatives that will be administered by CWEP.	1. Arrange partnership with CWEP and establish legal agreement or contract	1. Annually	1. Yes
		2. Submit a partnership plan detailing specific commitments of the CWEP partnership to NC DEQ for approval	2. First Year	2. Yes
		3. Monitor CWEP activities to ensure partnership commitments are met	3. Annually, following establishment of partnership	3. Yes/no/status
Neuse-NSM	Targeted Outreach Audiences and Topics Measures below include specific messages to singular or groups of target audiences, pollutant types, pollutant sources, or management actions.			
SCM No.	A	B	C	D
	Description of SCM	Measurable Task(s)	Schedule for Implementation	Annual Reporting Metric

Table 13 Public Education and Outreach SCMs

#. 2.6	Developer Resources - General			
	Establish a developer stormwater resources section on the website so relevant materials are easily accessible for developers. Include a checklist of submissions materials for development applications. (This SCM is referenced in Post-Construction Site Runoff Control Table 6.1)	1. Upload links to ordinances, post-construction requirements, link to design standards, and other relevant material to website	1. First year	1. completed
		2. Update when changes to resources occur	2. Annually	2. Change made (Yes/No)
#. 2.7	Developer Resources – Nutrient Rules			
	Prepare educational materials for developers specific to the requirements of Nutrient Management Strategy implementation. Include information on nutrient calculation guidance, minimum onsite stormwater requirements, nutrient targets, and nutrient offset procedures. (This SCM is referenced in Post-Construction Site Runoff Control Table 6.1)	1. Upload links to the NMS Rule, local ordinances, nutrient calculation guidance, nutrient targets, onsite stormwater requirements, and nutrient offset procedures	1. First year	1. completed
		2. Update when changes to resources occur	2. Annually	2. Changes made (Yes/No)
#. 2.8	Public Education for BUA Limits and SCM Maintenance			
	Provide education and information resources for Property Owners Associations and the general public regarding BUA limits and the need for adequate SCM maintenance. (This SCM is referenced in Post-Construction Site Runoff Control Table 6.1)	1. Guides and other materials prepared and provided appropriate entities.	1. First year and then annually as needed.	1. Number of guides or other material distributed
#. 2.9	Public/Business Outreach About Illicit Discharges, Dumping, Cross-Connection			
	Design outreach materials for the general public and businesses addressing illicit discharges, dumping, and sewer-cross-connections. Materials describe the problem, how to report it if encountered, sources of assistance, and provide descriptions of desired alternative behavior. Provide Spanish or other language materials and training if investigation determines this is a	1. Materials prepared and sent to appropriate industrial, commercial and retail establishments	1. Annually	1. Yes/No

Table 13 Public Education and Outreach SCMs

	common cause of miscommunication. (This SCM is referenced in Illicit Discharge and Detection Table 4.10)			
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PART 6: PUBLIC INVOLVEMENT AND PARTICIPATION PROGRAM

This SWMP identifies the minimum elements and implementation of a Public Involvement and Participation Program that complies with applicable State, Tribal and local public notice requirements. The City of Goldsboro will manage, implement and report the following public involvement and participation SCMs.

Table 14: Public Involvement and Participation SCMs				
MS4 Permit Ref.	3.3.1: Public Input Mechanisms for public involvement that provide for input on stormwater issues and the stormwater program.			
SCM No.	A	B	C	D
	Description of SCM	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
#. 3.1	SCM Title			
	Administer a Public Involvement Program	1. Develop and implement a Public Involvement and Participation Program.	1. Year 1 and update annually	1. Number of Events with public involvement in development and participation
#. 3.2	SCM Title			
	Allow the public an opportunity to review and comment on the Stormwater Plan	1. Conduct at least one public meeting to allow the public an opportunity to review and comment on the Stormwater Plan.	1. Year 1	1. Yes or No
#. 3.3	SCM Title			
	Establish a Citizens' Group(s)	1. Develop a citizens' group(s) for input on stormwater issues and the stormwater program	1. Year 1 and annually thereafter	1. Number of times Citizen Group met and provided input
Permit Ref.	3.3.2: Volunteer Opportunities Measures to provide volunteer opportunities designed to promote ongoing citizen participation.			
SCM No.	A	B	C	D
	Description of SCM	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
#. 3.4	SCM Title			
	Organize a volunteer community involvement program	1. Organize and implement a volunteer stormwater related program designed to promote ongoing citizen participation.	1. Year 1	1. Yes or No
		2. Implement a volunteer activity promoting citizen participation	2. Year 2 and annually thereafter	2. Number of events each year.

PART 7: ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM

The City of Goldsboro will develop, manage, implement, document, report and enforce an Illicit Discharge Detection and Elimination Program which shall, at a minimum, include the following illicit discharge detection and elimination SCMs.

7.1 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. Under Article V, UDO, the Goldsboro City Council adopted Section 6.6 "Illegal Discharge Control" to establish this authority within the City proper and its ETJ. This ordinance is included as Appendix C of this Stormwater Management Program and shows that Goldsboro 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.

Tables 7.1 and 7.2, respectively, identify some discharges that are and are not allowed to the stormwater collection system.

7.2 Collecting Jurisdiction-Wide Information

The City collects 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.

Types of discharges that May be Allowable to the Stormwater Collection System (Table 7.1)

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

Types of Discharges that are not Allowed to the Stormwater Collection System (Table 7.2)

Dumping of Oil, Anti-freeze, 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		

The purpose of collecting jurisdiction-wide information (which was completed by the second annual report in October 2002) is to assist with identifying potential illegal discharge sources and characterizing illegal discharges after they are discovered. The Engineering Department is responsible for collecting and mapping the jurisdiction-wide information which 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 Maps and the USGS 1:24,000 scale topographic maps.
- Land uses. Categories, at a minimum, 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 for hazardous materials.
- Major stormwater structural controls, to include major stormwater outfalls and identification of their receiving waters (as required by Phase II).
- 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 includes 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 maintenance, and age of structure.
- A summary table of publicly owned open space that identifies size, location, and primary function of each open area.

7.3 Mapping and Field Screening in High Priority Areas

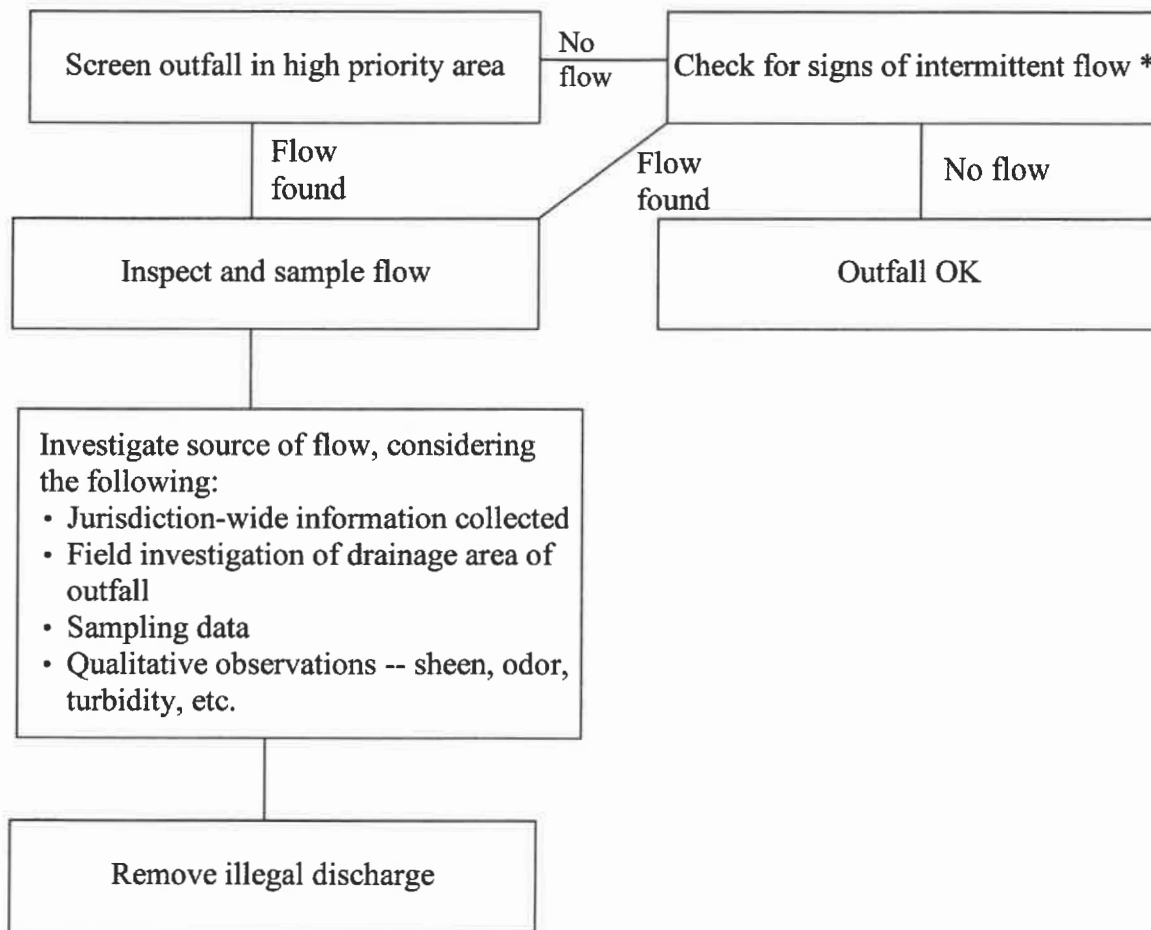
As part of the October 2002 annual report, the Engineering Department identified a high priority area for more detailed mapping and field screening (at least 20 percent of the jurisdiction area). Each subsequent year, another high priority area of at least 20 percent size was chosen. In this way, Goldsboro completed their high priority area mapping by 2007, which met expected EPA Phase II requirements. "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 was explained in the annual report.

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

- Locations of the outfalls of any pipes from non-industrial 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 non-industrial 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 screening process** is conducting a dry weather field screening of all outfalls that meet the criteria to detect illegal discharges. Public Works is responsible for overseeing the dry weather field screening which 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 7.1, will be followed.

Field Screening Process (Figure 7.1)



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

Note: 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.

If field screening shows that an 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 analyses). 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 within 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 10 mg/L.

Field Screening Report Information (Table 7.2)

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.

7.4 Identifying and Removing Illegal Discharges

After the field screening is complete, the Engineering Department will take measures to identify and direct the removal of 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 Engineering Department will be responsible for planning a systematic field investigation to minimize the amount of resources required to identify the source. The Public Works Department will assist in conducting investigations. Several field methods may be used for identifying illegal discharges, 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 C, which contains the adopted ordinance to establish authority to control illegal discharges, also contains 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, the Engineering Department 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.

City personnel are trained in how to conduct a thorough 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 an illegal discharge. The training of City personnel to undertake the

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process of investigating and identifying illegal discharges is multi-phased. Training materials (pamphlets, flyers, and/or booklets) are disseminated to all involved personnel as part of Goldsboro's Public Education Action Plan (Section 5.0). Most (if not all) of these materials are obtained from agencies such as DWQ and the US Environmental Protection Agency (EPA). In addition, the written training materials are accompanied by seminars and hands-on field training. The Engineering Department will be responsible for coordinating personnel training and for scheduling all illegal discharge activities.

7.5 Preventing Discharges and Establishing a Hotline

The Planning and Finance Departments will contact persons who are responsible for establishments that are likely sources of illegal discharges (e.g., auto sales, rental, and repair businesses, lawn care companies, cleaners, and certain types of contractors). A letter (see sample letter in Appendix D) will be mailed to all such businesses that can be identified. The mailing list will be compiled from sources such as the Chamber of Commerce listings, the local Yellow Pages, and business tax rolls, and will be mailed before the first annual report is due in October 2001.

The Engineering Department established an illegal discharge hotline in October 2001 as a cost-effective way to identify illegal discharges. There is a recording advising citizens what to do if they call during non-business hours; or in the case where an illegal discharge is perceived to be an emergency. The Engineering Department investigates all potential illegal discharges identified through the hotline assisted by the Public Works Department. Part of the Public Education Action Plan (discussed in Section 5.0) is to educate citizens about what types of discharges should not go to the stormwater collection system and make them aware of the hotline.

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

Phased Implementation Schedule for Illegal Discharge Activities (Table 7.4)

Year	Implementation Requirements	Annual Report requirements
By March 9, 2001	• Establish legal authority to address illegal discharges.	• Submit report identifying established legal authority to meet requirements.
By October 2002	• Collect jurisdiction-wide information. • Select high priority area for additional screening. • Initiate illegal discharge hotline.	• 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	• 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.	• 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.

Table 15: Illicit Discharge Detection and Elimination SCMs

MS4 Permit Ref	3.4.1: MS4 Map Measures to develop, update and maintain a municipal storm sewer system map including stormwater conveyances, flow direction, major outfalls and waters of the United States receiving stormwater discharges.			
	Neuse NMS Stormwater Drainage Network Map Measures to develop, update and maintain a stormwater drainage network map including stormwater conveyances, flow direction, major outfalls and waters of the United States receiving stormwater discharges.			
SCM No.	A	B	C	D
	Description of SCM	Measurable Task(s)	Schedule for Implementation	Annual Reporting Metric
#. 4.1	Creation and Maintenance of Storm-drain Network Map			
	The storm-drain network map will be created through field mapping and GIS analysis of existing data. Major components include stormwater inlets, conveyances, roadside ditches, and outfalls. Infrastructure type and flow direction will be identified. Data will be continually maintained.	1. Create a GIS data layer containing known major outfalls, stormwater inlets, conveyances, and other infrastructure	1. completed	1. Report percent of system initially mapped
		2. Update GIS data layer with field mapped objects, verify flow directions of all conveyances	2. Second year	2. Report number and type of objects identified
		3. When new public stormwater infrastructure is identified or constructed add objects to the map with flow direction	3. Annually	3. Report types and number of new public infrastructure added to the map during the reporting period
#. 4.2	Waters of the State GIS Data Layer			
	A GIS data layer of waters of the state will be created or acquired, with regular updates sought.	1. Acquire a GIS data layer of the waters of the state from the USGS or other source	1. completed	1. Report when data layer is acquired and source of data, note publication date
		2. Check for regular updates from data source, or add field-identified objects to self-sourced dataset	2. Annually	2. Report whether data were updated (if self-sourced), or whether a new dataset was issued with publication date

#. 4.3	Land Use GIS Data Layer			
	The Local Program will maintain a GIS data layer of current land use types in the jurisdictional area.	1. Create land-use data layer starting from zoning maps or current land-use data layer.	1. First year	1. Report when data are acquired or updated.
#. 4.4	Location of Sanitary Sewers and Other Human Waste Sources			
	The Local Program will create or acquire a copy of the sanitary sewer network GIS data layer and other septic infrastructure in GIS format that covers the jurisdictional area for identification of potential nutrient contributions to the storm drain network or Waters of the State.	1. Obtain regular updates of a sanitary sewer GIS layer from providers overlapping the area of its jurisdiction	1. Annually	1. Report whether updates were received. Note publication date or date of last update.
		2. Obtain regular updates of a septic system GIS layer showing systems in its jurisdiction.	2. Annually	2. Report whether updates were received. Note publication date or date of last update.
#. 4.5	Preparation of Source Tracking Maps for Field Staff			
	The Local Program will prepare paper or electronic maps for use by field staff conducting dry weather inspections, discharge identification and tracing, and identification of sanitary cross-connections.	1. Create initial maps containing storm drain infrastructure, waters of the state, sanitary and septic locations, and land use.	1. Report date completed	1. Completed
		2. Update maps with revised data layers, and additional data sources if available. Distribute to field staff.	2. Annually	2. Completed y/n?
MS4 Permit Ref	3.4.2: Regulatory Mechanism Measures to provide an IDDE ordinance or other regulatory mechanism that provides legal authority to prohibit, detect, and eliminate illicit connections and discharges, illegal dumping and spills into the MS4, including enforcement procedures and actions.			
Neuse NSM	Regulatory Mechanism Measures to provide an IDDE ordinance or other regulatory mechanism that provides legal authority to prohibit, detect, investigate, and eliminate illicit connections and discharges, illegal dumping and spills into the storm-drain network, including enforcement procedures and actions.			
SCM No.	A	B	C	D
	Description of SCM	Measurable Task(s)	Schedule for Implementation	Annual Reporting Metric
#. 4.6	Maintain Legal Authority			

	Maintain the legal authority to prohibit, detect, investigate, and eliminate illicit connections and discharges, illegal dumping and spills into the storm-drain network and waters of the state, including adequate support for enforcement procedures and actions.	1. Review ordinance against EPA model ordinance and update if revision is required to maintain adequate legal authority	1. Report date completed	1. Report if a revision is required and if a revision is made.
#. 4.7	Enforcement and Resolution Standard Operating Procedures			
	Develop and maintain a set of procedures and data collection for notifying property owners of discharge and violation, advising on and verifying correction of discharge, and the process for escalation of enforcement.	1. Develop enforcement and resolution protocol	1. Report date completed	1. Completed y/n?
		2. Train staff in protocol	2. As needed	2. training dates
		3. Update based on annual IDDE review	3. second year and annually thereafter	3. Date of review
MS4 Permit Ref	3.4.3: IDDE Plan Measures to maintain and implement a written IDDE Plan to detect and address illicit discharges, illegal dumping and any non-stormwater discharges identified as significant contributors of pollutants to the MS4. The plan shall provide standard procedures and documentation to: a) Locate priority areas likely to have illicit discharges, b) Conduct routine dry weather outfall inspections, c) Identify illicit discharges and trace sources, d) Eliminate the source(s) of an illicit discharge, and e) Evaluate and assess the IDDE Program.			
Neuse NMS	IDDE Plan and Implementation Measures to maintain and implement a written IDDE Plan to detect and address illicit discharges, illegal dumping and any non-stormwater discharges identified as significant contributors of pollutants to the storm-drain network.			
SCM No.	A	B	C	D
	Description of SCM	Measurable Task(s)	Schedule for Implementation	Annual Reporting Metric
#. 4.8	Proactive Program: Outfall Inspections			
	Perform regular dry weather (no rain in previous 72 hours) outfall	1. Train inspections staff to perform dry weather outfall inspections and illicit discharge investigations	1. Annually as needed	1. Completed y/n?

	inspections to proactively identify illicit discharges and illicit connections.	2. Split major outfalls into five equal groups (20% of total) for inspection; so that with one group inspected per year, all major outfalls will be inspected over a five-year period, update as needed	2. Rotate to next group of 20% every year, update as needed	2.Total number of outfalls
		3. Inspect one group of outfalls (set listed above) annually in dry weather conditions and document any potential violations using forms and procedures.	3. Inspect set in one year	3. Outfalls inspected that year
#. 4.9	Discharge/Dumping and Source Type Scoping			
	A set of common or expected illicit discharge and dumping types for the community and likely source types will be identified and revised based on IDDE investigations.	1. Use discharge/pollutant worksheet included in this document or similar approach	1. First year	1. Completed y/n?
		2. Revise worksheet based on past year's IDDE incidents	2. Second year and annually thereafter.	2. Date of review
#. 4.10	Detection, Tracing, and Investigation Standard Operating Procedures			
	A set of detection methods, source tracing methods, and investigation methods will be identified based on the discharges and source types identified in SCM#4.9. This includes indicators (like test strips discharge appearance), tracing methods (like dye tests), and screening locations (like outfalls). Standard Operating Procedures for IDDE investigation will be developed from that, incorporating use of Tracking Maps and updated based on IDDE investigations. Forms for collecting data in in response to discharge reports will be developed. This program will be regularly updated based prior IDDE investigations.	1. Using discharge and source type scoping, consult with other jurisdictions and DWR for methods for detecting discharge types, and identifying unknown discharges	1. First year	1. Completed y/n?
		2. Develop standard operating procedures and data collection forms for field investigations	2. First year	2. Completed y/n?
		3. Update based on annual IDDE review	3. Second year and annually thereafter.	3. Date of review
#. 4.11	Elimination Protocols and Agreements			
	A set of discharge and dumping elimination and cleanup protocols will be developed based on the	1. Determine appropriate elimination / treatment protocols for each type of source/discharge	1. First year.	1. Completed y/n?

	discharges and source types identified in SCM# 4.10. Instruction materials will be developed where appropriate. Agreements with other entities (such as WWTP operators) will be set up. This will be updated based on prior IDDE cleanup efforts.	2. Arrange agreements with cooperating entities as needed 3. Update based on annual IDDE review	2. First year 3. Second year and annually thereafter	2. Completed y/n? 3. Date of review
#. 4.12	Proactive Program: IDDE Priority/Hot Spot Screening Program			
	A proactive discharge and dumping regular screening and detection program will be developed based on detection methods and promising screening locations. This program will prioritize screening areas based on likely / expected hot-spots determined from the Landuse and Human Waste GIS data and other sources. Forms for collecting program data will be developed. This program will be regularly updated based prior IDDE investigations.	1. Determine high priority areas for proactive screening	1. First year	1. Completed y/n?
		2. Develop schedule, procedures, locations	2. First year	2. Completed y/n?
		3. Collect data according to procedures	3. Annually	3. number of site visits that year, number of discharges found
		4. Update based on annual IDDE review	4. Second year and annually thereafter.	4. Date of review
#. 4.13	IDDE Program Evaluation			
	Yearly evaluation of IDDE program to promote continuance of effective components and improvement in areas that are lacking.	1. Evaluation meeting with IDDE program stakeholders; to include at least Stormwater Administrator and Utilities Director	1. Year 2 and annually thereafter.	1. Date of review
		2. Review of IDDE reports and identification of chronic violators, issues, and/or "hot-spot" areas	2. Year 2 and annually thereafter.	2. Chronic violators and/or hot-spots found? y/n
		3. Review against other SCMs for needed SWMP updates	3. Year 2 and annually thereafter.	3. date of review
#. 4.14	Public/Business Outreach About Illicit Discharges, Dumping, Cross-Connection			
	(See full SCM description in Public Education and Outreach Table 2.1)	1.	1.	1.

MS4 Permit Ref	3.4.4: IDDE Tracking Measures for tracking and documenting the date(s) an illicit discharge, illicit connection or illegal dumping was observed, the results of the investigation, any follow-up of the investigation, the date the investigation was closed, the issuance of enforcement actions, and the ability to identify chronic violators.			
Neuse NMS	IDDE Tracking Measures for tracking and documenting the date(s) an illicit discharge, illicit connection or illegal dumping was observed, the results of the investigation, any follow-up of the investigation, the date the investigation was closed, the issuance of enforcement actions, and the ability to identify chronic violators.			
SCM No.	A	B	C	D
	Description of SCM	Measurable Task(s)	Schedule for Implementation	Annual Reporting Metric
#. 4.15	IDDE Tracking System			
	Develop a tracking system for observed IDDE incidents and results of investigation, cleanup or elimination actions, follow-up actions, enforcement actions, and when the investigation was close. Tracking system will be able to identify chronic violators. Ensure data collected through proactive screening, reports collected from staff, and via the Stormwater Hotline are integrated into this system.	1. Develop a tracking spreadsheet or database to collect data from IDDE investigations and follow-up actions including enforcement, through to closure.	1. First year.	1. Date completed.
		2. Develop an "Illicit Discharge/Dumping Investigation" form to include observed illicit discharge indicators, date, location, and contacts made	2. First year.	2. Date completed.
		3. Ensure IDDE incidents and follow-up are properly tracked.	3. First year and subsequent years.	3. Number of incidents reported each year.
		4. Update based on annual IDDE review	4. Second year and annually thereafter.	4. date of review
MS4 Permit Ref	3.4.5: Staff IDDE Training Measures to provide training for municipal staff and contractors who, as part of their normal job responsibilities, may observe an illicit discharge, illicit connection, illegal dumping or spills. Training shall include how to identify and report illicit discharges, illicit connections, illegal dumping and spills. Each staff training event shall be documented, including the agenda/materials, date, and number of staff participating.			
Neuse NMS	IDDE Training and Reporting Measures to provide training for municipal staff and contractors who, as part of their normal job responsibilities, may observe an illicit discharge, illicit connection, illegal dumping or spills. Training shall include how to identify and report illicit discharges, illicit connections, illegal dumping and spills. Each staff training event shall be documented, including the agenda/materials, date, and number of staff participating.			

SCM No.	A	B	C	D
	Description of SCM	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
#. 4.16	Staff Training and Reporting			
	Develop a program to educate local government staff of indicators of potential illicit discharges, cross-connections, and illegal dumping and the appropriate avenues through which to report suspected illicit discharge.	1. Develop staff training program for employees	1. Report date completed	1.
		2. Train staff with Illicit Discharge & Detection responsibilities or the potential to discover an illicit discharge during routine work activities	2. Year 2	2. Report topics/agenda, training date, and number of attendees
		3. Train new staff that will be part of the IDDE program	3. As needed.	3. Report topics/agenda, training date, and number of attendees
		4. Update based on annual IDDE review	4. Second year and annually thereafter	4. date of review
MS4 Permit Ref	3.4.6: IDDE Reporting Measures for the public and staff to report illicit discharges, illegal dumping and spills. The mechanism shall be publicized to facilitate reporting and shall be managed to provide rapid response by appropriately trained personnel.			
Neuse NMS	IDDE Reporting Measures for the public and staff to report illicit discharges, illegal dumping and spills. The mechanism shall be publicized to facilitate reporting and shall be managed to provide rapid response by appropriately trained personnel.			
SCM No.	A	B	C	D
	Description of SCM	Measurable Task(s)	Schedule for Implementation	Annual Reporting Metric
#. 4.17	Stormwater Hotline			
	(See full SCM description in Public Education and Outreach Table 2.1) Encourage the reporting of strange smells, colored water, foam, and oil.	1.	1.	1.

PART 8: CONSTRUCTION SITE RUNOFF CONTROL PROGRAM

In accordance with 15A NCAC 02H .0153, the City of Goldsboro relies upon the North Carolina Sedimentation Pollution Control Act (SPCA) of 1973 as a qualifying alternative program to meet a portion of the NPDES MS4 Permit requirements for construction site runoff control measures. The SPCA requirements include reducing pollutants in stormwater runoff from construction activities that result in land disturbance of greater than or equal to one acre, and includes any construction activity that is part of a larger common plan of development that would disturb one acre or more. The state SPCA Program is either delegated to a city/town, delegated to a county, or implemented by NCDEQ in non-delegated areas.

Table 16: Qualifying Alternative Program Components for Construction Site Runoff Control Program

Permit Reference	State or Local Program Name	Legal Authority	Implementing Entity
3.5.1 - 3.5.4	State Implemented SPCA Program	15A NCAC Chapter 04	NCDEQ

The City of Goldsboro also implements the following SCMs to meet NPDES MS4 Permit requirements.

Table 17: Construction Site Runoff Control SCMs

Permit Ref.	3.5.6: Public Input Measures to provide and promote a means for the public to notify the appropriate authorities of observed erosion and sedimentation problems.			
SCM No.	A	B	C	D
	Description of SCM	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
#. 5.1	Municipal Staff Training			
	Train municipal staff who receive calls from the public on the protocols for referral and tracking of construction site runoff control complaints.	1. Train municipal staff on proper handling of construction site runoff control complaints.	1. Annually Permit Years 1-5	1. Number of staff trained
Permit Ref.	3.5.5: Waste Management Measures to require construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impact to water quality.			
SCM No.	A	B	C	D
	Description of SCM	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
#. 5.2	Construction Site Operator Education			
	Provide flyers to Construction Site Operators on impacts of construction on water quality. Require that Site Operators brief personnel working on site.	1. Prepare flyer(s) for dissemination	1. Year 1	1. Flyers ready for dissemination.
		2. Disseminate flyers to Construction Site Operators.	2. Years 2-5	2. Number of flyers handed out to Construction Site Operators
		3. Check construction sites for compliance	3. Years 2-5	3. Number of sites checked against number of construction sites.

PART 9: POST-CONSTRUCTION SITE RUNOFF CONTROL PROGRAM

In accordance with 15A NCAC 02H .0153 and .1017, the City of Goldsboro implements the following State post-construction program requirements, which satisfy the NPDES Phase II MS4 post-construction site runoff control requirements as Qualifying Alternative Programs (QAPs) in the MS4 area(s) where they are implemented.

This part identifies the elements being used to develop, implement, and enforce a program to reduce nutrients in stormwater runoff from new development projects and development expansions. These elements meet the requirements set forth in the Neuse Stormwater Rule (15A NCAC 02B .0711). These elements are designed to minimize water quality impacts through a combination of structural Stormwater Control Measures (SCMs) and nutrient offset buy-downs, and to ensure adequate long-term operation and maintenance of SCMs.

Table 18: Qualifying Alternative Program(s) for Post-Construction Site Runoff Control Program

State Stormwater Program Name	State Requirements	Local Ordinance / Regulatory Mechanism Reference
Water Supply Watershed (WS-IV)	15A NCAC 02B .0620 - .0624	Uniform Development Ordinance Section 5.8
Neuse River Basin Nutrient Management in Stormwater Strategy	15A NCAC 02B .0711	Uniform Development Ordinance Section 6.5

Existing Post-Construction Ordinances, Procedures, and Guides

The City of Goldsboro has existing ordinances, guidance manuals, standard operating procedures, and reference material that cover part or all of the implementation of the nutrient stormwater rule’s post-construction requirements. These ordinances and references are summarized in the Table below.

Table 19 List of Ordinances and References

Plan Review and Approval	Municipal Ordinance/Code Reference(s) and/or Document Title(s)	Date Adopted
Authority	Uniform Development Ordinance (UDO) Section 6.5	7/23/2007
Federal, State & Local Projects	UDO Section 6.5	7/23/2007
Plan Review	UDO Section 6.5	7/23/2007
O&M Agreement	UDO Section 6.5	7/23/2007
O&M Plan	UDO Section 6.5	7/23/2007
Deed Restrictions/Covenants	UDO Section 6.5	7/23/2007
Access Easements	UDO Section 6.5	7/23/2007
Nutrient Calculation	UDO Section 6.5	7/23/2007
Nutrient Offset	UDO Section 6.5	7/23/2007
Inspections and Enforcement	Municipal Ordinance/Code Reference(s) and/or Document Title(s)	Date Adopted
Documentation	UDO Section 6.5	7/23/2007
Right of Entry	Goldsboro Code of Ordinances § 54.03	
Pre-CO Inspections	Goldsboro Code of Ordinances § 54.03	
Compliance with Plans	UDO Section 6.5	7/23/2007
Annual SCM Inspections	UDO Section 6.5	7/23/2007
Qualified Professional	UDO Section 6.5	7/23/2007

9.1 Neuse Nutrient Management Strategy

The goal of the Neuse Nutrient Management Strategy (NMS) (initial 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 NMS also includes a rule to protect riparian buffers (the Riparian Buffer Rule, 15A NCAC 02B .0714) to maintain their existing nitrogen removal capabilities.

The Neuse Stormwater Rule (15A NCAC 02B .0711) applies to the largest and fastest-growing local governments in the Neuse River Basin; Goldsboro 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 Resources (DWR) to work with the affected local governments to implement a model stormwater program for meeting the objectives. The timeframe for implementation of the rule is as follows:

1. **March 2021 through September 2021** - Current local governments develop draft local programs with DWR assistance

2. **September 2021** – current local governments submit revised Local Programs, including draft ordinances, to DWR for review

3. **March 2023** – DWR brings recommendations on draft Local Programs to the Environmental Management Commission (EMC)

4. **September 2023 (or 6 mo. after EMC approval)** – current local governments have adopted their approved Local Programs and ordinances and have started implementation of the Stormwater Rule

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

This document details the City of Goldsboro's Stormwater Management Program for Nitrogen Control in the Neuse River Basin. It follows the guidance provided in the Neuse and Tar -Pamlico Local Program Development Guide dated February 15, 2021.

9.2 Goldsboro's Stormwater Management Plan

9.2.1 Plan Goals

The City of Goldsboro takes a proactive approach to the management and control of stormwater in both the

city proper and in its Extraterritorial Jurisdictions (ETJs). Rather than simply meet the requirements for nitrogen control as dictated by the Neuse NMS, Goldsboro has structured their Stormwater Management Program to address the requirements of EPA's Phase II Stormwater Rule.

The purpose of the Stormwater Management Plan (SWMP) is to establish and define the means by which the City of Goldsboro will comply with its National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit and the applicable provisions of the Clean Water Act to meet the federal standard of reducing pollutants in stormwater runoff to the maximum extent practicable.

This SWMP identifies the specific elements and minimum measures that the City will develop, implement, enforce, evaluate and report to the North Carolina Department of Environmental Quality (NCDEQ) Division of Energy, Minerals and Land Resources (DEMLR) in order to comply with the MS4 Permit number NCS000396, as issued by NCDEQ. This permit covers activities associated with the discharge of stormwater from the MS4 as owned and operated by the City of Goldsboro and located within its corporate limits.

In preparing this SWMP, the City of Goldsboro has evaluated its MS4 and the permit requirements to develop a comprehensive 5-year SWMP that will meet the community's needs, address local water quality issues and provide the minimum measures necessary to comply with the permit. The SWMP will be evaluated and updated annually to ensure that the elements and minimum measures it contains continue to adequately provide for permit compliance and the community's needs.

Once the SWMP is approved by NCDEQ, all provisions contained and referenced in this SWMP, along with any approved modifications of the SWMP, are incorporated by reference into the permit and become enforceable parts of the permit. Any major changes to the approved SWMP will require resubmittal, review and approval by NCDEQ, and may require a new public comment period depending on the nature of the changes.

9.2.2 Organization of this Stormwater Management Plan

This document reflects the basic organization of the MS4 stormwater template; these sections are written to also meet the requirements of the Draft Stormwater Management Plan template dated March 9, 2021, as well as the Neuse and Tar-Pamlico Model Stormwater Ordinance for New Development.

9.2.3 Responsibilities

The implementation of this Stormwater Management Plan NPDES and for Neuse NMS is the responsibility of the City Manager. Day to day operational control is provided by the Director of Engineering under the supervision of the City Manager. Representatives from the Public Works, Planning, and Public Utilities Departments may be called upon as necessary by the Engineering Department for advice and assistance. The Stormwater Management Plan involves other City Departments as well, such as the Fire and Police Departments and the Parks and Recreation Department. If necessary, a Steering Committee consisting of various departments, in conjunction with the City Manager, can be called upon to review the implementation of the program and to address any new issues which may arise.

9.3 Applicability and Jurisdiction

The Unified Development Ordinance (UDO – Incorporated by Reference) of Goldsboro's Code of Ordinances states that no new or redevelopment project may proceed before all permits are secured, which requires that the site plan be submitted to and approved by the Planning and Engineering Departments of the city. It will be during this established development review process that the City will review the Neuse Stormwater Rule components of any project falling under the "New Development" definition. Appendix A contains a copy of Article V. Section 6.5 Stormwater Management for New Development of the UDO, to establish the authority to require compliance with the Program Plan for New Development within the City proper and its ETJ, as detailed in this section.

Development and Redevelopment are defined as follows:

(1) Development. - Any land-disturbing activity that increases the amount of built-upon area or that otherwise decreases the infiltration of precipitation into the subsoil. When additional development occurs at a site that has existing development, the built-upon area of the existing development shall not be included in the density calculations for additional stormwater control requirements, and stormwater control requirements cannot be applied retroactively to existing development, unless otherwise required by federal law.

(2) Redevelopment. - Any land-disturbing activity that does not result in a net increase in built-upon area and that provides greater or equal stormwater control to that of the previous development.

Project Density Requirements:

A project shall be considered a low density project if it meets the low density criteria set forth in 15A NCAC 02H .1017 and contains no more than 24 percent built-upon area or no more than two dwelling units per acre; otherwise, a project shall be considered high density. Low density and High Density projects shall comply with the requirements set forth in Rule 15A NCAC 02H .1003.

Developers or builders will be required to comply with these provisions for any new development which falls under the following definitions:

(1) Single family and duplex residential and related recreational development and expansion of development that disturbs less than one acre is exempt from the provisions of this ordinance.

(2) Commercial, industrial, institutional, multifamily residential or local government development that disturbs less than one half acre and does not expand existing structures on a parcel is exempt from the provisions of this ordinance.

(3) Commercial, industrial, institutional, multifamily residential or local government development that disturbs less than one half acre and expands existing structures on a parcel, but does not result in a cumulative built-upon area for the parcel exceeding twenty-four (24) percent is exempt from the provisions of this ordinance.

(4) Development that disturbs less than the above thresholds are not exempt if such activities are part of a larger common plan of development or sale and the larger common plan exceeds the relevant threshold, even though multiple, separate or distinct activities take place at different times on different schedules.

(5) Development of an individual single-family or duplex residential lot that is not part of a larger common plan of development or sale and does not result in greater than five (5) percent built-upon area on the lot is exempt from the provisions of this ordinance.

[(6) A project subject to the requirements of the Falls Nutrient Strategy New Development Stormwater Rule, 15A NCAC 02B .0277 is exempt from the provisions of this ordinance.]

(7) Existing development or redevelopment is exempt from the provisions of this ordinance.

(8) Activities subject to requirements of the Neuse Watershed Agriculture Rule, 15A NCAC 02B .0712 is exempt from the provisions of this ordinance.

(9) Development or expansion of development with a vested right per the standards of N.C.G.S. 160D-108 is exempt from the provisions of this ordinance.

(10) Development or expansion of development for which the permit application was submitted prior to adoption of this ordinance is optionally exempt from the provisions of this ordinance per the requirements of N.C.G.S. 143-755.

The Stormwater Administrator shall use the policy, criteria, and information, including technical specifications and standards, in the design manual as the basis for decisions about stormwater permits and about the design, implementation and performance of engineered stormwater controls and other practices for compliance with this ordinance.

The Design Manual includes a list of acceptable stormwater treatment practices, including specific design criteria for each stormwater practice. Stormwater treatment practices that are designed, constructed, and maintained in accordance with these design and sizing criteria will be presumed to meet the minimum water quality performance standards of the Neuse Watershed Rules.

If the specifications or guidelines of the Design Manual are more restrictive or apply a higher standard than other laws or regulations, that fact shall not prevent application of the specifications or guidelines in the Design Manual.

If the standards, specifications, guidelines, policies, criteria, or other information in the Design Manual are amended subsequent to the submittal of an application for approval pursuant to this ordinance but prior to approval, the applicant shall have the choice of using the new Design Manual in reviewing the application and in implementing this ordinance with regard to the application or using the old Design Manual.

The Design Manual may be updated and expanded from time to time, based on advancements in technology and engineering, changes to State Minimum Design Criteria, improved knowledge of local conditions, or local monitoring or maintenance experience.

9.3.1 Nitrous Loading Rate Targets

The project shall meet either a nitrogen stormwater loading rate target of 3.6 pounds per acre per year (lb/ac/yr), as defined in 15A NCAC 02H .1002.

The project area used for nutrient calculation and stormwater requirements includes the site area less any existing built-upon area. The project density used for determining stormwater requirements is the amount of built-upon area subject to this ordinance at project completion divided by the project area.

The developer shall determine the nitrogen loading rate generated from the project area without engineered stormwater controls and determine the needed nitrogen load reduction to meet nutrient targets by using the approved accounting tool as developed and approved by NCDWQ.

The nitrogen loading standards in this ordinance are supplemental to, not replacements for, stormwater standards otherwise required by federal, state or local law, including without limitation any riparian buffer requirements applicable to the location of the development. This includes, without limitation, the riparian buffer protection requirements of 15A NCAC 02B .0714.

9.3.2 Control and Treatment of Runoff Volume

All projects shall meet the stormwater system design requirements set forth in 15A NCAC 02H .1003. Projects shall use a project density threshold of greater than twenty-four (>24%) percent built-upon area, whereupon high-density stormwater design is required. All engineered stormwater controls will meet the standards set in the Design Manual and the State's Minimum Design Criteria, 15A NCAC 02H .1050 through .1062.

Where high-density stormwater design is required, stormwater systems shall meet the standards set forth in 15A NCAC 02H .1003(3) and be designed to control and treat the volume of runoff generated from all built-upon area by one inch of rainfall in one or more Primary SCMs. These projects may utilize offsite Primary SCMs dedicated to treating an area encompassing the project. Where high-density stormwater design is not required, stormwater systems shall meet the low-density stormwater design standards set forth in 15A NCAC 02H .1003(2).

In addition to the control measures outlined in 15A NCAC 02H .1008, stormwater management systems consisting of other control options or series of control options may be approved by the Engineering Director on a case-by-case basis. This approval shall only be given in cases where the applicant can demonstrate that the Alternative Design Criteria shall provide equal or better stormwater control, equal or better protection of waters of the state, and result in no increased potential for nuisance conditions. The criteria for approval shall be that the stormwater management system shall provide for 85 percent average annual removal of Total Suspended Solids and that the discharge rate from the system meets one of the following:

- (1) the discharge rate following the one-inch design storm shall be such that the runoff volume draws down to the pre-storm design stage within five days, but not less than two days; or
- (2) the post development discharge rate shall be no larger than predevelopment discharge rate for the one year 24 hour storm.

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. Chapter 151 of the City Code of Ordinances details Flood Damage Prevention and addresses this problem, and is included in Appendix B. Section 151.03 (E) states that this ordinance is

designed to “Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands.”

9.3.3 Methods to meet Nutrient Control Requirements

Projects subject to this ordinance shall meet nitrogen loading targets through a combination of the following methods:

Projects may reduce export of nitrogen through any combination of engineered stormwater controls treating runoff on the site, in an approved offsite regional engineered stormwater control, or through the acquisition of permanent nutrient offset credits. The developer shall calculate the nitrogen reduction provided by these controls using the approved state accounting tool or other method approved by the state.

Proposed development undertaken by a local government solely as a public road expansion or public sidewalk project, or proposed development subject to the jurisdiction of the Surface Transportation Board, may meet nitrogen reduction needs for the project entirely through the use of permanent nutrient offset credits pursuant to the Nutrient Offset Credit Trading Rule, 15A NCAC 02B .0703.

Sufficient permanent nutrient offset credits to meet project nutrient reduction needs not provided by engineered stormwater controls serving the project shall be acquired prior to approval of the development plan. The Stormwater Administrator shall issue an approval letter for the development that documents the needed nitrogen credits and where the development is located relative to the Neuse Watershed Rules’ geographic requirements. All permanent nutrient offset credits permitted by this ordinance shall meet the requirements of 15A NCAC 02B .0703.

Permanent nutrient offset credits shall be acquired pursuant to N.C.G.S. 143-214.26 and 15A NCAC 02B .0703 prior to the start of construction of the project.

A developer subject to this ordinance may acquire permanent nutrient offset credits through one of the following methods:

- (1) Through a private nutrient bank;
- (2) Through offsite offset provided by the developer and approved by name of local government;
- (3) Through payment into the Riparian Buffer Restoration Fund established in N.C.G.S. 143-214.21.

Note: Excess permanent nutrient offset credits acquired beyond what is required for the development may not be applied to any other development.

9.3.4 Goldsboro’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 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).

The City of Goldsboro 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 of 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 and approval on a mitigation plan for a use designated as Allowable with Mitigation, or
- a variance.

As part of this Stormwater Management Program, Goldsboro will require riparian areas to be protected on all new or modified plats.

9.4 Stormwater Control Measures (SCMs)

9.4.1 Choosing SCMs

Site planning practices that reduce nitrogen loadings from new development (including reducing impervious surfaces and protecting open spaces) will be encouraged; however, SCMs may still be required. Property owners will be instructed to consider the ability of the SCM(s) to reduce their nitrogen loading within acceptable limits, as well as the issues of aesthetics, long-term maintenance, safety, and reliability of the SCM design. All SCMs must meet the minimum design criteria (MDC) as codified in the Stormwater rules and detailed in the State Stormwater Design Manual. The City of Goldsboro has designated this Stormwater Design Manual as the city's Stormwater Design Manual for submission of plans and drawings under this SWMP.

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 SCMs are still required, information sources may be provided on the various SCMs 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 SCM 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 SCM techniques or improvements in established SCM techniques may also be disseminated as part of the Public Education Action Plan.

The SCMs which may currently be utilized for reducing nitrogen and their treatment rates can be found in the NC DEQ stormwater design manual found at: <https://deq.nc.gov/about/divisions/energy-mineral-and-land-resources/stormwater/stormwater-program/stormwater-design>

All engineered stormwater controls and stormwater systems required under this ordinance shall be evaluated by the Stormwater Administrator according to the policies, criteria, and information, including technical specifications and standards and the specific design criteria for each stormwater practice in the Design Manual. The Stormwater Administrator shall determine whether proposed engineered stormwater controls will be adequate to meet the requirements of this ordinance.

Engineered stormwater controls that are designed, constructed, and maintained in accordance with the criteria and specifications in the Design Manual will be presumed to meet the minimum water quality and quantity performance standards of this ordinance. Whenever an applicant proposes to utilize a practice or practices not designed and constructed in accordance with the criteria and specifications in the Design Manual, the applicant shall have the burden of demonstrating that the practice(s) will satisfy the minimum water quality and quantity performance standards of this ordinance. The Stormwater Administrator may require the applicant to provide the documentation, calculations, and examples necessary for the Stormwater Administrator to determine whether such an affirmative showing is made.

If a builder or developer includes one or more SCMs as part of the site design, they will be required to provide an engineering certification of the design at the time they submit their Building Permit application. The NC DEQ Stormwater Design Manual is incorporated by reference for use within the City's jurisdictional area. Upon completion of the development project, and prior to approval of a Certificate of Occupancy, the engineering department will ensure compliance with the regulations detailed above via an engineer's certification. Article V, Section 2.11.2 of the UDO establishes the administrative procedure for ensuring this step by stating, "No Certificate of Occupancy shall be issued by the Building Inspector until the Planning Department and the Engineering Department of the city have certified that site improvements have been completed in accordance with the plan previously submitted and approved."

9.4.2 Long-Term Maintenance Plan for SCMs

The owners or person(s) responsible for maintenance of any engineered stormwater control installed pursuant to this ordinance shall submit to the Stormwater Administrator an inspection report from a qualified

professional certified by the North Carolina Cooperative Extension Service for stormwater treatment practice inspection and maintenance; alternatively, the city will provide inspections at a fee to the owner, this annual inspection fee is charged to fund this additional inspection program (as adopted by the City Council); note that underground detention facilities or any similar confined space will

The inspection report shall contain all of the following:

- (1) The name and address of the landowner;
- (2) The recorded book and page number of the lot of each engineered stormwater control;
- (3) A statement that an inspection was made of all engineered stormwater controls;
- (4) The date the inspection was made;
- (5) A statement that all inspected engineered stormwater controls are performing properly and are in compliance with the terms and conditions of the approved maintenance agreement required by this ordinance; and
- (6) The original signature and seal of the engineer, surveyor, or landscape architect.

All inspection reports shall be on forms supplied by the Stormwater Administrator. An original inspection report shall be provided to the Stormwater Administrator beginning one year from the date of as-built certification and each year thereafter on or before the date of the as-built certification. A current list of all SCMs, their location, and status is maintained by the Engineering Department to assist in the inspection process. SCMs are 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 SCM has been approved by the City's Planning and Engineering Departments.

Inspections and inspection programs by The City of Goldsboro may be conducted or established on any reasonable basis, including but not limited to routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; and joint inspections with other agencies inspecting under environmental or safety laws. Inspections may include, but are not limited to, reviewing maintenance and repair records; sampling discharges, surface water, groundwater, and material or water in the engineered stormwater controls; and evaluating the condition of engineered stormwater controls. If the owner or occupant of any property refuses to permit such inspection, the Stormwater Administrator shall proceed to obtain an administrative search warrant pursuant to N.C.G.S. 15-27.2 or its successor. No person shall obstruct, hamper or interfere with the Stormwater Administrator while carrying out his or her official duties.

9.4.3 Operation and Maintenance of SCMs

There shall be an Operation and Maintenance Plan (O&M Plan) for every engineered stormwater control. The O&M Plan shall specify all operation and maintenance work necessary for the function of all engineered stormwater control components, including the stormwater conveyance system, perimeter of the device, inlet(s), pretreatment measures, main treatment area, outlet, vegetation, and discharge point.

The O&M Plan shall require the owner to maintain, repair and, if necessary, reconstruct the engineered stormwater controls, and shall state the terms, conditions, and schedule of maintenance for the engineered stormwater controls. The O&M Plan shall specify methods to be used to maintain or restore the engineered stormwater controls to design specifications in the event of failure.

The O&M Plan shall be signed by the owner and notarized. The owner shall keep maintenance records and these shall be available upon request by the Stormwater Administrator.

Prior to the conveyance or transfer of any lot or building site to be served by engineered stormwater controls pursuant to this ordinance, and prior to issuance of any permit for development requiring engineered stormwater controls pursuant to this ordinance, the applicant or owner of the site must enter into an Operation and Maintenance Agreement (O&M Agreement) with the Stormwater Administrator. The O&M Agreement shall require the applicant or owner to maintain, repair, or reconstruct the engineered stormwater controls in accordance with the approved design plans and the Operation and Maintenance Plan. The O&M Agreement shall be binding on all subsequent owners of the site, portions of the site, and lots, or parcels served by the engineered stormwater control. Until the transference of all property, sites, or lots served by the engineered stormwater control, the original owner or applicant shall have primary responsibility for carrying out the provisions of the O&M Agreement.

The O&M Agreement shall grant to The City of Goldsboro a right of entry in the event that the Stormwater Administrator has reason to believe it has become necessary to inspect, monitor, maintain, repair, or reconstruct the engineered stormwater control; however, in no case shall the right of entry, of itself, confer an obligation on The City of Goldsboro to assume responsibility for the engineered stormwater controls. The O&M Agreement must be approved by the Stormwater Administrator prior to development plan approval, and it shall be referenced on the final plat and shall be recorded with the county Register of Deeds upon final plat approval. A copy of the recorded O&M Agreement shall be given to the Stormwater Administrator within fourteen (14) days following its recordation.

For all engineered stormwater controls required pursuant to this ordinance and that are to be or are owned and maintained by a homeowners' association, property owners' association, or similar entity, the required O&M Agreement shall include all of the following provisions:

- (1) Acknowledgment that the association shall continuously operate and maintain the engineered stormwater controls according to the specifications laid out in the Operation and Maintenance Plan.
- (2) Establishment of an escrow account, which can be spent solely for sediment removal, structural, biological or vegetative replacement, major repair, or reconstruction of the engineered stormwater controls. If engineered stormwater controls are not performing adequately or as intended or are not properly maintained, the City of Goldsboro, in its sole discretion, may remedy the situation, and in such instances the City of Goldsboro shall be fully reimbursed from the escrow account. Escrowed funds may be spent by the association for sediment removal, structural, biological or vegetative replacement, major repair, and reconstruction of the engineered stormwater controls, provided that the City of Goldsboro shall first consent to the expenditure.
- (3) Both developer contribution and annual sinking funds shall fund the escrow account. Prior to plat recordation or issuance of construction permits, whichever shall first occur, the developer shall pay into the escrow account an amount equal to fifteen (15) per cent of the initial construction cost of the engineered stormwater controls. Two-thirds (2/3) of the total amount of sinking fund budget shall be deposited into the escrow account within the first five (5) years and the full amount shall be deposited within ten (10) years following initial construction of the engineered stormwater controls. Funds shall be deposited each year into the escrow account. A portion of the annual assessments of the association shall include an allocation into the escrow account. Any funds drawn down from the escrow account shall be replaced in accordance with the schedule of anticipated work used to create the sinking fund budget.
- (4) The percent of developer contribution and lengths of time to fund the escrow account may be varied by the City of Goldsboro depending on the design and materials of the engineered stormwater controls.
- (5) Granting to the City of Goldsboro a right of entry to inspect, monitor, maintain, repair, and reconstruct engineered stormwater controls.
- (6) Allowing the City of Goldsboro to recover from the association and its members any and all costs the City of Goldsboro expends to maintain or repair the engineered stormwater controls or to correct any operational deficiencies. Failure to pay the City of Goldsboro all of its expended costs, after forty-five days written notice, shall constitute a breach of the agreement. In case of a deficiency, the City of Goldsboro shall thereafter be entitled to bring an action against the association and its members to pay, or foreclose upon the lien hereby authorized by the agreement against the property, or both. Interest, collection costs, and attorney fees shall be added to the recovery.
- (7) A statement that this agreement shall not obligate the City of Goldsboro to maintain or repair any engineered stormwater controls, and the City of Goldsboro shall not be liable to any person for the condition or operation of engineered stormwater controls.
- (8) A statement that this agreement shall not in any way diminish, limit, or restrict the right of the City of Goldsboro to enforce any of its ordinances as authorized by law.
- (9) A provision indemnifying and holding harmless the City of Goldsboro for any costs and injuries arising from or related to the engineered stormwater controls, unless the City of Goldsboro has agreed in writing to assume the maintenance responsibility for the engineered stormwater controls and has accepted dedication of any and all rights necessary to carry out that maintenance.

The applicable Operations and Maintenance Agreement, [conservation easement, or dedication and acceptance into public maintenance (whichever is applicable)] pertaining to every engineered stormwater control shall be referenced on the final plat and shall be recorded with the county Register of Deeds upon final plat approval. If no subdivision plat is recorded for the site, then the Operations and Maintenance

Agreement, (conservation easement, or dedication and acceptance into public maintenance, whichever is applicable) shall be recorded with the county Register of Deeds so as to appear in the chain of title of all subsequent purchasers under generally accepted searching principles.

Every engineered stormwater control and its associated maintenance accesses on privately owned land, except for those located on single family residential lots, installed pursuant to this ordinance shall be made accessible for adequate maintenance and repair by a permanent maintenance easement. The easement shall be recorded and its terms shall specify who may make use of the easement and for what purposes. The engineered stormwater control will be shown and labeled within the easement. The easement shall be granted in favor of the Stormwater Administrator.

9.5 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 SCMs 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 has been conducted by the Planning and Engineering Departments. Goldsboro has inserted verbiage into the City Ordinances as well as in the Technical Design and Details Manual which encourages, and allows for, variances in the items listed above. Variations in planning and design techniques can be considered on a case-by-case basis provided that the measures would decrease impervious surface area, while still fulfilling the basic needs of the Planning and Engineering Departments.

9.6 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 SCMs where necessary – the majority of the Phase II requirements for development controls are addressed through this Program Plan. However, modifications have been incorporated into this SWMP to comply with the Phase II program.

9.6.1 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) and the State's NPDES general stormwater permit for construction activities substantially address all of these issues.

9.6.2 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 SCMs; an ordinance or other regulatory mechanism requiring the implementation of post-construction runoff controls; and a method to ensure adequate long-term operation and maintenance controls. These provisions are included in this Stormwater Management Program.

9.7 Stormwater Permit

As detailed in Appendix A (UDO Article V, Section 6.5), each new development or redevelopment that meets the criteria contained within this section will submit an application for a stormwater permit to the Engineering Department in accordance with Article V, Section 6.5.7 Permit Required. The stormwater permit requirements are detailed in Section 6.5.7 Application Requirements.

9.8 Construction Site Runoff Control Program

In accordance with 15A NCAC 02H .0153, the City of Goldsboro relies upon the North Carolina Sedimentation Pollution Control Act (SPCA) of 1973 as a qualifying alternative program to meet a portion of the NPDES MS4 Permit requirements for construction site runoff control measures. The SPCA requirements include reducing pollutants in stormwater runoff from construction activities that result in land disturbance of greater than or equal to one acre and includes any construction activity that is part of a larger common plan of development that would disturb one acre or more. The state SPCA Program is either delegated to a city/town, delegated to a county, or implemented by NCDEQ in non-delegated areas.

The annual reporting metrics for the post construction program are provided in Table 20: Post Construction Site Runoff Control SCMs below.

Table 20: Post Construction Site Runoff Control SCMs				
Permit Ref.	3.6.5(a), 3.6.5(b), and 4.1.3: Minimum Post-Construction Reporting Requirements Measures to document activities over the course of the fiscal year (July 1 – June 30) including appropriate information to accurately describe progress, status, and results.			
SCM No.	A	B	C	D
	Description of SCM	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
#. 6.1	Standard Reporting			
	Implement standardized tracking, documentation, inspections and reporting mechanisms to compile appropriate data for the annual self-assessment process. Data shall be provided for each Post-Construction/ Qualifying Alternative Program being implemented.	1. Track number of low density and high density plan reviews performed.	1. Continuously Permit Years 1-5	1. Number of plan reviews performed for low density and high density.
		2. Track number of low density and high density plans approved.	2. Continuously Permit Years 1-5	2. Number of plan approvals issued for low density and high density.
		3. Maintain a current inventory of low density projects and constructed SCMs including SCM type or low density acreage, location and last inspection date.	3. Continuously Permit Years 1-5	3. Summary of number and type of SCMs added to the inventory; and number and acreage of low density projects constructed.
		4. Track number of SCM inspections performed.	4. Continuously Permit Years 1-5	4. Number of SCM inspections.
		5. Track number of low density inspections performed.	5. Continuously Permit Years 1-5	5. Number of low density projects inspected.
		6. Track number and type of enforcement actions taken.	6. Continuously Permit Years 1-5	6. Number of enforcement actions issued.

Table 20: Post Construction Site Runoff Control SCMs				
	Minimum Post-Construction Reporting Requirements Measures to document activities over the course of the fiscal year (July 1 – June 30) including appropriate information to accurately describe progress, status, and results.			
SCM No.	A	B	C	D
	Description of SCM	Measurable Task(s)	Schedule for Implementation	Annual Reporting Metric

Table 20: Post Construction Site Runoff Control SCMs

#. 6.2	Standard Nutrient Management Strategy Reporting			
	Implement standardized tracking, documentation, inspections and reporting mechanisms to compile appropriate data for the annual self-assessment process.	1. Track number of NMS-subject plans approved in past year.	1. Continuously	1. Number of plan approvals issued for NMS-subject developments in the past year.
		2. Maintain a current inventory of developments and lots with BUA limits and constructed SCMs including SCM type or location, and last inspection date.	2. Continuously	2. Summary of number and type of SCMs added to the inventory in the past year; and number of developments with BUA limits added to inventory in the past year.
		3. Track number of post-construction SCM inspections performed by staff in the past year.	3. Continuously	3. Number of post-construction SCM inspections in the past year.
		4. Track number and type of construction-phase stormwater inspections performed.	4. Continuously	4. Number and type of construction-phase stormwater inspections.
#. 6.3	Data Used in Nutrient Calculations			

Table 20: Post Construction Site Runoff Control SCMs

	Input data used for the calculation of nutrient export and reduction by SCMs for all development sites subject to .0711 will be collected for the year and submitted as an appendix for the Local Program's Annual Report.	1. Export SNAP input data from each development upon approval.	1. Continuously	1. Nutrient calculation input data for all developments and expansions subject to the Neuse Stormwater Rule submitted to NCDEQ by October 30 of each year.
		2. Provide adjusted SNAP input data from each development where completed landcovers are different from what was permitted.	2. Annually	2. Nutrient calculation data for these developments and a notice for which previously-submitted data are to be replaced.
	Legal Authority Measures to maintain adequate legal authorities through ordinance or other regulatory mechanism to: (a) review designs and proposals for new development and expansion of development to determine whether adequate stormwater control measures will be installed, implemented, and maintained, (b) implement requirements of the Neuse Nutrient Management Strategy Stormwater Rule, including nutrient targets, Rule applicability, stormwater treatment requirements, nutrient calculation methods, and nutrient offset. (c) request information such as stormwater plans, inspection reports, monitoring results, and other information deemed necessary to evaluate compliance with the Post-Construction Stormwater Management Program, and (d) enter private property for the purpose of inspecting at reasonable times any facilities, equipment, practices, or operations related to stormwater discharges to determine whether there is compliance with the Post-Construction Stormwater Management Program.			
SCM No.	A	B	C	D
	Description of SCM	Measurable Task(s)	Schedule for Implementation	Annual Reporting Metric
#. 6.4	Nutrient Management Strategy Requirements Specified in Ordinance			

Table 20: Post Construction Site Runoff Control SCMs

	Neuse Nutrient Management Strategy requirements shall be included in the jurisdiction's development ordinance. Ordinance needs to be at least as stringent as the NMS Rule requirements for Rule applicability, nutrient targets, stormwater requirements, specify the calculation method, and procedures for nutrient offset.	1. Establish nutrient targets through code revision	1. Report date completed	1.
#. 6.5	Authority to Review Federal, State, and Local Government Plans			
	Ensure local ordinance specifically requires compliance with Nutrient Management Strategy by Federal, State, and Local government projects.	1. Revise code to require Federal, State, and local government projects to comply with post construction requirements unless subject to its own NPDES MS4 permit or qualifying alternative program	1. First year	1. Completed - Yes
#. 6.6	Legal Authorities for Development Plans and Plan Review			
	Provide adequate legal authorities designed to meet the objectives of the Post-Construction Site Runoff Controls Stormwater Management program, including the ability to request stormwater plans, conduct development design reviews and approvals, review and approve O&M Plans and Agreements for all SCMs, requiring deed restrictions and protective covenants for SCMs, and requiring recordation of BUA limits for projects and individual lots within.	1. Establish legal authority through code revision	1. Report date completed	1.
#. 6.7	Authority to Require Submission of Annual SCM Inspection Reports			
	Provide legal authority to require owners and operators of post-construction SCMs to perform and submit inspections performed by a qualified professional on an annual basis.	1. Establish legal authority through code revision	1. Report date completed	1.
#. 6.8	Legal Authorities for Inspections and Enforcement			

Table 20: Post Construction Site Runoff Control SCMs

	Provide legal authorities needed for inspections and enforcement including right-of-entry, ability to issue Notices of Violation and Stop Work Orders, ability to review as-builts for compliance with approved plans, and other enforcement mechanisms.	1. Establish legal authority through code revision	1. Report date completed	1.
#. 6.9	SCM Minimum Design Criteria Specified			
	Ensure the local ordinance or local SCM design manual specifically refers to the State's Minimum Design Criteria.	1. Revise code to specify State Minimum Design Criteria for SCM design	1. First year	1. Completed y/n?
	Plan Review and Approval Measures to maintain plan review and approval authority, standards, and procedures to: (a) (MS4 jurisdictions only) Require Federal, State, and local government projects to comply with Post-Construction Program requirements throughout the entire jurisdiction, unless the entity is subject to its own NPDES MS4 permit or a qualifying alternative program, or set up Memoranda of Agreement with Federal, State, and Local government property owners noting the appropriate reviewing authority for potential development plans on those properties, (b) Conduct site plan reviews of all new development and redeveloped sites that disturb greater than or equal to one acre, and sites that disturb less than one acre that are part of a larger common plan of development or sale for compliance with 15A NCAC 02H .1017 and the qualifying alternative programs that apply within your jurisdiction (MS4 only), (c) Conduct site plan reviews of all new development and development expansions for compliance with the stormwater treatment and nutrient reduction requirements in 15A NCAC 02B .0711, including reviews of nutrient calculations using a DWR-approved calculation tool, (d) Ensure that each project has an Operation and Maintenance Agreement that complies with 15A NCAC 02H .1050(12), (e) Ensure that each project has an Operation and Maintenance Plan that complies with 15A NCAC 02H .1050(13), (f) Ensure that each project has recorded deed restrictions and protective covenants, that require the project to be maintained consistent with approved plans, and (g) Ensure that each SCM and associated maintenance accesses be protected in a permanent recorded easement per 15A NCAC 02H 1050 (9) and (10).			
SCM No.	A	B	C	D
	Description of SCM	Measurable Task(s)	Schedule for Implementation	Annual Reporting Metric
#. 6.10	MOAs for Plan Review – Federal, State, Local Government			

Table 20: Post Construction Site Runoff Control SCMs

	Local Program will have an MOA with each Federal, State, and Local Government entity within its jurisdiction, stating whether the entity has chosen to have the Local Program review any future development plans for compliance with NMS Rule, or whether plans will be submitted to DEMLR for review.	1. Set up Memoranda of Agreement with a responsible party of each Federal, State, and Local Government entity with property within the jurisdiction of the Local Program.	1. First year	1. List of entities, responsible parties and contact information, and whether plan review will be local or state.
#. 6.11	Review Plans for Compliance with Nutrient Management Strategy			
	Conduct site plan reviews of all new development and development expansions for compliance with the stormwater treatment and nutrient reduction requirements in 15A NCAC 02B .0711, including reviews of nutrient calculations using a DWR-approved calculation tool.	1. Establish application intake and review procedures	1. Report date completed	1.
		2. Conduct site plan reviews	2. Continuously	2. Number of plans approved that year
#. 6.12	SCM Operations and Maintenance Agreements and Plans			
	Ensure each stormwater control measure has an Operation and Maintenance Plan that complies with 15A NCAC 02H .1050(13) and an Operation and Maintenance Agreement that complies with 15A NCAC 02H .1050(12)	1. Establish legal authority through code revision	1. Report date completed	1.
		2. Enforcement of new code by requiring approval of O&M Plan and Agreement by Stormwater Administrator prior to plan approval	2. Continuously	2. Number of O&M Plans and Agreements approved that year
#. 6.13	Deed Restrictions and Protective Covenants			
	Provide mechanisms such as recorded deed restrictions and protective covenants that ensure development activities will maintain the project consistent with approved plans. (Don't close project until deed restrictions are recorded.)	1. Establish legal authority through code revision	1. Report date completed	1.
#. 6.14	Protective Easements for SCMs			

Table 20: Post Construction Site Runoff Control SCMs

	Require that each SCM and associated maintenance accesses be protected in a permanent recorded easement per 15A NCAC 02H 1050 (9) and (10).	1. Establish legal authority through code revision	1. Report date completed	1.
#. 6.15	Require Recordation of BUA Limits on Deeds or Plats			
	Ensure that for lots in developments with a Common Plan of Development that a BUA limit, based on the approved stormwater plan, is recorded with either the deed or plat	1. Establish legal authority through code revision	1. First year	1. Establish legal authority through code revision
#. 6.16	Plan Review Staff Training on Nutrient Calculator Tool			
	Ensure all plan review staff have gone through DWR-provided plan reviewer training for the approved nutrient calculator.	1. All current plan review staff participate in live online training for calculator tool.	1. First year	1. Number of review staff that attended live online training
		2. Plan review staff who were unable to attend live online workshop view recording of training.	2. As needed	2. Number of review staff that viewed recording of training that year
#. 6.17	SCM Transfer Process			
	Prepare a "handoff" educational process for when developers transfer ownership of SCMs to HOAs/POAs. Educational materials should include estimates of annual costs for O&M and inspection, LG general expectations, possible/likely modes of failure, HOA/POA general obligations, other guidance and resources. Integrate this process with the as-built inspection of SCMs.	1. Develop instructions and materials for outreach to HOAs	1. First year	1. Completed y/n?
		2. Set up annual reminders (postcards/email) to HOAs for SCM O&M and inspection	2. Second year and annually thereafter	2. Completed y/n?

Table 20: Post Construction Site Runoff Control SCMs

	Inspections and Enforcement Measures to maintain inspection and enforcement authority, standards and procedures to: (a) Conduct post-construction inspections prior to issuing a Certificate of Occupancy or a Temporary Certificate of Occupancy. Alternatively, the project owner may provide a surety bond to guarantee compliance with the approved plan(s), (b) Ensure that the project has been constructed in accordance with the approved plan(s), (c) Ensure annual inspection of each permitted SCM to ensure compliance with the approved Operation and Maintenance Agreement, (d) Ensure inspection of low-density projects at least once every five years (MS4s only), and (e) Require that inspections be conducted by a qualified professional.			
SCM No.	A	B	C	D
	Description of SCM	Measurable Task(s)	Schedule for Implementation	Annual Reporting Metric
#. 6.18	Inspection of Post-Construction SCMs			
	Conduct staff inspection of all post-construction SCMs annually.	1. Conduct inspection of 100% of SCMs each year	1. Annually	1. Number of SCMs inspected
#. 6.19	Provide a Qualified Individual to conduct Staff Inspections			
	Have individual selected to Staff Inspections attend an approved class on how to conduct SCM inspections	1. At least one Staff Individual has attended training on Conducting SCM Inspections	1. First year and then as required.	1. Number of Trained Personnel
#. 6.20	Inspection of Projects for Compliance With an Approved Plan			
	Ensure inspection of all development projects for compliance with approved stormwater plans, forest protection, and BUA limits, including projects with a lack of an approved plan. Use enforcement measures such as NOVs and stop work orders.	1. Inspect on-going projects for compliance with an approved plan.	1. Annually	1. Number of on-going projects inspected and number of violations.
#. 6.21	End-of-construction SCM Inspections			

Table 20: Post Construction Site Runoff Control SCMs

	1. Conduct post-construction SCM inspections prior to issuing a Certificate of Occupancy or a Temporary Certificate of Occupancy. Or 2. the project owner may provide a surety bond to guarantee compliance with the approved plan(s), and ensure that the project has been constructed in accordance with the approved plan(s), or 3. The Engineer of Record submits a certification that all SCMs on the project have been completed in accordance with an approved plan and are working as designed.	1. COs are only issued when the Engineering Department has determined that the SCMs are in compliance and working as designed.	1. Annually	1. Number of COs issued.
	Documentation Measures to maintain adequate documentation and standardized inspection and tracking mechanisms to: (a) Maintain an inventory of post-construction SCMs and their responsible parties, (b) Maintain an inventory of low-density projects (MS4s only), (c) Maintain an inventory of developments and parcels with BUA limits, (d) Document, track and maintain records of inspections and enforcement actions through the end of construction for compliance with development plans. Tracking shall include the ability to identify chronic violators, (e) Provide education resources for developers to meet stormwater and nutrient management Rules, (f) Provide education resources for the public regarding BUA limits in developments and management of SCMs.			
SCM No.	A	B	C	D
	Description of SCM	Measurable Task(s)	Schedule for Implementation	Annual Reporting Metric
#. 6.22	Inventory of Post-Construction SCMs			
	Develop and maintain a comprehensive inventory of post-construction SCMs to be utilized for inspections and tracking. Inventory shall include information on responsible parties and contact information.	1. Establish list of existing post-construction SCMs and responsible parties	1. First year	1. number of SCMs
		2. Add SCMs to inventory list when project as-builts are approved	2. Annually	2. total number of SCMs
		3. Update responsible party information from submitted annual inspection reports	3. Annually	3. Completed y/n?
#. 6.23	Inventory of Developments and Lots with BUA Limits			

Table 20: Post Construction Site Runoff Control SCMs

	Develop and maintain a comprehensive inventory of projects that have BUA limits tied to their stormwater management or nutrient loading requirements to be used when reviewing new development plans. Develop and maintain a database BUA limits on developments and individual lots within, with BUA limits based on their approved stormwater plans. Actual BUA amounts are updated as new development is approved for and occurs on individual lots.	1. Establish a list of developments with BUA limits	1. First year	1. number of developments
		2. Establish a list of parcels or lots with BUA limits	2. First year	2. number of parcels
		3. Add developments and lots within to the list when project as-builts are approved	3. Continuously	3. total numbers of developments and lots
#. 6.24	Inspections & Enforcement Tracking – Construction-Stage Compliance			
	Develop and maintain a tracking mechanism for inspections, enforcement, and follow-up actions through the end of construction for compliance with development plans, including SCM installations, BUA limits, and protection of forested areas. Provide the ability to identify chronic violators.	1. Develop inspection tracking mechanism to meet all requirements	1. First year	1. Completed - Yes
		2. Enforcement actions are followed for sites with frequent deficiencies	2. Continuously	2. Number of SCMs with deficiencies that year, number of SCMs with unresolved deficiencies
#. 6.25	Inspections & Enforcement Tracking – Post-Construction SCM Compliance			
	Develop and maintain a tracking mechanism for inspections, enforcement, and follow-up actions of post-construction SCM inspections, including annual inspection by Engineering Staff. Provide the ability to identify chronic violators.	1. A list of SCMs and responsible parties is developed and kept updated	1. First year	1. Cumulative number of SCMs identified
		2. Enforcement actions are followed for sites with frequent deficiencies	4. Continuously	4. Number of SCMs with deficiencies that year, number of SCMs with unresolved deficiencies
#. 6.26	Developer Resources - General			
	(See full SCM description in Public Education and Outreach Table 2.1)	1.	1.	1.
#. 6.27	Developer Resources – Nutrient Rules			

Table 20: Post Construction Site Runoff Control SCMs				
	(See full SCM description in Public Education and Outreach Table 2.1)	1.	1.	1.
#. 6.28	Public Education for BUA Limits and SCM Maintenance			
	(See full SCM description in Public Education and Outreach Table 2.1)	1.	1.	1.

PART 10: POLLUTION PREVENTION AND GOOD HOUSEKEEPING PROGRAMS

This SWMP provides a comprehensive pollution prevention and good housekeeping strategy for the City of Goldsboro municipal facilities and operations. Pollution prevention and good housekeeping is accomplished through the implementation of seven required programs, which collectively address the ultimate goal of preventing or reducing pollutant runoff from municipal operations such as parks and open space maintenance, fleet and building maintenance, new construction and land disturbances, and municipal storm sewer system maintenance.

Pollution prevention and good housekeeping for municipal operations includes the following programs:

1. Municipal Facilities Operation and Maintenance Program
2. Spill Response Program
3. MS4 Operation and Maintenance Program
4. Municipal SCM Operation and Maintenance Program
5. Pesticide, Herbicide and Fertilizer Management Program
6. Vehicle and Equipment Maintenance Program
7. Pavement Management Program

The City of Goldsboro will manage, implement and report the pollution prevention and good housekeeping SCMs as specified in Table 21 below for each required program.

Table 21: Pollution Prevention and Good Housekeeping SCMs

MS4 Permit Ref.	3.7.1: Municipal Facilities Operation and Maintenance Program Measures to manage facilities that are owned and operated by the permittee and have the potential for generating polluted stormwater runoff. The permittee shall maintain a current inventory of municipal facilities; perform facility inspections and routine maintenance; establish specific frequencies, schedules, and standard documentation; provide staff training on general stormwater awareness and implementing pollution prevention and good housekeeping practices. <i>[Please note that at a minimum, NCDEQ will require that all inventoried municipal facilities be inspected once per permit term to determine pollution potential, and facilities with potential be inspected at least annually]</i>			
SCM No.	A Description of SCM	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
#. 7.1	Operations and Maintenance Planning			
	Document and inventory city-owned facilities, perform annual inspections of facilities with the potential for generating polluted stormwater runoff, and provide routine maintenance.	1. Inventory all city-owned facilities.	1. Report date completed; update annually	1. Completed YorN
		2. Inspect facilities with greatest pollution potential	2. Annually	2. Number of facilities inspected
		3. Inspect all facilities for pollution potential	3. Every 5 years	3. Number of facilities with pollution potential
		4. Ensure any deficiencies are documented and corrected	4. Annually as found	4. Number of deficiencies, number corrected, timeline for actions
#. 7.2	Staff Training			

Table 21: Pollution Prevention and Good Housekeeping SCMs

	Provide Staff Training on Pollution Prevention and Good Housekeeping	1. Present classes on general stormwater awareness and potential for stormwater runoff pollution	1. Report date completed (and annually thereafter)	1. Number of personnel attending the class by city department
MS4 Permit Ref.	3.7.2: Spill Response Program Measures for facilities and operations that store and/or use materials that have the potential to contaminate stormwater runoff if spilled. The permittee shall maintain written spill response procedures and train staff on spill response procedures.			
SCM No.	A	B	C	D
	Description of SCM	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
#. 7.3	Spill Response Planning			
	Prepare spill response plans for facilities with the potential for spillage which will contaminate stormwater runoff.	1. All permitted city-owned facilities have a spill response plan in place, either through an SWPPP or an SPCC	1. Report date completed	1.
		2. Identify any city-owned facility that does not have a spill response plan in place and has potential to contaminate runoff	2. First year	2. Number of facilities identified
		3. Ensure that facilities identified in SCM above prepare a spill response plan	3. First year	3. Number of spill response plans prepared
#. 7.4	Spill Response Training			
	Provide training to key personnel on spill response	1. Identify by position personnel needing training	1. First year (and annually thereafter)	1. Number of personnel needing training
		2. Either train in-house or provide training for all spill response team members	2. First year (and annually thereafter)	2. Number of personnel trained

Table 21: Pollution Prevention and Good Housekeeping SCMs

MS4 Permit Ref.	3.7.3: MS4 Operation and Maintenance Program Measures to minimize pollutants in the stormwater collection system. The permittee shall provide operation and maintenance staff training on stormwater awareness and pollution prevention, perform MS4 inspections, maintain the collection system including catch basins and conveyances; and establish specific frequencies, schedules, and standard documentation.			
SCM No.	A Description of SCM	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
#. 7.5	MS4 Operations and Maintenance Plan			
	Prepare an MS4 Operations and Maintenance Plan	1. Prepare MS4 O&M plan	1. First year	1. Completed YorN
#. 7.6	Staff Training			
	Provide or schedule for training for MS4 staff	1. Establish training needs for staff	1. First Year	1. Completed YorN
		2. Train locally or arrange for off-site training	2. Annually as needed	2. Number of staff receiving training
#. 7.7	MS4 Inspections and Maintenance			
	Establish an MS4 Inspection Schedule	1. Establish specific frequencies, schedules, and standard documentation	1. First year	1. Completed YorN
		2. Inspect collection system including catch basins and conveyances	2. Annual in accordance with established schedule	2. Number of inspections completed annually
		3. Maintain the MS4 system	3. Annually	3. Number and type of maintenance calls performed; status of overall MS4 system
MS4 Permit Ref.	3.7.4: Municipal SCM Operation and Maintenance Program Measures to manage municipally-owned, operated, and/or maintained structural stormwater control measures (SCMs) that are installed for compliance with the permittee's post-construction program. The permittee shall maintain a current inventory of SCMs, perform SCM inspections and maintenance, and shall establish specific frequencies, schedules, and documentation.			
SCM No.	A Description of SCM	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
#. 7.8	SCM Inspections and Maintenance			
	Inspect and perform maintenance of municipal SCMs	1. Create inventory of municipal SCMS	1. First year and update as necessary	1. Number of municipal SCMs
		2. Inspect municipal SCMS	2. Annually	2. Number of inspections of SCMs
		3. Perform maintenance as necessary	3. Annually	3. Number and type of maintenance activities

Table 21: Pollution Prevention and Good Housekeeping SCMs

#. 7.9	SCM Documentation			
	Provide operations and maintenance plans for each municipal SCM.	1. Prepare O&M plan for each SCM	1. Prior to CO being issued for SCM	1. Number of O&M Plans prepared
		2. Specify inspection schedules and frequency of inspection	2. Inspection schedule prepared prior to CO issued	2. Completed YorN
		3. Document inspections and follow-up actions	3. Annually	3. Number of complete documents filed
MS4 Permit Ref.	3.7.5: Pesticide, Herbicide and Fertilizer Management Program Measures to minimize water quality impacts from the use of landscape chemicals. The permittee shall provide routine pollution prevention and chemical use, storage and handling training, and shall ensure compliance with permits and applicator certifications.			
SCM No.	A	B	C	D
	Description of SCM	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
#. 7.10	Training			
	Provide training on chemical use, storage, and handling of Pesticides, Herbicides, and Fertilizers	1. Train individuals on Application Use and Safety	1. Report date completed (Annually thereafter)	1. Number of new individuals trained
#. 7.11	Certifications and Permits			
	Obtain all necessary certifications and permits	1. Obtain applicator certifications	1. Report date completed (Annually thereafter)	1. Number of new applicator certifications
		2. Obtain permits	2. Report date completed (Annually thereafter)	2. Number of new permits obtained
MS4 Permit Ref.	3.7.6: Vehicle and Equipment Maintenance Program Measures to prevent and minimize contamination of stormwater runoff from areas used for municipal vehicle and equipment maintenance and/or cleaning. The permittee shall ensure that municipal industrial facilities subject to NPDES industrial permitting comply with those permit requirements, provide routine pollution prevention training to staff, perform routine inspections, and establish specific frequencies, schedules, and documentation.			
SCM No.	A	B	C	D
	Description of SCM	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
#. 7.12	Training			
	Provide routine pollution prevention training to staff	1. Give classes to staff	1. Report date completed (and annually thereafter)	1. Number of personnel by City Department to attend class
#. 7.13	Maintenance			
	Staff performs inspections and maintains equipment IAW facilities' permits and/or operating programs	1. Annual inspections and maintenance are performed as required	1. Report date completed (Annually thereafter)	1. Number of facilities in compliance with operations plans

Table 21: Pollution Prevention and Good Housekeeping SCMs

MS4 Permit Ref.	3.7.7: Pavement Management Program Measures to reduce pollutants in stormwater runoff from municipally-owned streets, roads, and parking lots within the permittee's corporate limits. The permittee shall implement measures to control litter, leaves, debris, particulate and fluid pollutants associated with vehicles, and establish specific frequencies, schedules, and documentation.			
SCM No.	A	B	C	D
	Description of SCM	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
#. 7.14	Street Sweeping Program			
	The City of Goldsboro uses street sweepers on the city roads and parking lots.	1. Have operational street sweepers available to clean streets and parking lots	1. Report date completed	1. Number of municipal owned street sweepers
		2. Schedule street sweeping to cover city streets and parking lots	2. Report date completed	2. Number of tons of debris and trash removed from streets and parking lots.

APPENDIX A
Stormwater Management for New Development

6.5 STORMWATER MANAGEMENT FOR NEW DEVELOPMENT

6.5.1 STATUTORY AUTHORIZATION

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, designated specific local governments for the development of new stormwater management requirements as part of the Neuse River Nutrient Sensitive Waters stormwater management strategy. The requirements of this Chapter shall apply to property located within the Neuse River Basin.

The Engineering Director or their designed shall be responsible for interpretation and implementation of the stormwater management and design criteria for the City of Goldsboro as is laid out in this UDO, the City of Goldsboro Stormwater Management Plan document, as well as the City of Goldsboro Engineering Department Standard Specifications and Details Manual. Approval from other applicable agencies may be required.

6.5.2 STORMWATER MANAGEMENT REQUIREMENTS

All development and redevelopment projects within the City of Goldsboro and its ETJ shall meet the stormwater system design requirements set forth in 15A NCAC 02H .1003, including onsite stormwater, threshold for high density, and offset options for public road/sidewalk.

Development and Redevelopment are defined as follows:

- (1) Development. - Any land-disturbing activity that increases the amount of built-upon area or that otherwise decreases the infiltration of precipitation into the subsoil. When additional development occurs at a site that has existing development, the built-upon area of the existing development shall not be included in the density calculations for additional stormwater control requirements, and stormwater control requirements cannot be applied retroactively to existing development, unless otherwise required by federal law.
- (2) Redevelopment. - Any land-disturbing activity that does not result in a net increase in built-upon area and that provides greater or equal stormwater control to that of the previous development.

Project Density Requirements:

A project shall be considered a low density project if it meets the low density criteria set forth in 15A NCAC 02H .1017 and contains no more than 24 percent built-upon area or no more than two

dwelling units per acre; otherwise, a project shall be considered high density. Low density and High Density projects shall comply with the requirements set forth in Rule 15A NCAC 02H .1003.

Developers or builders will be required to comply with these provisions for any new development which falls under either of the following definitions:

(1) Single family and duplex residential and related recreational development and expansion of development that disturbs less than one acre is exempt from the provisions of this ordinance.

(2) Commercial, industrial, institutional, multifamily residential or local government development that disturbs less than one half acre and does not expand existing structures on a parcel is exempt from the provisions of this ordinance.

(3) Commercial, industrial, institutional, multifamily residential or local government development that disturbs less than one half acre and expands existing structures on a parcel but does not result in a cumulative built-upon area for the parcel exceeding twenty-four (24) percent is exempt from the provisions of this ordinance.

(4) Development that disturbs less than the above thresholds are not exempt if such activities are part of a larger common plan of development or sale and the larger common plan exceeds the relevant threshold, even though multiple, separate or distinct activities take place at different times on different schedules.

(5) Development of an individual single-family or duplex residential lot that is not part of a larger common plan of development or sale and does not result in greater than five (5) percent built-upon area on the lot is exempt from the provisions of this ordinance.

[(6) A project subject to the requirements of the Falls Nutrient Strategy New Development Stormwater Rule, 15A NCAC 02B .0277 is exempt from the provisions of this ordinance.]

(7) Existing development or redevelopment is exempt from the provisions of this ordinance.

(8) Activities subject to requirements of the Neuse Watershed Agriculture Rule, 15A NCAC 02B .0712 is exempt from the provisions of this ordinance.

(9) Development or expansion of development with a vested right per the standards of N.C.G.S. 160D-108 is exempt from the provisions of this ordinance.

(10) Development or expansion of development for which the permit application was submitted prior to adoption of this ordinance is optionally exempt from the provisions of this ordinance per the requirements of N.C.G.S. 143-755.

6.5.3 NITROGEN REDUCTION REQUIREMENTS

Proposed development projects that would replace or expand existing structures and result in a net increase in built-upon area shall meet a nitrogen loading rate target of 3.6 pounds/acre/year.

Projects subject to this ordinance shall meet nitrogen loading targets through a combination of the following methods:

Projects may reduce export of nitrogen through any combination of engineered stormwater controls treating runoff on the site, in an approved offsite regional engineered stormwater control, or through the acquisition of permanent nutrient offset credits. The developer shall calculate the nitrogen reduction provided by these controls using the approved state accounting tool or other method approved by the state.

Proposed development undertaken by a local government solely as a public road expansion or public sidewalk project, or proposed development subject to the jurisdiction of the Surface Transportation Board, may meet nitrogen reduction needs for the project entirely through the use of permanent nutrient offset credits pursuant to the Nutrient Offset Credit Trading Rule, 15A NCAC 02B .0703.

Sufficient permanent nutrient offset credits to meet project nutrient reduction needs not provided by engineered stormwater controls serving the project shall be acquired prior to approval of the development plan. The Stormwater Administrator shall issue an approval letter for the development that documents the needed nitrogen credits and where the development is located relative to the Neuse Watershed Rules' geographic requirements. All permanent nutrient offset credits permitted by this ordinance shall meet the requirements of 15A NCAC 02B .0703.

Permanent nutrient offset credits shall be acquired pursuant to N.C.G.S. 143-214.26 and 15A NCAC 02B .0703 prior to the start of construction of the project.

A developer subject to this ordinance may acquire permanent nutrient offset credits through one of the following methods:

- (1) Through a private nutrient bank;
- (2) Through offsite offset provided by the developer and approved by name of local government;
- (3) Through payment into the Riparian Buffer Restoration Fund established in N.C.G.S. 143-214.21.

Note: Excess permanent nutrient offset credits acquired beyond what is required for the development may not be applied to any other development.

6.5.4 STORMWATER MANAGEMENT DESIGN

General engineering design criteria for all projects shall be in accordance with 15A NCAC 02H .1008 and the City of Goldsboro Engineering Department Standard Specifications and Details Manual.

In addition to the control measures outlined in 15A NCAC 02H .1008, stormwater management systems consisting of other control options or series of control options may be approved by the Engineering Director on a case-by-case basis. This approval shall only be given in cases where the applicant can demonstrate that the Alternative Design Criteria shall provide equal or better

stormwater control, equal or better protection of waters of the state, and result in no increased potential for nuisance conditions. The criteria for approval shall be that the stormwater management system shall provide for 85 percent average annual removal of Total Suspended Solids and that the discharge rate from the system meets one of the following:

- (1) the discharge rate following the one-inch design storm shall be such that the runoff volume draws down to the pre-storm design stage within five days, but not less than two
- (2) days; or
- (3) the post development discharge rate shall be no larger than predevelopment discharge rate for the one year 24 hour storm.

All engineered stormwater controls will meet the standards set in the City of Goldsboro Stormwater Management Plan, the City of Goldsboro Engineering Department Standard Specifications and Details Manual, and the State's Minimum Design Criteria, 15A NCAC 02H .1050 through .1062.

6.5.5 RIPARIAN BUFFERS

Riparian Buffers and their requirements are discussed in section 9.3.4 of the Stormwater Management Plan.

6.5.6 STORMWATER CONTROL MEASURES

Stormwater Control Measures and their requirements are discussed in section 9.4 of the Stormwater Management Plan.

6.5.7 PERMIT REQUIRED

No property owner or operator shall commence land disturbing activities, as defined in The City of Goldsboro Stormwater Management Program, before receiving a stormwater management permit and meeting the requirements of this ordinance. A stormwater management permit will also be required for construction, alteration, operation, maintenance, removal, or abandonment of any stormwater management structure (also known as an SCM) that has been, or is planned to be, put into operation after July 1, 2007. However, all SCMs that have been reviewed under The City of Goldsboro Stormwater Management Program prior to the enactment of this ordinance shall be deemed permitted from the date the site development plan was approved by the Engineering Director or their Designee.

6.5.8 APPLICATION REQUIREMENTS

Unless specifically excluded by The City of Goldsboro Stormwater Management Plan, any property owner or operator desiring a permit for a land disturbance activity shall submit to the City Engineer a permit application for stormwater management on a form provided for that purpose. A permit stormwater application must be accompanied by the following information in order for the stormwater permit application to be considered:

- A site plan showing SCM locations, construction details and specifications, drainage areas and directions, outfalls, and related information.

(a) SCM information, including applicable standards, maintenance and O&M requirements can be found in section 9.4 of the Stormwater Management Plan.

- For all storm sewer networks, calculations showing it has been sized for a minimum 10 year storm, for culverts under proposed or existing roads, calculations shall be for a minimum 25-year storm. For systems with curb and gutter, use an intensity of four inches per hour to calculate both spread and bypass flow.
- For detention and retention structures, stage routing and storage showing pre and post calculations for the design storm as shown in 6.5.4 as well as the ability to pass the 100-year design storm without overtopping.
- Calculations for reduction of peak runoff and nitrogen loading. The developer shall calculate the nitrogen reduction provided by these controls using the approved state accounting tool or other method approved by the state.
- A non-refundable stormwater review fee

Maintenance of all stormwater management facilities shall be ensured through the creation of a formal maintenance covenant that must be approved by the Engineering Director or Designee and recorded in the Wayne County Register of Deeds office.

- All stormwater management structures shall be located in recorded drainage easements for the purposes of operation and maintenance and shall have recorded access easements to the nearest public right of way. These easements shall be granted in favor of the party responsible for operating and maintaining the stormwater management structures and shall include access for City Inspectors and Engineering Department Personnel.
- The agreement shall provide for access to the facility at reasonable times for periodic inspection by the Engineering Director, a City employee, or agent of the City to ensure that the facility is maintained in proper working condition to meet design standards and any other provisions established by The City of Goldsboro Stormwater Management Plan.

6.5.9 APPLICATION REVIEW FEES

The fee for review of any land development application shall be based on the amount of land to be disturbed at the site, and the fee structure shall be established by the City of Goldsboro. All of the monetary contributions shall be credited to a City budgetary fund to support and maintain local plan review, inspection, and program administration; the fee shall be paid prior to the issuance of the stormwater management permit for the development.

6.5.10 APPLICATION PROCEDURE

a) Applications for land disturbance activity permits may be filed with the Engineering Department on only a regular business day.

b) Permit applications shall include the following: two copies of the Stormwater management plan, all relevant stormwater and nitrogen calculations, two copies of the draft maintenance agreement of any proposed SCM's, and any required review fees. Digital copies of all required documents are accepted in lieu of physical copies.

c) Within 30 calendar days of the acceptance of a complete permit application, including all documents as required by this ordinance, the Engineering Director shall inform the applicant in writing whether the application, plan and maintenance agreement are approved or disapproved.

d) If the permit application, stormwater management plan, or maintenance agreement are disapproved, the applicant may revise the stormwater management plan or agreement. If additional information is submitted, the Engineering Director shall have 15 business days from the date the additional information is received to inform the applicant in writing that the plan and maintenance agreement are either approved or disapproved.

e) If the permit application, final stormwater management plan, and maintenance agreement are approved by the Engineering Director, the stormwater management Permit shall be issued. Stormwater management permits shall be effective for (2) years from the date they are approved.

f) Permit applications which are deemed inactive in excess of 6 months shall require resubmittal of all documents and review fees.

6.5.11 PERMIT DURATION

Permits issued under this section shall be valid from the date of issuance for five (5) years, except that permits issued for removal or abandonment shall be permanent. Permit renewal applications shall be submitted 30 days prior to the expiration date, or upon any change of the owner/operator, which ever first occurs.

6.5.12 CRIMINAL PENALTIES

Any person who is found in violation of any provision of this Chapter, rule, regulation or order duly adopted or issued pursuant to this Chapter shall be guilty of a misdemeanor, punishable by a fine not to exceed \$100 per day until corrected. Each violation shall be a separate offense.

6.5.13 ORDER TO CORRECT VIOLATION

Upon a determination that such a violation exists, the Chief 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 Chapter.

6.5.14 FAILURE TO CORRECT VIOLATION; CORRECTION BY CITY

If any person, having been ordered to correct a known violation of this Chapter, fails, neglects, or refuses to correct the condition(s) within 180 days from receipt of the order, the Chief Building Inspector shall cause the condition to be remedied by having employees of the City or other designated persons go upon the premises and perform the necessary corrections under the supervision of an officer or employee designated by the City Manager.

6.5.15 COSTS OF CORRECTION

The actual cost incurred by the City to bring the development into compliance with the provisions of this Chapter 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.

6.5.16 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 6.5.15 above, such charges shall become a lien upon the land or premises where the violation existed, and shall be collected as unpaid ad valorem taxes, as provided in G.S. §160A-193. In the event the person or persons found in violation of this Chapter have divested themselves of the land or premises when the violation existed, the City may pursue the responsible person or persons for payment of the charges through other legal means.

6.5.17 PROCEDURE DEEMED ADDITIONAL TO OTHER REMEDIES

The procedure set forth in this Chapter 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 Chapter, and this Chapter shall not prevent the City from proceeding in a criminal action against any person, firm, or corporation violating the provisions of this Chapter as provided in G.S. § 14-4.

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APPENDIX B
Flood Damage Prevention Ordinance

CHAPTER 151: FLOOD DAMAGE PREVENTION

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GENERAL PROVISIONS

§ 151.01 STATUTORY AUTHORIZATION.

The Legislature of the State of North Carolina has in G.S. §§ 143-215.51 *et seq.*, 160A-174 *et seq.*, 160A-381 *et seq.*, 160A-411 *et seq.*, and 160A-456 *et seq.*, delegated to local governmental units the responsibility to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry.
(Ord. 2018-24, passed 5-21-18)

§ 151.02 FINDINGS OF FACT.

(A) The flood prone areas within the jurisdiction of the City of Goldsboro are subject to periodic inundation which results in loss of life, property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures of flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.

(B) These flood losses are caused by the cumulative effect of obstructions in floodplains causing increases in flood heights and velocities and by the occupancy in flood prone areas of uses vulnerable to floods or other hazards.

(Ord. 2018-24, passed 5-21-18)

§ 151.03 STATEMENT OF PURPOSE.

It is the purpose of this chapter to promote public health, safety, and general welfare, and to minimize public and private losses due to flood conditions within flood prone areas by provisions designed to:

- (A) Restrict or prohibit uses that are dangerous to health, safety, and property due to water or erosion hazards or that result in damaging increases in erosion, flood heights or velocities;
 - (B) Require that uses vulnerable to floods, including facilities that serve such uses, be protected against flood damage at the time of initial construction;
 - (C) Control the alteration of natural floodplains, stream channels, and natural protective barriers, which are involved in the accommodation of floodwaters;
 - (D) Control filling, grading, dredging, and all other development that may increase erosion or flood damage; and
 - (E) Prevent or regulate the construction of flood barriers that will unnaturally divert floodwaters or which may increase flood hazards to other lands.
- (Ord. 2018-24, passed 5-21-18)

§ 151.04 OBJECTIVES.

The objectives of this chapter are:

- (A) To protect human life and health;
 - (B) To minimize expenditure of public money for costly flood control projects;
 - (C) To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
 - (D) To minimize prolonged business losses and interruptions;
 - (E) To minimize damage to public facilities and utilities (for example, water and gas mains, electric, telephone, cable and sewer lines, streets, and bridges) that are located in flood prone areas;
 - (F) To minimize damage to private and public property due to flooding;
 - (G) To make flood insurance available to the community through the National Flood Insurance Program;
 - (H) To maintain the natural and beneficial functions of floodplains;
 - (I) To help maintain a stable tax base by providing for the sound use and development of flood prone areas; and
 - (J) To ensure that potential buyers are aware that property is in a Special Flood Hazard Area.
- (Ord. 2018-24, passed 5-21-18)

§ 151.05 DEFINITIONS.

For the purpose of this chapter, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

ACCESSORY STRUCTURE (APPURTENANT STRUCTURE). A structure, which is located on the same parcel of property as the principal structure and the use of which is incidental to the use of the principal structure. Garages, carports and storage sheds are common urban accessory structures. Pole barns, hay sheds and the like qualify as accessory structures on farms and may or may not be located on the same parcel as the farm dwelling or shop building.

ADDITION (TO AN EXISTING BUILDING). An extension or increase in the floor area or height of a building or structure.

ALTERATION OF A WATERCOURSE. A dam, impoundment, channel relocation, change in channel alignment, channelization, or change in cross-sectional area of the channel or the channel capacity, or any other form of modification which may alter, impede, retard or change the direction and/or velocity of the riverine flow of water during conditions of the base flood.

APPEAL. A request for a review of the Floodplain Administrator's interpretation of any provision of this chapter.

AREA OF SHALLOW FLOODING. A designated Zone AO or AH on a community's **FLOOD INSURANCE RATE MAP (FIRM)** with base flood depths determined to be from one to three feet. These areas are located where a clearly defined channel does not exist, where the path of flooding is unpredictable and indeterminate, and where velocity flow may be evident.

AREA OF SPECIAL FLOOD HAZARD. See **SPECIAL FLOOD HAZARD AREA (SFHA)**.

BASE FLOOD. The flood having a 1% chance of being equaled or exceeded in any given year.

BASE FLOOD ELEVATION (BFE). A determination as published in the **FLOOD INSURANCE STUDY** of the **WATER SURFACE ELEVATIONS** of the **BASE FLOOD**. This elevation, when combined with the **FREEBOARD**, establishes the **REGULATORY FLOOD PROTECTION ELEVATION**.

BASEMENT. Any area of the building having its floor subgrade (below ground level) on all sides.

BUILDING. See **STRUCTURE**.

CHEMICAL STORAGE FACILITY. A building, portion of a building, or exterior area adjacent to a building used for the storage of any chemical or chemically reactive products.

DESIGN FLOOD. See **REGULATORY FLOOD PROTECTION ELEVATION**.

DEVELOPMENT. Any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.

DEVELOPMENT ACTIVITY. Any activity defined as **DEVELOPMENT** which will necessitate a

FLOODPLAIN DEVELOPMENT PERMIT. This includes buildings, structures, and non-structural items, including, but not limited to, fill, bulkheads, piers, pools, docks, landings, ramps, and erosion control/stabilization measures.

DIGITAL FLOOD INSURANCE RATE MAP (DFIRM). The digital official map of a community, issued by the Federal Emergency Management Agency (FEMA), on which both the **SPECIAL FLOOD HAZARD AREAS** and the risk premium zones applicable to the community are delineated.

DISPOSAL. Defined as in G.S. § 130A-290(a)(6).

ELEVATED BUILDING. A non-basement building which has its reference level raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.

ENCROACHMENT. The advance or infringement of uses, fill, excavation, buildings, permanent structures or development into a floodplain, which may impede or alter the flow capacity of a floodplain.

EXISTING BUILDING AND EXISTING STRUCTURE. Any building and/or structure for which the **START OF CONSTRUCTION** commenced before the date of the community's entry into the NFIP, June 1, 1982.

EXISTING MANUFACTURED HOME PARK or MANUFACTURED HOME SUBDIVISION. A

manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) was completed before the date of the community's entry into the NFIP, June 1, 1982.

FLOOD or FLOODING. A general and temporary condition of partial or complete inundation of normally dry land areas from:

- (1) The overflow of inland or tidal waters; and/or
- (2) The unusual and rapid accumulation of runoff of surface waters from any source.

FLOOD BOUNDARY AND FLOODWAY MAP (FBFM). An official map of a community, issued by the Federal Emergency Management Agency, on which the **SPECIAL FLOOD HAZARD AREAS** and the floodways are delineated. This official map is a supplement to and shall be used in conjunction with the **FLOOD INSURANCE RATE MAP (FIRM)**.

FLOOD HAZARD BOUNDARY MAP (FHBM). An official map of a community, issued by the Federal Emergency Management Agency, where the boundaries of the **SPECIAL FLOOD HAZARD AREAS** have been defined as Zone A.

FLOOD INSURANCE. The insurance coverage provided under the National Flood Insurance Program.

FLOOD INSURANCE RATE MAP (FIRM). An official map of a community, issued by the Federal Emergency Management Agency, on which both the **SPECIAL FLOOD HAZARD AREAS** and the risk premium zones applicable to the community are delineated.

FLOOD INSURANCE STUDY (FIS). An examination, evaluation, and determination of flood hazard areas, corresponding water surface elevations (if appropriate), flood insurance risk zones, and other flood data in a community issued by the Federal Emergency Management Agency. The **FLOOD INSURANCE STUDY** report includes **FLOOD INSURANCE RATE MAPS (FIRMs)** and **FLOOD BOUNDARY AND FLOODWAY MAPS (FBFMs)**, if published.

FLOOD PRONE AREA. See **FLOODPLAIN**.

FLOOD ZONE. A geographical area shown on a **FLOOD HAZARD BOUNDARY MAP** or **FLOOD INSURANCE RATE MAP** that reflects the severity or type of flooding in the area.

FLOODPLAIN or **FLOOD PRONE AREA.** Any land area susceptible to being inundated by water from any source.

FLOODPLAIN ADMINISTRATOR. The individual appointed to administer and enforce the floodplain management regulations.

FLOODPLAIN DEVELOPMENT PERMIT. Any type of permit that is required in conformance with the provisions of this chapter, prior to the commencement of any development activity.

FLOODPLAIN MANAGEMENT. The operation of an overall program of corrective and preventive measures for reducing flood damage and preserving and enhancing, where possible, natural resources in the floodplain, including, but not limited to, emergency preparedness plans, flood control works, floodplain management regulations, and open space plans.

FLOODPLAIN REGULATIONS. This chapter and other zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances, and other applications of police power which control development in flood-prone areas. This term

describes federal, state, or local regulations, in any combination thereof, which provide standards for preventing and reducing flood loss and damage.

FLOODPROOFING. Any combination of structural and nonstructural additions, changes, or adjustments to structures, which reduce or eliminate risk of flood damage to real estate or improved real property, water and sanitation facilities, or structures with their contents.

FLOOD-RESISTANT MATERIAL. Any building product (material, component, or system) capable of withstanding direct and prolonged contact (minimum 72 hours) with floodwaters without sustaining damage that requires more than low-cost cosmetic repair. Any material that is water-soluble or is not resistant to alkali or acid in water, including normal adhesives for above-grade use, is not flood-resistant. Pressure-treated lumber or naturally decay-resistant lumbers are acceptable flooring materials. Sheet-type flooring coverings that restrict evaporation from below and materials that are impervious, but dimensionally unstable are not acceptable. Materials that absorb or retain water excessively after submergence are not flood-resistant. Please refer to Technical Bulletin 2, Flood Damage-Resistant Materials Requirements, available from the FEMA. Class 4 and 5 materials, referenced therein, are acceptable **FLOOD-RESISTANT MATERIALS**.

FLOODWAY. The channel of a river or other watercourse, including the area above a bridge or culvert when applicable, and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

FLOODWAY ENCROACHMENT ANALYSIS. An engineering analysis of the impact that a proposed encroachment into a floodway or non-encroachment area is expected to have on the floodway boundaries and flood levels during the occurrence of the base flood discharge. The evaluation shall be prepared by a qualified North Carolina licensed engineer using standard engineering methods and models.

FREEBOARD. The height added to the **BASE FLOOD ELEVATION (BFE)** to account for watershed development as well as limitations of the engineering methodologies for the determination of flood elevations. The **FREEBOARD** plus the **BASE FLOOD ELEVATION** establishes the **REGULATORY FLOOD PROTECTION ELEVATION**.

FUNCTIONALLY DEPENDENT FACILITY. A facility which cannot be used for its intended purpose unless it is located in close proximity to water, such as a docking or port facility necessary for the loading and unloading of cargo or passengers, shipbuilding, or ship repair. The term does not include long-term storage, manufacture, sales, or service facilities.

HAZARDOUS WASTE MANAGEMENT FACILITY. A facility for the collection, storage, processing, treatment, recycling, recovery, or disposal of hazardous waste as defined in G.S. §§

130A-290 *et seq.*

HIGHEST ADJACENT GRADE (HAG). The highest natural elevation of the ground surface, prior to construction, immediately next to the proposed walls of the structure.

HISTORIC STRUCTURE.

(1) Any structure that is:

- (a) Listed individually in the National Register of Historic Places (a listing maintained by the U.S. Department of Interior) or preliminarily determined by the Secretary of Interior as meeting the requirements for individual listing on the National Register;
- (b) Certified or preliminarily determined by the Secretary of Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
- (c) Individually listed on a local inventory of historic landmarks in communities with a "Certified Local Government (CLG) Program"; or (d) Certified as contributing to the historical significance of a historic district designated by a community with a "Certified Local Government (CLG) Program".

(2) Certified Local Government (CLG) Programs are approved by the U.S. Department of the Interior in cooperation with the North Carolina Department of Cultural Resources through the State Historic Preservation Officer as having met the requirements of the National Historic Preservation Act of 1966 as amended in 1980.

LETTER OF MAP CHANGE (LOMC). An official determination issued by FEMA that amends or revises an effective **FLOOD INSURANCE RATE MAP** or **FLOOD INSURANCE STUDY**. **LETTERS OF MAP CHANGE** include:

(1) **LETTER OF MAP AMENDMENT (LOMA).** An official amendment, by letter, to an effective National Flood Insurance Program map. A **LOMA** is based on technical data showing that a property had been inadvertently mapped as being in the **FLOODPLAIN**, but is actually on natural high ground above the **BASE FLOOD ELEVATION**. A **LOMA** amends the current effective **FLOOD INSURANCE RATE MAP** and establishes that a specific property, portion of a property, or structure is not located in a **SPECIAL FLOOD HAZARD AREA**.

(2) **LETTER OF MAP REVISION (LOMR).** A revision based on technical data that may show changes to **FLOOD ZONES**, flood elevations, **SPECIAL FLOOD HAZARD AREA** boundaries and floodway delineations, and other planimetric features.

(3) **LETTER OF MAP REVISION BASED ON FILL (LOMR-F).** A determination that a structure or parcel of land has been elevated by fill above the **BFE** and is, therefore, no longer located within the **SPECIAL FLOOD HAZARD AREA**. In order to qualify for this determination, the fill must have been permitted and placed in accordance with the community's floodplain management regulations.

(4) **CONDITIONAL LETTER OF MAP REVISION (CLOMR).** A formal review and comment as to whether a proposed project complies with the minimum NFIP requirements for such projects with respect to delineation of **SPECIAL FLOOD HAZARD AREAS**. A **CLOMR** does not revise the effective **FLOOD INSURANCE RATE MAP** or **FLOOD INSURANCE STUDY**; upon submission and approval of certified as-

built documentation, a **LETTER OF MAP REVISION** may be issued by FEMA to revise the effective **FIRM**.

LIGHT DUTY TRUCK. Any motor vehicle rated at 8,500 pounds gross vehicular weight rating or less which has a vehicular curb weight of 6,000 pounds or less and which has a basic vehicle frontal area of 45 square feet or less as defined in 40 CFR 86.082-2 and is:

- (1) Designed primarily for purposes of transportation of property or is a derivation of such a vehicle;
- (2) Designed primarily for transportation of persons and has a capacity of more than 12 persons; or
- (3) Available with special features enabling off-street or off-highway operation and use.

LOWEST ADJACENT GRADE (LAG). The lowest elevation of the ground, sidewalk or patio slab immediately next to the building, or deck support, after completion of the building.

LOWEST FLOOR. The subfloor, top of slab or grade of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access, or limited storage in an area other than a basement area is not considered a building's

LOWEST FLOOR, provided that such an enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this chapter.

MANUFACTURED HOME. A structure, transportable in one or more sections, which is built on a permanent chassis and designed to be used with or without a permanent foundation when connected to the required utilities. The term **MANUFACTURED HOME** does not include a **RECREATIONAL VEHICLE**.

MANUFACTURED HOME PARK OR SUBDIVISION. A parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

MARKET VALUE. The building value, excluding the land value and that of any accessory structures or other improvements on the lot, established by independent certified appraisal, replacement cost depreciated by age of building and quality of construction (actual cash value), or adjusted tax assessed values.

NEW CONSTRUCTION. Structures for which the **START OF CONSTRUCTION** commenced on or after May 17, 1982, the effective date of the initial floodplain management regulations and includes any subsequent improvements to such structures.

NONCONFORMING BUILDING OR DEVELOPMENT. Any legally existing building or development which fails to comply with the current provisions of this chapter.

NON-ENCROACHMENT AREA. The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the **WATER SURFACE ELEVATION** more than one foot as designated in the **FLOOD INSURANCE STUDY** report.

POST-FIRM. Construction or other development for which the **START OF CONSTRUCTION** occurred on or after June 1, 1982, the effective date of the initial **FLOOD INSURANCE RATE MAP**.

PRE-FIRM. Construction or other development for which the **START OF CONSTRUCTION** occurred before June 1, 1982, the effective date of the initial **FLOOD INSURANCE RATE MAP**.

PRINCIPALLY ABOVE GROUND. At least 51% of the actual cash value of the structure is above ground.

PUBLIC SAFETY AND/OR NUISANCE. Anything which is injurious to the safety or health of an entire community or neighborhood, or any considerable number of persons, or unlawfully obstructs the free passage or use, in the customary manner, of any navigable lake, or river, bay, stream, canal, or basin.

RECREATIONAL VEHICLE (RV).

(1) A vehicle, which is:

- (a) Built on a single chassis;
- (b) 400 square feet or less when measured at the largest horizontal projection;
- (c) Designed to be self-propelled or permanently towable by a light duty truck;
- (d) Not designed for use as a permanent primary dwelling, but as temporary living quarters for recreational, camping, travel, or seasonal use; and
- (e) Is fully licensed and ready for highway use.

(2) For the purpose of this chapter, "tiny homes/houses" and park models that do not meet the items listed above are not considered **RECREATIONAL VEHICLES** and should meet the standards of and be permitted as residential structures.

REFERENCE LEVEL. The top of the lowest horizontal structural member of the lowest floor or bottom of lowest attendant utility including ductwork for structures within all **SPECIAL FLOOD HAZARD AREAS**.

REGULATORY FLOOD PROTECTION ELEVATION. The **BASE FLOOD ELEVATION** plus the **FREEBOARD**. In **SPECIAL FLOOD HAZARD AREAS** where **BASE FLOOD ELEVATIONS (BFEs)** have been determined, this elevation shall be the **BFE** plus two feet. In **SPECIAL FLOOD HAZARD AREAS** where no **BFE** has been established, this elevation shall be at least two feet above the highest adjacent grade.

REMEDY A VIOLATION. To bring the structure or other development into compliance with state and community floodplain management regulations, or, if this is not possible,

to reduce the impacts of its noncompliance. Ways that impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of the chapter or otherwise deterring future similar violations, or reducing federal financial exposure with regard to the structure or other development.

RIVERINE. Relating to, formed by, or resembling a river (including tributaries), stream, brook, and the like.

SALVAGE YARD. Any non-residential property used for the storage, collection, and/or recycling of any type of equipment, and including but not limited to vehicles, appliances and related machinery.

SOLID WASTE DISPOSAL FACILITY. Any facility involved in the disposal of solid waste, as defined in G.S. § 130A-290(a)(35).

SOLID WASTE DISPOSAL SITE. As defined in G.S. § 130A-290(a)(36), any place at which solid wastes are disposed of by incineration, sanitary landfill, or any other method.

SPECIAL FLOOD HAZARD AREA (SFHA). The land in the **FLOODPLAIN** subject to a 1% or greater chance of being flooded in any given year as determined in § 151.07 of this chapter.

START OF CONSTRUCTION. Includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure (including a manufactured home) on a site, such as the pouring of slabs or footings, installation of piles, construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual **START OF CONSTRUCTION** means the first alteration of any wall, ceiling, floor, or other structural part of the building, whether or not that alteration affects the external dimensions of the building.

STRUCTURE. A walled and roofed building, a manufactured home, or a gas, liquid or liquified gas storage tank that is principally above ground. For floodplain management purposes, principally above ground means that at least 51% of the actual cash value of the structure is above ground.

SUBSTANTIAL DAMAGE. Damage of any origin sustained by a structure during any one-year period whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50% of the market value of the structure before the damage occurred. See definition of **SUBSTANTIAL IMPROVEMENT**.

SUBSTANTIAL IMPROVEMENT. Any combination of repairs, reconstruction, rehabilitation, addition, or other improvement of a structure, taking place during any one-year period for which the cost equals or exceeds 50% of the market value of the structure before the **START OF CONSTRUCTION** of the improvement. This term includes structures which have incurred

SUBSTANTIAL DAMAGE, regardless of the actual repair work performed. The term does not, however, include either:

- (1) Any correction of existing violations of state or community health, sanitary, or safety code specifications which have been identified by the community Code Enforcement Official and which are the minimum necessary to assure safe living conditions; or
- (2) Any alteration of a historic structure, provided that the alteration will not preclude the structure's continued designation as a historic structure and the alteration is approved by variance issued pursuant to § 151.24 of this chapter.

TECHNICAL BULLETIN and TECHNICAL FACT SHEET.

(1) A FEMA publication that provides guidance concerning the building performance standards of the NFIP, which are contained in Title 44 of the U.S. Code of Federal Regulations at § 60.3. The bulletins and fact sheets are intended for use primarily by state and local officials responsible for interpreting and enforcing NFIP regulations and by members of the development community, such as design professionals and builders. New bulletins, as well as updates of existing bulletins, are issued periodically as needed. The bulletins do not create regulations; rather they provide specific guidance for complying with the minimum requirements of existing NFIP regulations.

(2) It should be noted that **TECHNICAL BULLETINS** and **TECHNICAL FACT SHEETS** provide guidance on the minimum requirements of the NFIP regulations. State or community requirements that exceed those of the NFIP take precedence. Design professionals should contact the community officials to determine whether more restrictive state or local regulations apply to the building or site in question. All applicable standards of the state or local building code must also be met for any building in a flood hazard area.

TEMPERATURE CONTROLLED. Having the temperature regulated by a heating and/or cooling system, built-in or appliance.

VARIANCE. A grant of relief from the requirements of this chapter.

VIOLATION. The failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development

without the elevation certificate, other certifications, or other evidence of compliance required in §§ 151.20 through 151.24 and §§ 151.30 through 151.36 is presumed to be in violation until such time as that documentation is provided.

WATER SURFACE ELEVATION (WSE). The height, in relation to NAVD 1988, of floods of various magnitudes and frequencies in the floodplains of riverine areas.

WATERCOURSE. A lake, river, creek, stream, wash, channel or other topographic feature on or over which waters flow at least periodically. **WATERCOURSE** includes specifically designated areas in which substantial flood damage may occur. (Ord. 2018-24, passed 5-21-18)

§ 151.06 LANDS TO WHICH THIS CHAPTER APPLIES.

This chapter shall apply to all Special Flood Hazard Areas within the jurisdiction, including Extra- Territorial Jurisdictions (ETJ) if applicable, of the City of Goldsboro and within the jurisdiction of any other community whose governing body agrees, by resolution, to such applicability. (Ord. 2018-24, passed 5-21-18)

§ 151.07 BASIS FOR ESTABLISHING THE SPECIAL FLOOD HAZARD AREAS.

(A) The Special Flood Hazard Areas are those identified under the Cooperating Technical State (CTS) agreement between the State of North Carolina and FEMA in its FIS dated June 20, 2018 for Wayne County and associated DFIRM panels, including any digital data developed as part of the FIS, which are adopted by reference and declared a part of this chapter. Future revisions to the FIS and DFIRM panels that do not change flood hazard data within the jurisdictional authority of the City of Goldsboro are also adopted by reference and declared a part of this chapter. Subsequent Letter of Map Revisions (LOMRs) and/or Physical Map Revisions (PMRs) shall be adopted within three months. The Special Flood Hazard Areas also include those defined through standard engineering analysis for private developments or by governmental agencies, but which have not yet been incorporated in the FIRM. This includes, but is not limited to, detailed flood data generated as a requirement of §§ 151.22(K) and 151.22(L) of this chapter;

(B) In addition, upon annexation to the city or inclusion in the Extra-Territorial Jurisdiction (ETJ), the Special Flood Hazard Areas identified by the Federal Emergency Management Agency (FEMA) and/or produced under the Cooperating Technical State agreement between the State of North Carolina and FEMA as stated above, for the unincorporated areas of Wayne County, with accompanying maps and other supporting data, are adopted by reference and declared to be a part of this chapter. (Ord. 2018-24, passed 5-21-18)

§ 151.08 ESTABLISHMENT OF FLOODPLAIN DEVELOPMENT PERMIT.

A floodplain development permit shall be required in conformance with the provisions of this chapter prior to the commencement of any development activities within Special Flood Hazard Areas as determined in § 151.07.

(Ord. 2018-24, passed 5-21-18)

§ 151.09 COMPLIANCE.

No structure or land shall hereafter be located, extended, converted, altered, or developed in any way without full compliance with the terms of this chapter and other applicable regulations.

(Ord. 2018-24, passed 5-21-18)

§ 151.10 ABROGATION AND GREATER RESTRICTIONS.

This chapter is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this chapter and another conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

(Ord. 2018-24, passed 5-21-18)

§ 151.11 INTERPRETATION.

In the interpretation and application of this chapter, all provisions shall be:

- (A) Considered as minimum requirements;
- (B) Liberally construed in favor of the governing body; and
- (C) Deemed neither to limit nor repeal any other powers granted under state statutes.

(Ord. 2018-24, passed 5-21-18)

§ 151.12 WARNING AND DISCLAIMER OF LIABILITY.

The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering consideration. Larger floods can and will occur. Actual flood heights may be increased by man-made or natural causes. This chapter does not imply that land outside the Special Flood Hazard Areas or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of the City of Goldsboro or by any officer or employee thereof for any flood damages that result from reliance on this chapter or any administrative decision lawfully made hereunder.

(Ord. 2018-24, passed 5-21-18)

§ 151.13 PENALTIES FOR VIOLATION.

Violation of the provisions of this chapter or failure to comply with any of its requirements, including violation of conditions and safeguards established in connection with grants of variance or special exceptions, shall constitute a Class 1 misdemeanor pursuant to G.S. § 143-215.58. Any person who violates this chapter or fails to comply with any of its requirements shall, upon conviction thereof, be fined not more than \$100 or imprisoned for not more than 30 days, or both. Each day such violation continues shall be considered a separate offense. Nothing herein contained shall prevent City of Goldsboro from taking such other lawful action as is necessary to prevent or remedy any violation.

(Ord. 2018-24, passed 5-21-18)

ADMINISTRATION

§ 151.20 DESIGNATION OF FLOODPLAIN ADMINISTRATOR.

The City Engineer or his/her designee, hereinafter referred to as the "Floodplain Administrator", is hereby appointed to administer and implement the provisions of this chapter. In instances where the Floodplain Administrator receives assistance from others to complete tasks to administer and implement this chapter, the Floodplain Administrator shall be responsible for the coordination and community's overall compliance with the National Flood Insurance Program and the provisions of this chapter.

(Ord. 2018-24, passed 5-21-18)

§ 151.21 FLOODPLAIN DEVELOPMENT APPLICATION, PERMIT, CERTIFICATION REQUIREMENTS, AND DETERMINATIONS FOR EXISTING BUILDINGS AND STRUCTURES.

§ 151.21(1) APPLICATION REQUIREMENTS.

Application for a floodplain development permit and/or building permit shall be made to the Chief Building Inspector prior to any development activities located within Special Flood Hazard Areas. The following items shall be presented to the Chief Building Inspector to apply for a floodplain development permit and/or building permit:

(A) A plot plan drawn to scale which shall include, but shall not be limited to, the following specific details of the proposed floodplain development:

- (1) The nature, location, dimensions, and elevations of the area of development/disturbance; existing and proposed structures, utility systems, grading/pavement areas, fill materials, storage areas, drainage facilities, and other development;
- (2) The boundary of the Special Flood Hazard Area as delineated on the FIRM or other flood map as determined in § 151.07, or a statement that the entire lot is within the Special Flood Hazard Area;
- (3) Flood zone(s) designation of the proposed development area as determined on the FIRM or other flood map as determined in § 151.07;
- (4) The boundary of the floodway(s) or non-encroachment area(s) as determined in § 151.07;
- (5) The Base Flood Elevation (BFE) where provided as set forth in §§ 151.07, 151.22(K), 151.22(L), or 151.33;
- (6) The old and new location of any watercourse that will be altered or relocated as a result of proposed development; and
- (7) The certification of the plot plan by a registered land surveyor or professional engineer.

(B) Proposed elevation, and method thereof, of all development within a Special Flood Hazard Area including but not limited to:

- (1) Elevation in relation to NAVD 1988 of the proposed reference level (including basement) of all structures;

(2) Elevation in relation to NAVD 1988 to which any non-residential structure in Zone AE, A, AH, A99 or AO will be flood-proofed; and

(3) Elevation in relation to NAVD 1988 to which any proposed utility systems will be elevated or floodproofed.

(C) If floodproofing, a Floodproofing Certificate (FEMA Form 086-0-34) with supporting data, an operational plan, and an inspection and maintenance plan that include, but are not limited to, installation, exercise, and maintenance of floodproofing measures assuring their effectiveness when installed, and the entity responsible for transportation and installation according to the design within the warning time available. Floodproofing certificate and supporting data and operational plans shall be certified by a registered professional engineer or architect to ensure that the nonresidential floodproofed development will meet the floodproofing criteria in § 151.31(2).

(D) A Foundation Plan, drawn to scale, which shall include details of the proposed foundation system to ensure all provisions of this chapter are met. These details include, but are not limited to:

(1) The proposed method of elevation, if applicable (such as fill, solid foundation perimeter wall, solid backfilled foundation, open foundation on columns/posts/piers/piles/shear walls); and

(2) Openings to facilitate equalization of hydrostatic flood forces on walls in accordance with § 151.31(4), when solid foundation perimeter walls are used in Zones A, AO, AE, AH and A99.

(E) Usage details of any enclosed areas below the Regulatory Flood Protection Elevation.

(F) Plans and/or details for the protection of public utilities and facilities such as sewer, gas, electrical, and water systems to be located and constructed to minimize flood damage.

(G) Copies of all other local, state and federal permits required prior to floodplain development permit issuance (for example, wetlands, endangered species, erosion and sedimentation control, riparian buffers, mining, and the like).

(H) Documentation for placement of recreational vehicles and/or temporary structures, when applicable, to ensure §§ 151.31(6) and 151.31(7) of this chapter are met.

(I) A description of proposed watercourse alteration or relocation, when applicable, including an engineering report on the effects of the proposed project on the flood-carrying capacity of the watercourse and the effects to properties located both upstream and downstream; and a map (if not shown on plot plan) showing the location of the proposed watercourse alteration or relocation.

(Ord. 2018-24, passed 5-21-18)

§ 151.21(2) PERMIT REQUIREMENTS.

The floodplain development permit and/or the building permit shall include, but not be limited to:

(A) A complete description of all the development to be permitted under the floodplain

development permit (for example, house, garage, pool, septic, bulkhead, cabana, pier, bridge, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials, and the like).

(B) The Special Flood Hazard Area determination for the proposed development with available data specified in § 151.07.

(C) The Regulatory Flood Protection Elevation required for the reference level and all attendant utilities.

(D) The Regulatory Flood Protection Elevation required for the protection of all public utilities.

(E) All certification submittal requirements with timelines.

(F) A statement that no fill material or other development shall encroach into the floodway or non-encroachment area of any watercourse unless the requirements of § 151.35 have been met.

(G) The flood openings requirements, if in Zones A, AE, AH, AO, or A99.

(H) Limitations of below BFE enclosure uses (for example, parking, building access and limited storage only), if applicable.

(Ord. 2018-24, passed 5-21-18)

§ 151.21(3) CERTIFICATION REQUIREMENTS.

(A) *Elevation Certificates.*

(1) An Elevation Certificate (FEMA Form 086-0-33) is required prior to the actual start of any new construction. It shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of the elevation of the reference level, in relation to NAVD 1988. The Floodplain Administrator shall review the certificate data submitted.

Deficiencies detected by such review shall be corrected by the permit holder prior to the beginning of construction. Failure to submit the certification or failure to make required corrections shall be cause to deny a floodplain development permit.

(2) An Elevation Certificate (FEMA Form 086-0-33) is required after the reference level is established. Within seven calendar days of establishment of the reference level elevation, it shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of the elevation of the reference level, in relation to NAVD 1988. Elevation certification shall be prepared by, or under the direct supervision of a professional land surveyor. Any work done within the seven day calendar period and prior to submission of the certification shall be at the permit holder's risk. The Floodplain Administrator shall review the certificate data submitted. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to further work being permitted to proceed. Failure to submit the certification or failure to make required corrections shall be cause to issue a stop-work order for the project.

(3) A final Finished Construction Elevation Certificate (FEMA Form 086-0-33) is required after construction is completed and prior to Certificate of Compliance/Occupancy issuance. It shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of final as-built construction of the elevation of the reference level and all attendant utilities. Elevation certification shall be prepared by, or under the direct supervision of a professional land surveyor. The Floodplain Administrator shall review the certificate data submitted. Deficiencies detected by such review shall be

corrected by the permit holder immediately and prior to Certificate of Compliance/Occupancy issuance. In some instances, another certification may be required to certify corrected as-built construction. Failure to submit the certification or failure to make required corrections shall be cause to withhold the issuance of a Certificate of Compliance/Occupancy. The Finished Construction Elevation Certificate certifier shall provide at least two photographs showing the front and rear of the building taken within 90 days from the date of certification. The photographs must be taken with views confirming the building description and diagram number provided in Section A. To the extent possible, these photographs should show the entire building including foundation. If the building has split-level or multi-level areas, provide at least two additional photographs showing side views of the building. In addition, when applicable, provide a photograph of the foundation showing a representative example of the flood openings or vents. All photographs must be in color and measure at least three inches by three inches. Digital photographs are acceptable.

(B) Floodproofing Certificate.

(1) If non-residential floodproofing is used to meet the Regulatory Flood Protection Elevation requirements, a Floodproofing Certificate (FEMA Form 086-0-34), with supporting data, an operational plan, and an inspection and maintenance plan are required prior to the actual start of any new construction. It shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of the floodproofed design elevation of the reference level and all attendant utilities, in relation to NAVD 1988. Floodproofing certification shall be prepared by or under the direct supervision of a professional engineer or architect and certified by same. The Floodplain Administrator shall review the certificate data, the operational plan, and the inspection and maintenance plan. Deficiencies detected by such review shall be corrected by the applicant prior to permit approval. Failure to submit the certification or failure to make required corrections shall be cause to deny a Floodplain Development Permit. Failure to construct in accordance with the certified design shall be cause to withhold the issuance of a Certificate of Compliance/Occupancy.

(2) A final Finished Construction Floodproofing Certificate (FEMA Form 086-0-34), with supporting data, an operational plan, and an inspection and maintenance plan are required prior to the issuance of a Certificate of Compliance/Occupancy. It shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of the floodproofed design elevation of the reference level and all attendant utilities, in relation to NAVD 1988. Floodproofing certificate shall be prepared by or under the direct supervision of a professional engineer or architect and certified by same. The Floodplain Administrator shall review the certificate data, the operational plan, and the inspection and maintenance plan. Deficiencies detected by such review shall be corrected by the applicant prior to Certificate of Occupancy. Failure to submit the certification or failure to make required corrections shall be cause to deny a Floodplain Development Permit. Failure to construct in accordance with the certified design shall be cause to deny a Certificate of Compliance/Occupancy.

(C) If a manufactured home is placed within Zones A, AE, AH, AO, A99 and the elevation of the chassis is more than 36 inches in height above grade, an engineered foundation certification is required in accordance with the provisions of § 151.31(3).

(D) If a watercourse is to be altered or relocated, a description of the extent of watercourse alteration or relocation; a professional engineer's certified report on the effects of the proposed project on the flood-carrying capacity of the watercourse and the effects to properties located both upstream and downstream; and a map showing the location of the proposed watercourse alteration or relocation shall all be submitted by the permit applicant prior to issuance of a floodplain development permit.

(E) *Certification exemptions.* The following structures, if located within Zones A, AE, AH, AO, A99, are exempt from the elevation/floodproofing certification requirements specified in divisions (A) and (B) above:

- (1) Recreational vehicles meeting requirements of § 151.31(6)(A);
 - (2) Temporary structures meeting requirements of § 151.31(7); and
 - (3) Accessory structures less than 150 square feet meeting requirements of § 151.31(8).
- (Ord. 2018-24, passed 5-21-18)

§ 151.21(4) DETERMINATIONS FOR EXISTING BUILDINGS AND STRUCTURES.

For applications for building permits to improve buildings and structures, including alterations, movement, enlargement, replacement, repair, change of occupancy, additions, rehabilitations, renovations, substantial improvements, repairs of substantial damage, and any other improvement of or work on such buildings and structures, the Floodplain Administrator, in coordination with the Building Official, shall:

- (A) Estimate the market value, or require the applicant to obtain an appraisal of the market value prepared by a qualified independent appraiser, of the building or structure before the start of construction of the proposed work; in the case of repair, the market value of the building or structure shall be the market value before the damage occurred and before any repairs are made;
- (B) Compare the cost to perform the improvement, the cost to repair a damaged building to its pre-damaged condition, or the combined costs of improvements and repairs, if applicable, to the market value of the building or structure;
- (C) Determine and document whether the proposed work constitutes substantial improvement or repair of substantial damage; and
- (D) Notify the applicant if it is determined that the work constitutes substantial improvement or repair of substantial damage and that compliance with the flood resistant construction requirements of the North Carolina Building Code and this chapter is required.

(Ord. 2018-24, passed 5-21-18)

§ 151.22 DUTIES AND RESPONSIBILITIES OF THE FLOODPLAIN ADMINISTRATOR.

The Floodplain Administrator shall perform, but not be limited to, the following duties:

- (A) Review all floodplain development applications and issue permits for all proposed development within Special Flood Hazard Areas to assure that the requirements of this chapter have been satisfied.
- (B) Review all proposed development within Special Flood Hazard Areas to assure that all necessary local, state, and federal permits have been received, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334, and

require that copies of such permits be provided and maintained on file with the floodplain development permit.

(C) Notify adjacent communities and the North Carolina Department of Public Safety, Division of Emergency Management, State Coordinator for the National Flood Insurance Program prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency (FEMA).

(D) Assure that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is maintained.

(E) Prevent encroachments into floodways and non-encroachment areas unless the certification and flood hazard reduction provisions of § 151.34 or § 151.35, whichever is applicable, are met.

(F) Obtain actual elevation (in relation to NAVD 1988) of the reference level (including basement) and all attendant utilities of all new or substantially improved structures, in accordance with § 151.21(3).

(G) Obtain the actual elevation (in relation to NAVD 1988) to which the new or substantially improved structures and all utilities have been floodproofed, in accordance with § 151.21(3).

(H) Obtain actual elevation (in relation to NAVD 1988) of all public utilities in accordance with § 151.21(3).

(I) When floodproofing is utilized for a particular structure, obtain certifications from a registered professional engineer or architect in accordance with §§ 151.21(3) and 151.31(2).

(J) Where interpretation is needed as to the exact location of boundaries of the Special Flood Hazard Areas, floodways, or non-encroachment areas (for example, where there appears to be a conflict between a mapped boundary and actual field conditions), make the necessary interpretation. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in this § 151.23(4).

(K) When Base Flood Elevation (BFE) data has not been provided in accordance with § 151.07, obtain, review, and reasonably utilize any Base Flood Elevation (BFE) data, along with floodway data or non-encroachment area data available from a federal, state, or other source, including data developed pursuant to § 151.33(B)(2), in order to administer the provisions of this chapter.

(L) When Base Flood Elevation (BFE) data is provided but no floodway nor non-encroachment area data has been provided in accordance with § 151.07, obtain, review, and reasonably utilize any floodway data or non-encroachment area data available from a federal, state, or other source in order to administer the provisions of this chapter.

(M) When the exact location of boundaries of the Special Flood Hazard Areas conflict with the current, natural topography information at the site, the property owner may apply and be approved for a Letter of Map Amendment (LOMA) by FEMA. Maintain a copy of the Letter of Map Amendment (LOMA) issued by FEMA in the Floodplain Development Permit file.

(N) Permanently maintain all records that pertain to the administration of this chapter and make these records available for public inspection, recognizing that such information may be subject to the Privacy Act of 1974, as amended.

(O) Make on-site inspections of work in progress. As the work pursuant to a floodplain development permit progresses, the Floodplain Administrator and/or Chief Building Inspector shall make as many inspections of the work as may be necessary to ensure that the work is being done according to the provisions of the local ordinance and the terms of the permit. In exercising this power, the Floodplain Administrator and/or Chief Building Inspector has a right, upon presentation of proper credentials, to enter on any premises within the jurisdiction of the community at any reasonable hour for the purposes of inspection or other enforcement action.

(P) Issue stop-work orders as required. Whenever a building or part thereof is being constructed, reconstructed, altered, or repaired in violation of this chapter, the Floodplain Administrator or Chief Building Inspector may order the work to be immediately stopped. The stop-work order shall be in writing and directed to the person doing or in charge of the work. The stop-work order shall state the specific work to be stopped, the specific reason(s) for the stoppage, and the condition under which the work may be resumed. Violation of a stop-work order constitutes a misdemeanor.

(Q) Revoke floodplain development permits as required. The Floodplain Administrator or Chief Building Inspector may revoke and require the return of the floodplain development permit by notifying the permit holder in writing stating the reason(s) for the revocation. Permits shall be revoked for any substantial departure from the approved application, plans, or specifications; for refusal or failure to comply with the requirements of state or local laws, or for false statements or misrepresentations made in securing the permit. Any floodplain development permit mistakenly issued in violation of an applicable state or local law may also be revoked.

(R) Make periodic inspections throughout all Special Flood Hazard Areas within the jurisdiction of the community. The Floodplain Administrator or Chief Building Inspector and each member of his or her inspections department shall have a right, upon presentation of proper credentials, to enter on any premises within the territorial jurisdiction of the department at any reasonable hour for the purposes of inspection or other enforcement action.

(S) Follow through with corrective procedures of § 151.23.

(T) Review, provide input, and make recommendations for variance requests.

(U) Maintain a current map repository to include, but not limited to, historical and effective FIS report, historical and effective FIRM and other official flood maps and studies adopted under § 151.07 of this chapter, including any revisions thereto including Letters of Map Change, issued by FEMA. Notify state and FEMA of mapping needs.

(V) Coordinate revisions to FIS reports and FIRMs, including Letters of Map Revision Based on Fill (LOMR-Fs) and Letters of Map Revision (LOMRs).

(Ord. 2018-24, passed 5-21-18)

§ 151.23 CORRECTIVE PROCEDURES.

§ 151.23(1) VIOLATIONS TO BE CORRECTED.

When the Floodplain Administrator or Chief Building Inspector finds violations of applicable state and local laws, it shall be his or her duty to notify the owner or occupant

of the building of the violation. The owner or occupant shall immediately remedy each of the violations of law pertaining to their property.
(Ord. 2018-24, passed 5-21-18)

§ 151.23(2) ACTIONS IN EVENT OF FAILURE TO TAKE CORRECTIVE ACTION.

If the owner of a building or property shall fail to take prompt corrective action, the Floodplain Administrator or Chief Building Inspector shall give the owner written notice, by certified or registered mail to the owner's last known address or by personal service, stating:

- (A) That the building or property is in violation of the Flood Damage Prevention chapter;
- (B) That a hearing will be held before the Floodplain Administrator or Chief Building Inspector at a designated place and time, not later than ten days after the date of the notice, at which time the owner shall be entitled to be heard in person or by counsel and to present arguments and evidence pertaining to the matter; and
- (C) That following the hearing, the Floodplain Administrator or Chief Building Inspector may issue an order to alter, vacate, or demolish the building; or to remove fill as appears appropriate.

(Ord. 2018-24, passed 5-21-18)

§ 151.23(3) ORDER TO TAKE CORRECTIVE ACTION.

If, upon a hearing held pursuant to the notice prescribed above, the Floodplain Administrator or Chief Building Inspector shall find that the building or development is in violation of the Flood Damage Prevention chapter, he or she shall issue an order in writing to the owner, requiring the owner to remedy the violation within a specified time period, not less than 60 calendar days, nor more than 180 calendar days. Where the Floodplain Administrator or Chief Building Inspector finds that there is imminent danger to life or other property, he or she may order that corrective action be taken in such lesser period as may be feasible.

(Ord. 2018-24, passed 5-21-18)

§ 151.23(4) APPEAL.

Any owner who has received an order to take corrective action may appeal the order to the local elected governing body by giving notice of appeal in writing to the Floodplain Administrator or Chief Building Inspector and the clerk within ten days following issuance of the final order. In the absence of an appeal, the order of the Floodplain Administrator or Chief Building Inspector shall be final. The local governing body shall hear an appeal within a reasonable time and may affirm, modify and affirm, or revoke the order.

(Ord. 2018-24, passed 5-21-18)

§ 151.23(5) FAILURE TO COMPLY WITH ORDER.

If the owner of a building or property fails to comply with an order to take corrective action for which no appeal has been made or fails to comply with an order of the governing body following an appeal, the owner shall be guilty of a Class 1 misdemeanor pursuant to G.S. § 143-215.58 and shall be punished at the discretion of the court.

(Ord. 2018-24, passed 5-21-18)

§ 151.24 VARIANCE PROCEDURES.

(A) The Planning Commission/Board of Adjustment as established by the city, hereinafter referred to as the "Appeal Board", shall hear and decide requests for variances from the requirements of this chapter.

(B) Any person aggrieved by the decision of the Appeal Board may appeal such decision to the court, as provided in G.S. Chapter 7A.

(C) Variances may be issued for:

(1) The repair or rehabilitation of historic structures upon the determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and that the variance is the minimum necessary to preserve the historic character and design of the structure.

(2) Functionally dependent facilities if determined to meet the definition as stated in § 151.05 of this chapter, provided provisions of §§ 151.24(G), 151.24(H)(2) and 151.24(H)(3) have been satisfied, and such facilities are protected by methods that minimize flood damages during the base flood and create no additional threats to public safety; or

(3) Any other type of development provided it meets the requirements stated in this section.

(D) In passing upon variances, the Appeal Board shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this chapter, and:

(1) The danger that materials may be swept onto other lands to the injury of others;

(2) The danger to life and property due to flooding or erosion damage;

(3) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

(4) The importance of the services provided by the proposed facility to the community;

(5) The necessity to the facility of a waterfront location as defined under § 151.05 of this chapter as a functionally dependent facility, where applicable;

(6) The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;

(7) The compatibility of the proposed use with existing and anticipated development;

(8) The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;

(9) The safety of access to the property in times of flood for ordinary and emergency vehicles;

(10) The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site; and

(11) The costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, and streets and bridges.

(E) A written report addressing each of the above factors shall be submitted with the application for a variance.

(F) Upon consideration of the factors listed above and the purposes of this chapter, the Appeal Board may attach such conditions to the granting of variances as it deems necessary to further the purposes and objectives of this chapter.

(G) Variances shall not be issued within any designated floodway or non-encroachment area if any increase in flood levels during the base flood discharge would result.

(H) *Conditions for variances.*

(1) Variances shall not be issued when the variance will make the structure in violation of other federal, state, or local laws, regulations, or ordinances.

(2) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

(3) Variances shall only be issued upon:

(a) A showing of good and sufficient cause;

(b) A determination that failure to grant the variance would result in exceptional hardship; and

(c) A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, or extraordinary public expense, create nuisance, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.

(4) Any applicant to whom a variance is granted shall be given written notice specifying the difference between the BFE and the elevation to which the structure is to be built and that such construction below the BFE increases risks to life and property, and that the issuance of a variance to construct a structure below the BFE may result in increased premium rates for flood insurance up to \$25 per \$100 of insurance coverage. Such notification shall be maintained with a record of all variance actions, including justification for their issuance.

(5) The Floodplain Administrator shall maintain the records of all appeal actions and report any variances to the Federal Emergency Management Agency and the State of North Carolina upon request.

(6) Variances shall only be issued prior to development permit approval.

(I) A variance may be issued for solid waste disposal facilities or sites, hazardous waste management facilities, salvage yards, and chemical storage facilities that are located in Special Flood Hazard Areas provided that all of the following conditions are met:

(1) The use serves a critical need in the community;

(2) No feasible location exists for the use outside the Special Flood Hazard Area;

(3) The reference level of any structure is elevated or floodproofed to at least the regulatory flood protection elevation;

(4) The use complies with all other applicable federal, state, and local laws; and

(5) The City of Goldsboro has notified the Secretary of the North Carolina Department of Public Safety of its intention to grant a variance at least 30 calendar days prior to granting the variance.

(Ord. 2018-24, passed 5-21-18)

PROVISIONS FOR FLOOD HAZARD REDUCTION

§ 151.30 GENERAL STANDARDS.

In all Special Flood Hazard Areas the following provisions are required.

(A) All new construction and substantial improvements shall be anchored to prevent flotation, collapse, and lateral movement of the structure.

- (B) All new construction and substantial improvements below the Regulatory Flood Protection Elevation shall be constructed with materials and utility equipment resistant to flood damage in accordance with the FEMA Technical Bulletin 2, Flood Damage-Resistant Materials Requirements.
- (C) All new construction or substantial improvements shall be constructed by methods and practices that minimize flood damages.
- (D) All new electrical, heating, ventilation, plumbing, air conditioning equipment, and other service equipment shall be located at or above the RFPE or designed and installed to prevent water from entering or accumulating within the components during the occurrence of the base flood. These include, but are not limited to, HVAC equipment, water softener units, bath/kitchen fixtures, ductwork, electric/gas meter panels/boxes, utility/cable boxes, water heaters, and electric outlets/switches.
- (1) Replacements part of a substantial improvement, electrical, heating, ventilation, plumbing, air conditioning equipment, and other service equipment shall also meet the above provisions.
- (2) Replacements that are for maintenance and not part of a substantial improvement, may be installed at the original location provided the addition and/or improvements only comply with the standards for new construction consistent with the code and requirements for the original structure.
- (E) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.
- (F) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into floodwaters.
- (G) On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.
- (H) Nothing in this chapter shall prevent the repair, reconstruction, or replacement of a building or structure existing on the effective date of this ordinance and located totally or partially within the floodway, non-encroachment area, or stream setback, provided there is no additional encroachment below the Regulatory Flood Protection Elevation in the floodway, non-encroachment area, or stream setback, and provided that such repair, reconstruction, or replacement meets all of the other requirements of this chapter.
- (I) New solid waste disposal facilities, hazardous waste management facilities, salvage yards, and chemical storage facilities shall not be permitted in Special Flood Hazard Areas, except by variance as specified in § 151.24(I). A structure or tank for chemical or fuel storage incidental to an allowed use or to the operation of a water treatment plant or wastewater treatment facility may be located in a Special Flood Hazard Area only if the structure or tank is either elevated or floodproofed to at least the regulatory flood protection elevation and certified according to § 151.21(3) of this chapter.
- (J) All development proposals shall be consistent with the need to minimize flood damage.
- (K) All development proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage.
- (L) All development proposals shall have adequate drainage provided to reduce exposure to flood hazards.

(M) All subdivision proposals and other development proposals shall have received all necessary permits from those governmental agencies for which approval is required by federal or state law, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334.

(N) When a structure is partially located in a Special Flood Hazard Area, the entire structure shall meet the requirements for new construction and substantial improvements.

(O) When a structure is located in multiple flood hazard zones or in a flood hazard risk zone with multiple Base Flood Elevations, the provisions for the more restrictive flood hazard risk zone and the highest BFE shall apply.

(Ord. 2018-24, passed 5-21-18)

§ 151.31 SPECIFIC STANDARDS.

In all Special Flood Hazard Areas where Base Flood Elevation (BFE) data has been provided, as set forth in §§ 151.07, 151.22(K) or 151.22(E), the following provisions, in addition to § 151.30, are required.

(Ord. 2018-24, passed 5-21-18)

§ 151.31(1) RESIDENTIAL CONSTRUCTION.

New construction and substantial improvement of any residential structure (including manufactured homes) shall have the reference level, including basement, elevated no lower than the regulatory flood protection elevation, as defined in § 151.05 of this chapter.

(Ord. 2018-24, passed 5-21-18)

§ 151.31(2) NON-RESIDENTIAL CONSTRUCTION.

New construction and substantial improvement of any commercial, industrial, or other nonresidential structure shall have the reference level, including basement, elevated no lower than the regulatory flood protection elevation, as defined in § 151.05 of this chapter. Structures located in A, AO, AE and A99 Zones may be floodproofed to the regulatory flood protection elevation in lieu of elevation provided that all areas of the structure, together with attendant utility and sanitary facilities, below the required flood protection elevation are watertight with walls substantially impermeable to the passage of water, using structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. For AO Zones, the floodproofing elevation shall be in accordance with § 151.36(B). A registered professional engineer or architect shall certify that the standards of this section are satisfied. Such certification shall be provided to the Floodplain Administrator or Chief Building Inspector as set forth in § 151.21(3), along with the operational, inspection, and maintenance plans.

(Ord. 2018-24, passed 5-21-18)

§ 151.31(3) MANUFACTURED HOMES.

(A) New or replacement manufactured homes shall be elevated so that the reference level of the manufactured home is no lower than the regulatory flood protection elevation, as defined in § 151.05 of this chapter.

(B) Manufactured homes shall be securely anchored to an adequately anchored foundation to resist flotation, collapse, and lateral movement in accordance with the most current edition of the State of North Carolina Regulations for Manufactured/Mobile Homes, adopted by the Commissioner of Insurance pursuant to G.S. § 143-143.15. Additionally, when the elevation would be met by an elevation of the chassis 36 inches or less above the grade at the site, the chassis shall be supported by reinforced piers or engineered foundation. When the elevation of the chassis is above 36 inches in height, an engineering certification is required.

(C) All foundation enclosures or skirting below the lowest floor shall be in accordance with § 151.31(4).

(D) An evacuation plan must be developed for evacuation of all residents of all new, substantially improved or substantially damaged manufactured home parks or subdivisions located within flood prone areas. This plan shall be filed with and approved by the Floodplain Administrator and the local Emergency Management Coordinator. (Ord. 2018-24, passed 5-21-18)

§ 151.31(4) ELEVATED BUILDINGS.

Enclosed areas, of new construction or substantially improved structures, which are below the regulatory flood protection elevation:

(A) Shall not be designed or used for human habitation, but shall only be used for parking of vehicles, building access, or limited storage of maintenance equipment used in connection with the premises. Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance equipment (standard exterior door), or entry to the living area (stairway or elevator). The interior portion of such enclosed area shall not be partitioned or finished into separate rooms, except to enclose storage areas

(B) Shall not be temperature-controlled or conditioned;

(C) Shall be constructed entirely of flood resistant materials below the regulatory flood protection elevation; and

(D) Shall include, in Zones A, AO, AE, AH and A99, measures to automatically equalize hydrostatic flood forces on walls by allowing for the entry and exit of floodwaters. To meet this requirement, the openings must either be certified by a professional engineer or architect or meet the following minimum design criteria;

(1) Provide a minimum of two openings on different sides of each enclosed area subject to flooding;

(2) The total net area of all openings must be at least one square inch for each square foot of enclosed area subject to flooding;

(3) If a building has more than one enclosed area, each area must have openings to allow floodwaters to automatically enter and exit;

(4) The bottom of all required openings shall be no higher than one foot above the higher of the interior or exterior adjacent grade;

(5) Flood openings may be equipped with screens, louvers, or other opening coverings or devices, provided they permit the automatic flow of floodwaters in both directions; and

(6) Foundation enclosures made of flexible skirting are not considered enclosures for regulatory purposes, and, therefore, do not require flood openings. Masonry or wood

underpinning, regardless of structural status, is considered an enclosure and requires openings as outlined above.

(E) Property owners shall be required to execute and record a non-conversion agreement prior to issuance of a building permit declaring that the area below the Regulatory Flood Protection

Elevation shall not be improved, finished or otherwise converted to habitable space; The City of Goldsboro will have the right to inspect the enclosed area. The City of Goldsboro will conduct annual inspections. This agreement shall be recorded with the Wayne County Register of Deeds and shall transfer with the property in perpetuity.

(F) Release of restrictive covenant. If a property which is bound by a non-conversion agreement is modified to remove enclosed areas below Regulatory Flood Protection Elevation, then the owner may request release of restrictive covenant after staff inspection and submittal of confirming documentation.

(Ord. 2018-24, passed 5-21-18)

§ 151.31(5) ADDITIONS/IMPROVEMENTS.

(A) Additions and/or improvements to pre-FIRM structures when the addition and/or improvements in combination with any interior modifications to the existing structure are:

(1) Not a substantial improvement, the addition and/or improvements must be designed to minimize flood damages and must not be any more nonconforming than the existing structure.

(2) A substantial improvement, with modifications/rehabilitations/improvements to the existing structure or the common wall is structurally modified more than installing a doorway, both the existing structure and the addition must comply with the standards for new construction.

(B) Additions to pre-FIRM or post-FIRM structures that are a substantial improvement with no modifications/rehabilitations/improvements to the existing structure other than a standard door in the common wall, shall require only the addition to comply with the standards for new construction.

(C) Additions and/or improvements to post-FIRM structures when the addition and/or improvements in combination with any interior modifications to the existing structure are:

(1) Not a substantial improvement, the addition and/or improvements only must comply with the standards for new construction consistent with the code and requirements for the original structure.

(2) A substantial improvement, both the existing structure and the addition and/or improvements must comply with the standards for new construction.

(D) Where a fire wall or independent perimeter load-bearing wall is provided between the addition and the existing building, the addition(s) shall be considered a separate building and only the addition must comply with the standards for new construction.

(E) Any combination of repair, reconstruction, rehabilitation, addition or improvement of a building or structure taking place during a one year period, the cumulative cost of which equals or exceeds 50% of the market value of the structure before the improvement or repair is started must comply with the standards for new construction.

For each building or structure, the one year period begins on the date of the first improvement or repair of that building or structure subsequent to the effective date of

this chapter. Substantial damage also means flood-related damage sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds 25% of the market value of the structure before the damage occurred. If the structure has sustained substantial damage, any repairs are considered substantial improvement regardless of the actual repair work performed. The requirement does not, however, include either:

- (1) Any project for improvement of a building required to correct existing health, sanitary or safety code violations identified by the building official and that are the minimum necessary to assume safe living conditions.
- (2) Any alteration of a historic structure provided that the alteration will not preclude the structure's continued designation as a historic structure.

(Ord. 2018-24, passed 5-21-18)

§ 151.31(6) RECREATIONAL VEHICLES.

Recreational vehicles placed on sites within a Special Flood Hazard Area shall either:

- (A) Be on site for fewer than 180 consecutive days and be fully licensed and ready for highway use (a recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities, and has no permanently attached additions); or
- (B) Meet all the requirements for new construction, including anchoring and elevation requirements of §§ 151.21, 151.30 and 151.31(3).

(Ord. 2018-24, passed 5-21-18)

§ 151.31(7) TEMPORARY NON-RESIDENTIAL STRUCTURES.

Prior to the issuance of a floodplain development permit and/or building permit for a temporary structure, applicants must submit to the Floodplain Administrator a plan for the removal of such structure(s) in the event of a hurricane, flash flood or other type of flood warning notification. The following information shall be submitted in writing to the Floodplain Administrator for review and written approval:

- (A) A specified time period for which the temporary use will be permitted. Time specified may not exceed three months, renewable up to one year;
- (B) The name, address, and phone number of the individual responsible for the removal of the temporary structure;
- (C) The time frame prior to the event at which a structure will be removed (for example, minimum of 72 hours before landfall of a hurricane or immediately upon flood warning notification);
- (D) A copy of the contract or other suitable instrument with the entity responsible for physical removal of the structure; and
- (E) Designation, accompanied by documentation, of a location outside the Special Flood Hazard Area, to which the temporary structure will be moved.

(Ord. 2018-24, passed 5-21-18)

§ 151.31(8) ACCESSORY STRUCTURES.

When accessory structures (sheds, detached garages and the like) are to be placed within a Special Flood Hazard Area, the following criteria shall be met:

- (A) Accessory structures shall not be used for human habitation (including working, sleeping, living, cooking or restroom areas);
 - (B) Accessory structures shall not be temperature-controlled;
 - (C) Accessory structures shall be designed to have low flood damage potential;
 - (D) Accessory structures shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters;
 - (E) Accessory structures shall be firmly anchored in accordance with § 151.30(A);
 - (F) All service facilities such as electrical shall be installed in accordance with § 151.30(D);
 - (G) Openings to relieve hydrostatic flood forces shall be provided below regulatory flood protection elevation in conformance with § 151.31(4)(C); and
 - (H) An accessory structure with a footprint less than 150 square feet that satisfies the criteria outlined above is not required to meet the elevation or floodproofing standards of § 151.31(2). Elevation or floodproofing certifications are required for all other accessory structures in accordance with § 151.21(3).
- (Ord. 2018-24, passed 5-21-18)

§ 151.31(9) TANKS.

When gas and liquid storage tanks are to be placed within a Special Flood Hazard Area, the following criteria shall be met.

- (A) *Underground tanks.* Underground tanks in flood hazard areas shall be anchored to prevent flotation, collapse, or lateral movement resulting from hydrodynamic and hydrostatic loads during conditions of the design flood, including the effects of buoyancy assuming the tank is empty;
 - (B) *Above-ground tanks, elevated.* Above-ground tanks in flood hazard areas shall be elevated to or above the Regulatory Flood Protection Elevation on a supporting structure that is designed to prevent flotation, collapse, or lateral movement during conditions of the design flood. Tank supporting structures shall meet the foundation requirements of the applicable flood hazard area;
 - (C) *Above-ground tanks not elevated.* Above-ground tanks that do not meet the elevation requirements of § 151.31(2) shall be permitted in flood hazard areas provided the tanks are designed, constructed, installed, and anchored to resist all flood-related and other loads, including the effects of buoyancy, during conditions of the design flood and without release of contents in the floodwaters or infiltration by floodwaters into the tanks. Tanks shall be designed, constructed, installed, and anchored to resist the potential buoyant and other flood forces acting on an empty tank during design flood conditions.
 - (D) *Tank inlets and vents.* Tank inlets, fill openings, outlets and vents shall be:
 - (1) At or above the Regulatory Flood Protection Elevation or fitted with covers designed to prevent the inflow of floodwater or outflow of the contents of the tanks during conditions of the design flood; and
 - (2) Anchored to prevent lateral movement resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy, during conditions of the design flood.
- (Ord. 2018-24, passed 5-21-18)

§ 151.31(10) OTHER DEVELOPMENT.

(A) Fences in regulated floodways and non-encroachment areas that have the potential to block the passage of floodwaters, such as stockade fences and wire mesh fences, shall meet the limitations of § 151.35 of this chapter.

(B) Retaining walls, sidewalks and driveways in regulated floodways and non-encroachment areas. Retaining walls and sidewalks and driveways that involve the placement of fill in regulated floodways shall meet the limitations of § 151.35 of this chapter.

(C) Roads and watercourse crossings in regulated floodways and non-encroachment areas. Roads and watercourse crossings, including roads, bridges, culverts, low-water crossings and similar means for vehicles or pedestrians to travel from one side of a watercourse to the other side, that encroach into regulated floodways shall meet the limitations of § 151.35 of this chapter.

(Ord. 2018-24, passed 5-21-18)

§ 151.32 RESERVED.

§ 151.33 STANDARDS FOR FLOODPLAINS WITHOUT ESTABLISHED BASE FLOOD ELEVATIONS.

Within the Special Flood Hazard Areas designated as Approximate Zone A and established in § 151.21(3), where no Base Flood Elevation (BFE) data has been provided by FEMA, the following provisions, in addition to § 151.30, shall apply:

(A) No encroachments, including fill, new construction, substantial improvements or new development shall be permitted within a distance of 20 feet each side from top of bank or five times the width of the stream, whichever is greater, unless certification with supporting technical data by a registered professional engineer is provided demonstrating that such encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

(B) The BFE used in determining the regulatory flood protection elevation shall be determined based on one of the following criteria set in priority order:

(1) When Base Flood Elevation (BFE) data is available from other sources, all new construction and substantial improvements within such areas shall also comply with all applicable provisions of this chapter and shall be elevated or floodproofed in accordance with standards in §§ 151.22(K) and 151.22(L);

(2) When floodway or non-encroachment data is available from a federal, state, or other source, all new construction and substantial improvements within floodway and non-encroachment areas shall also comply with § 151.35 of this chapter;

(3) All subdivision, manufactured home park and other development proposals located within Special Flood Hazard Areas shall provide Base Flood Elevation (BFE) data if development is greater than five acres or has more than 50 lots/manufactured home sites. The Base Flood Elevation (BFE) data shall be adopted by reference per § 151.07 to be utilized in implementing this chapter; or

(4) When Base Flood Elevation (BFE) data is not available from a federal, state, or other source as outlined above, the reference level shall be elevated or floodproofed (non-

residential) to or above the regulatory flood protection elevation, as defined in § 151.05. All other applicable provisions of § 151.31 shall also apply.
(Ord. 2018-24, passed 5-21-18)

§ 151.34 STANDARDS FOR RIVERINE FLOODPLAINS WITH BASE FLOOD ELEVATION BUT WITHOUT ESTABLISHED FLOODWAYS OR NON-ENCROACHMENT AREAS.

Along rivers and streams where BFE data is provided by FEMA or is available from another source but neither floodway nor non-encroachment areas are identified for a Special Flood Hazard Area on the FIRM or in the FIS report, the following requirements shall apply to all development within such areas:

(A) Standards outlined in §§ 151.30 and 151.31; and

(B) Until a regulatory floodway or non-encroachment area is designated, no encroachments, including fill, new construction, substantial improvements, or other development, shall be permitted unless certification with supporting technical data by a registered professional engineer is provided demonstrating that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.

(Ord. 2018-24, passed 5-21-18)

§ 151.35 FLOODWAYS AND NON-ENCROACHMENT AREAS.

Areas designated as floodways or non-encroachment areas are located within the Special Flood Hazard Areas established in § 151.07. The floodways and non-encroachment areas are extremely hazardous areas due to the velocity of floodwaters that have erosion potential and carry debris and potential projectiles. The following provisions, in addition to standards outlined in §§ 151.30 and 151.31, shall apply to all development within such areas.

(A) No encroachments, including fill, new construction, substantial improvements and other developments shall be permitted unless:

(1) It is demonstrated that the proposed encroachment would not result in any increase in the flood levels during the occurrence of the base flood discharge, based on hydrologic and hydraulic analyses performed in accordance with standard engineering practice and presented to the Floodplain Administrator prior to issuance of floodplain development permit; or

(2) A Conditional Letter of Map Revision (CLOMR) has been approved by FEMA. A Letter of Map Revision (LOMR) must also be obtained within six months of completion of the proposed encroachment.

(B) If § 151.35(A) is satisfied, all development shall comply with all applicable flood hazard reduction provisions of this chapter.

(C) No manufactured homes shall be permitted. Existing manufactured homes shall be permitted to remain unless the manufactured home sustains substantial damage in which case the manufactured home shall not be repaired or replaced. An existing manufactured home shall not be replaced under any circumstances.

(Ord. 2018-24, passed 5-21-18)

§ 151.36 STANDARDS FOR AREAS OF SHALLOW FLOODING (AO ZONES).

(A) Located within the Special Flood Hazard Areas established in § 151.07, are areas designated as shallow flooding areas. These areas have special flood hazards associated with base flood depths of one to three feet where a clearly defined channel does not exist and where the path of flooding is unpredictable and indeterminate. In addition to §§ 151.30 and 151.31, all new construction and substantial improvements of all structures shall have the reference level elevated to:

- (1) At least as high as the depth number specified on the Flood Insurance Rate Map (FIRM), in feet, plus a freeboard of two feet, above the highest adjacent grade; or
- (2) At least three feet above the highest adjacent grade plus a freeboard of two feet if no depth number is specified;

(B) All new construction and substantial improvements of all non-residential structures, including attendant utility and sanitary facilities, may, in lieu of elevation, be floodproofed to the same depths as listed above so that any space below that level shall be watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. Certification is required as per §§ 151.21(3) and 151.31(2).

(C) Adequate drainage paths shall be provided around structures on slopes, to guide floodwaters around and away from proposed structures.

(Ord. 2018-24, passed 5-21-18)

§ 151.37 STANDARDS FOR AREAS OF SHALLOW FLOODING (AH ZONES).

Located within the Special Flood Hazard Areas established in § 151.07, are areas designated as shallow flooding areas. These areas subject to inundation by 1% annual chance shallow flooding (usually areas of ponding) where average depths are one to three feet. Base Flood Elevations, derived from detailed hydraulic analyses, are shown in this zone. In addition to §§ 151.30 and 151.31, all new construction and substantial improvements of all structures shall provide adequate drainage paths around structures on slopes, to guide floodwaters around and away from proposed structures.

(Ord. 2018-24, passed 5-21-18)

LEGAL STATUS PROVISIONS

§ 151.40 EFFECT ON RIGHTS AND LIABILITIES UNDER THE EXISTING FLOOD DAMAGE PREVENTION CHAPTER.

(A) This chapter in part comes forward by re-enactment of some of the provisions of the Flood Damage Prevention Ordinance enacted May 17, 1982, as amended, and it is not the intention to repeal but rather to re-enact and continue to enforce without interruption of such existing provisions, so that all rights and liabilities that have accrued thereunder are reserved and may be enforced. The enactment of this chapter shall not affect any action, suit, or proceeding instituted or pending. All provisions of the Flood Damage Prevention Ordinance of the City of Goldsboro enacted on May 17, 1982, as amended, which are not reenacted herein are repealed.

(B) The date of the initial Flood Damage Prevention Ordinance for Wayne County is September 1, 1991.
(Ord. 2018-24, passed 5-21-18)

§ 151.41 EFFECT UPON OUTSTANDING FLOODPLAIN DEVELOPMENT AND BUILDING PERMITS.

Nothing herein contained shall require any change in the plans, construction, size, or designated use of any development or any part thereof for which a floodplain development permit or building permit has been granted by the Floodplain Administrator or Chief Building Inspector or his or her authorized agents before the time of passage of this chapter; provided, however, that when construction is not begun under such outstanding permit within a period of six months subsequent to the date of issuance of the outstanding permit, construction or use shall be in conformity with the provisions of this chapter.

(Ord. 2018-24, passed 5-21-18)

§ 151.42 EFFECTIVE DATE.

This chapter shall become effective June 20, 2018.
(Ord. 2018-24, passed 5-21-18)

APPENDIX C

Article V. of the Unified Development Ordinance

6.6 ILLEGAL DISCHARGE CONTROL

6.6.1 STATUTORY AUTHORIZATION

The Legislature of the State has, in Chapter T15A, Article 02B, §.0235, entitled *Neuse River Basin - Nutrient Sensitive Waters Management Strategy: Basinwide Stormwater Requirement* [hereafter referred to as the Neuse Stormwater Rule], designated specific local governments, including the City of Goldsboro, for stormwater management requirements as part of the Neuse River Nutrient Waters stormwater management strategy.

6.6.2 DEFINITIONS

For purposes of this chapter, the following abbreviations and definitions are utilized.

1. DENR. North Carolina Department of Environment and Natural Resources.
2. Illicit Connection. Any connection which allows the unlawful discharge of non-stormwater to stormwater conveyance system or waters of the state in violation of this chapter.
3. 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.
4. Municipal Separate Storm Sewer system (MS4). A stormwater conveyance or unified stormwater conveyance system (including without limitation: roads with drainage systems, municipal streets, catch basins, stormwater detention facilities, curbs, gutters, ditches, natural and man-made channels, or storm drains), that:
 - a. Is located within the jurisdictional limits of the city; and
 - b. Is owned or operated by the state, county, the city or other public body; and
- c. Discharges to waters of the state, excluding publicly owned treatment works, and lawful connections thereto, which in turn discharge into the waters of the state.
5. National Pollutant Discharge Elimination System. A permitting system established pursuant to §402 of the Clean Water Act et seq. Federal Law Reference: National Pollutant Discharge Elimination System Permits, 33 USC§1342
6. 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; nonhazardous 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; floatable; 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.

7. Pollution. Man-made or man-induced alteration of the chemical, physical, biological, thermal and/or radiological integrity of water.
8. Stormwater. Any flow resulting from, and occurring during or following, any form of natural precipitation.
9. 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 manmade 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.

6.6.2 FINDINGS OF FACT

1. Water quality has been an issue in the Neuse River Basin for over a century. Despite a number of initiatives between 1950 and 1995, the Neuse River Basin has continued to have water quality problems. Although environmental conditions in the Neuse River are driven by complex interactions between rainfall, flows, temperatures, biological factors, and chemistry, the long history of problems with nutrient pollution and algal blooms provides evidence that immediate control measures are necessary.
2. In August 1998, the final comprehensive Neuse River Nutrient Sensitive Waters Strategy was adopted. The goal of the strategy is to achieve a 30 percent nitrogen reduction from each controllable and quantifiable source of nitrogen in the basin. The City was one of the 15 largest and fastest-growing local governments in the Neuse River basin which was required to comply with the Neuse Stormwater Rule. This rule contains four program elements, one of which pertains to illegal discharges.
3. Illegal discharges are substances deposited in storm sewers (which lead directly to streams) that really should be handled as wastewater discharges. Depending on the source, illegal discharges may contain nitrogen. Local governments that must comply with the Neuse Stormwater Rule, including the City, must identify and remove illegal discharges.

6.6.3 STATEMENT OF PURPOSE

1. The purpose of this Chapter is to:
 - Protect the public health, safety and welfare by controlling the discharge of pollutants into the stormwater conveyance system;
 - Promote activities directed toward the maintenance and improvement of surface and ground water quality ;
 - Satisfy the requirements imposed upon the City under its National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) discharge permit issued by the State; and
 - Establish administration and enforcement procedures through which these purposes can be fulfilled.

The provisions of this Chapter are supplemental to regulations administered by federal and state governments.

6.6.4 OBJECTIVES

The objectives of this Chapter are to:

1. Regulate the discharge of substances which may contaminate or cause pollution of stormwater, stormwater conveyances, or waters of the State;
2. Regulate connections to the stormwater conveyance system;
3. Provide for the proper handling of spills; and
4. Provide for the enforcement of same.

6.6.5 APPLICATION OF PROVISIONS

This Chapter shall apply within the territorial jurisdiction of the City, with the following exclusions:

1. Federal, State, and local governments, including their agencies, unless intergovernmental agreements have been established giving the City enforcement authority.

6.6.6 BASIS FOR ESTABLISHING THIS LEGAL AUTHORITY

The *Neuse River Basin: Model Stormwater Program for Nitrogen Control*, dated August 30, 1999, requires that local governments 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; and
5. Require compliance and undertake enforcement measures in cases of non-compliance.

6.6.7 ABROGATION AND GREATER RESTRICTION

This Chapter is not intended to repeal, abrogate or impair any existing easements, covenants or deed restrictions. However, where this Chapter and another conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

6.6.8 INTERPRETATION

In the interpretation and application of this Chapter all provisions shall be considered as minimum requirements; liberally construed in favor of the governing body; and, deemed neither to limit nor repeal any other powers granted under State statutes.

6.6.9 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 crawl space pumps;
10. Irrigation water;
11. Street wash water;
12. Flows from firefighting;
13. Discharges from the pumping or draining of natural watercourses or waterbodies;
14. Flushing and cleaning the exteriors of buildings, including gutters, provided that the discharge does not pose an environmental or health threat; and
15. Other non-stormwater discharges for which a valid NPDES discharge permit has been approved and issued by DENR and provided that any such discharges to the municipal separate storm sewer system shall be authorized by the City.

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

6.6.10 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 §6.6.9, are unlawful. Prohibited connections include, but are not limited to: floor drains, wastewater discharge from washing machines or sanitary sewers, wash water discharge from commercial vehicle washing or steam cleaning, and waste water discharge from septic systems.
2. Where such connections exist in violation of §6.6.9, 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 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 the connection:
 - May result in the discharge of hazardous materials or may pose an immediate threat to the health and safety, or is likely to result in immediate injury and harm to real or personal property, natural resources, wildlife, or habitat; or
 - Was made in violation of any applicable regulation or ordinance, The City Manager or his designee shall designate the time within which the connection shall be removed. In setting the time limit for compliance, the City 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.
4. In regard to removing illicit connections, the responsible party must consider that permits are required by the Inspections Department for connections to or modification of storm sewers located in City owned rights-of-way. The costs of such permits will be borne by the responsible party.

6.6.11 SPILLS

1. 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.
2. Persons associated with the spill or leak shall immediately notify the City Fire Chief or his designee of all spills or leaks of polluting substances. Notification shall not relieve any person of any expenses related to the cleanup, restoration, loss, damage, or any other liability which may be incurred as a result of the spill or leak, nor shall such notification relieve any person from other liability which may be imposed by State or other law.

6.6.12 INSPECTIONS

1. The Building Inspector (or other authorized agent of the City) has full power and authority to enter upon a premise for the purpose of investigating an illegal discharge. Should the owner or occupant of any property refuse to permit such reasonable access, the Chief Building Inspector or his designee may obtain an administrative search warrant pursuant to G.S. §15-27.2 or its successor.
2. No person shall obstruct, hamper or interfere with any such representative while carrying out his official duties.

6.6.13 CIVIL PENALTIES

1. *Illicit discharges.* Any person who allows or assists in a violation of this Chapter shall be subject to civil penalties as follows:
 - For first time offenders, if the discharge consists of domestic or household products in quantities considered ordinary for household purposes, the person shall be assessed a civil penalty not to exceed \$ 100 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 the person cannot provide clear and convincing evidence of the volume and nature of the substance discharged, the person shall be assessed a civil penalty not to exceed \$1,000 per violation or per day for any continuing violation.
 - For repeat offenders, the amount of the penalty shall be double the amount assessed for the previous penalty, not to exceed \$10,000 per violation or per day for any continuing violation.
2. *Illicit Connections.* Any person found with an illicit connection in violation of this Chapter and any other person who assists in the establishment of an illicit connection in violation of this Chapter, shall be subject to civil penalties as follows:

- First time offenders shall be subject to a civil penalty not to exceed \$500 per day of continuing violation.
- Repeat violators shall be subject to a civil penalty not to exceed \$1,000 per day of continuing violation.

3. *Other violations.* Any person found in violation of other provisions of this Chapter, not specifically enumerated elsewhere, shall be subject to a civil penalty not to exceed \$ 100 per violation or per day for any continuing violation.

4. *Payment/collection procedures.* Penalties shall be assessed by the City Manager 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 City Manager 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 30 days after demand for payment is made, the matter shall be referred to the City Attorney for institution of a civil action in the name of the City, in the appropriate division of the general court of justice in the county for recovering the penalty.

6.6.14 INJUNCTIVE RELIEF

1. The City may petition the General Court of Justice in the county seeking injunctive relief, or other relief as deemed appropriate, to require compliance with this Chapter. Cost of such action shall be assessed against the individual who is failing to comply with this Chapter.
2. The institution of an action for injunctive relief under §6.6.14 shall not relieve any party to such proceeding from any further civil or criminal penalty prescribed for violations of this Ordinance.

6.6.15 CRIMINAL PENALTIES

Any person who knowingly or willfully violates any provision of this Chapter, rule, regulation, order duly adopted or issued pursuant to this Chapter shall be guilty of a misdemeanor, punishable by a fine not to exceed \$500. Each violation shall be a separate offense.

APPENDIX D

Example Letter to Likely Sources of Illegal Discharges

Re: The City of Goldsboro's "Illegal Discharge Control Ordinance"

Dear Business Owner or Operator,

The City of Goldsboro has adopted an "Illegal Discharge Control Ordinance" on March 1, 2001 to satisfy requirements of the State and protect the water quality of local streams and the Neuse River. This ordinance prohibits illicit connections and/or discharges to the City's storm drain system (streets, catch basins, curbs, gutters, ditches, man-made and natural channels, pipes, culverts, etc.). You are receiving this letter because you are involved in a business that is a possible source of illicit discharges.

Illicit discharges include any discharge other than stormwater to the storm drain system, except for the activities listed below (provided 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 crawl space pumps;
- (10) Irrigation water;
- (11) Street wash water;
- (12) Flows from firefighting;
- (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 and provided that any such discharges to the municipal separate storm sewer system shall be authorized by the City.

An illicit connection is any connection which allows the unlawful discharge of non-stormwater to the storm drain system or waters of the State. Substances prohibited from introduction into the storm drain system include, but are not limited to oil, anti-freeze, chemicals, animal and human waste, paints, garbage, litter, and other pollutants. Illicit connections are prohibited, and must be corrected by cutting off and sealing the connection, reconnecting to the sanitary sewer (may require a permit) or other treatment facility with a permit, or applying for and receiving a discharge permit under the NPDES. Further information can be obtained by calling the City's Engineering Department (580-4342).

Thank you for your assistance,

APPENDIX E

Dry Weather Flow Screening Program

1. Dry Weather Definition

Dry weather is no rainfall greater than .1 (one tenth) inch in the past 72 hours.

2. Screening Method

The City has identified and located approximately 168 outfalls to the various streams that run through and around the city. The City will conduct routine dry weather flow screening of these outfalls in accordance with this appendix, which acts as a supplement to Section 3.3 Mapping and Field Screening in High Priority Areas.

Once an outfall has been selected for screening in accordance with Section 5 below, the City will inspect the outfall twice over a two day period during dry weather. In commercial or industrial areas, screening should take place between the hours of 9:00 am and 5:00 pm during the work week. In residential areas, field screening should be scheduled either before 9:00 am or after 5:00 pm when citizens are most likely to be home and illegal discharges are more likely to be evident. The City Inspector will complete the Outfall Reconnaissance Inventory Field Sheet for each outfall being screened. The City Inspector will make a determination based on the screening as to the potential for an illicit discharge based on the criteria below.

If an outfall has the potential for an illicit discharge, the inspector will conduct an additional two day dry weather screening. After this additional two day screening, the City Inspector make a determination if an illicit discharge is suspected or unlikely.

If the Inspector determines that the outfall has a suspected illicit discharge, he will then attempt to track the suspected illicit discharge to its source (see Section 3.3 Mapping and Field Screening in High Priority Areas). This can include sampling the Stormwater for certain constituents over time, opening up and following the pipe or open conveyance upstream, and other methods.

If the Inspector has reason to believe that a particular activity or location is the source of an illicit discharge, he will take action as detailed in the Illegal Discharge Control Ordinance (Section 6.6 of the Unified Development Ordinance).

The Inspector will document all activities under this appendix and cause to have the data entered into the City's GIS.

3. Criteria for Determining a Suspected Illicit Discharge

Any non-stormwater discharge not expressly allowed in permit is an illicit discharge. A potential illicit discharge is indicated by a flowing outfall during dry weather. The basic criteria for the determination are when two or more observations of flow, odor, color, turbidity, or floatable coincide with one or more observations at least moderately severe (mildly, moderately, or strongly). A suspected illicit discharge must be confirmed by identifying the source

4. Method for Tracking Outfall Information

The City Inspector will complete the Outfall Reconnaissance Inventory Field Sheet for each outfall being screened. This information can be recorded on the paper copy or the electronic copy of the Field Sheet. Selected information from the Field Sheet will be then be placed into an excel spreadsheet and provided to the City's GIS Management Team for placement into the City's GIS.

5. Measurable Goals for Dry Weather Screening

The City will conduct dry weather screening on four (4) outfalls a quarter; three (3) outfalls should be located in priority areas BDW (Big Ditch Watershed) or SCW (Stoney Creek West).

6. Equipment, Communications, and Safety

Basic equipment for the City Inspector will include a measuring tape or stick, water proof boots, reflective vest, clip board or notebook, Field Sheets, and writing instrument. The City Inspector may also have a hand held GPS system to confirm the location of the outfall.

The City Inspector will have a means of communication to City departments such as a two-way radio, cell phone, or wireless tablet.

The following safety measures will be implemented.

- No confined space entry will be conducted by City Inspectors during dry weather field screening.
- Any remote location screening will be conducted by two persons; the Director of Engineering will make this determination prior to assigning locations for screening.
- The City Inspector will use the appropriate preventive measures during hot weather to avoid heat injury or bug bites (hat, sun screen, bug repellent, carry water).
- The City Inspector will use the appropriate preventive measures during cold weather to prevent cold weather injury (warm dress, layered, attention to falling temperatures). Inspection of outfalls should not be attempted during periods of freezing weather.

Outfall Reconnaissance Inventory Field Sheet

Section 1: Background Data

Sub-watershed:		Outfall ID:	
Today's date:		Time (Military):	
Investigator:		Feature:	
Temperature (°F):	Rainfall (in.) in Last 72 hours:		
Latitude:	Longitude:	Nearest Intersection:	
Stain if Present:		Debris if present:	
Sketch:			
Notes (e.g., damaged, vegetation, blockage,):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED	
☐ Closed Pipe	☐ RCP ☐ CMP	☐ Circular ☐ Elliptical ☐ Box ☐ Other: _____	☐ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: _____ _____ _____	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
	☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____				
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____		

Section 3: Characterization

FIELD OBSERVATION FOR FLOWING OUTFALLS				
	PARAMETER	FIRST OBSERVATION	SECOND OBSERVATION	COMMENTS
Date	Date			
	Time			
Flow (yes/no)	Flow (yes/no)			
	Standing Water (yes/no)			

	Direction of Flow			
	Flow (trickle, medium, heavy)			
	Odor (faint, noticeable, strong)			
	Color (faint, noticeable, clearly visible)			
	Turbidity (slight, cloudy, opaque)			
	Floatables (few, some, obvious source)			
	Potential for Illicit Discharge (Unlikely, Potential, Suspected, Obvious)			

Notes:

APPENDIX F

CHAPTER 54: STORMWATER MANAGEMENT UTILITY

- 54.01 Authority
- 54.02 Definitions
- 54.03 Stormwater management utility established; administration; powers and duties
- 54.04 Boundaries and jurisdiction
- 54.05 Stormwater utility service fees, rates and fee schedule
- 54.06 Credits
- 54.07 Billing method; responsible parties
- 54.08 Backbilling
- 54.09 Complaints regarding a bill
- 54.10 Appeal
- 54.11 Use of revenue; investment of funds; borrowing

§ 54.01 AUTHORITY.

Pursuant to G.S. Ch.160A, Art. 16, the city hereby creates a stormwater utility and establishes a schedule of stormwater utility service fees to fund a stormwater management program, and a structural and natural stormwater and drainage system. (Ord. 2017-29, passed 6-5-17)

§ 54.02 DEFINITIONS.

For the purpose of this chapter, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

BEST MANAGEMENT PRACTICE (BMP). Measures or practices used to reduce the amount of pollution entering surface waters. BMPs can be structural or non-structural and may take the form of a process, activity, physical structure or planning. Structural BMPs refer to physical structures that reduce the amount of pollution entering surface waters. Structural BMPs include structures such as detention/retention ponds, swales, rain gardens, infiltration basins, and rain barrels.

DEVELOPED PROPERTY. Real property that has been altered from its natural state by the addition and attachment of any improvements such as buildings, structures or other impervious area. For new construction, property shall be considered **DEVELOPED PROPERTY** upon final approval of site improvements by the city.

EQUIVALENT RESIDENTIAL UNIT (ERU). The total impervious area of a typical single-family residential property, which is determined as the median impervious area of

a representative sample, as determined by the city, of all developed residential properties in the single-family residential category.

IMPERVIOUS SURFACE AREA. A surface that, because of its composition or compacted nature, impedes or prevents natural infiltration of water into the soil, including but not limited to, roofs, decks, driveways, patios, sidewalks, parking areas, tennis courts, streets, or compacted gravel surfaces.

NON-SINGLE FAMILY RESIDENTIAL PROPERTY. Developed property not defined as a single family residential property.

PROPERTY OWNER OF RECORD. The person identified as the owner by county tax records.

REVENUES. All fees, assessments or other income received by the stormwater utility, including but not limited to, amounts received from the investment or deposit of monies in any fund or account, and all amounts received as gifts or donations, and the proceeds from the sale of bonds to finance the stormwater management program, or any other type of funds derived from grants, fees or loans that by purpose or effect relate to stormwater management activities.

SINGLE-FAMILY RESIDENTIAL PROPERTY. Developed property that serves the primary purpose of providing a permanent dwelling unit, regardless of the zoning district in which it is located, for single-family detached units, and that may or may not have accessory uses related to the purpose of providing permanent dwelling facilities.

STORMWATER UTILITY SERVICE FEE. The monthly monetary amount charged each parcel of real property for the services provided by the stormwater utility system and program as set forth in the city schedule of rates and fees, a copy of which is located in the office of the City Clerk and is incorporated by reference herein.
(Ord. 2017-29, passed 6-5-17; Am. Ord. 2018-3, passed 1-22-18)

§ 54.03 STORMWATER MANAGEMENT UTILITY ESTABLISHED; ADMINISTRATION; POWERS AND DUTIES.

(A) The City Council hereby establishes a stormwater management utility to carry out the purposes, functions and responsibilities set forth in this section. The governing body of the stormwater management utility shall be the City Council. The City Manager shall administer the stormwater management utility through the Public Works Department or such other departments and divisions as the City Manager shall designate.

(B) The stormwater management utility shall have the following powers and duties, subject to available revenues, which powers and duties are not necessarily exclusive to the stormwater management utility.

(1) Stormwater management planning and preparation of comprehensive watershed master plans for stormwater management.

(2) Regular inspections and maintenance of public stormwater management facilities, and measures for the construction thereof, as well as regular inspections of private stormwater management facilities.

(3) Maintenance and improvement of stormwater management facilities that have been accepted by the city for purposes of stormwater management.

(4) Plan review and inspection of sediment control and stormwater management plans, measures and practices.

(5) Retrofitting designated watersheds to reduce existing flooding problems or to improve water quality.

(6) Acquisition of interests in land, including easements, upon prior approval by City Council,

(7) Design and construction of stormwater management facilities and measures, and acquisition of equipment.

(8) Water quantity and water quality management, including monitoring activities.

(9) Compliance with state and federal regulations for stormwater management, and submission of mandatory and non-mandatory reports related thereto, except for those regulations that require approval by City Council.

(10) Any and all powers and duties delegated or granted to it as a local government implementing agency under the laws and regulations of the state and the ordinances of the city. (Ord. 2017-29, passed 6-5-17)

§ 54.04 BOUNDARIES AND JURISDICTION.

The boundaries and jurisdiction of the stormwater management utility shall extend to the corporate limits of the city, as they may exist from time to time, and such areas lying outside the corporate limits of the city as shall be approved by the City Council.

(Ord. 2017-29, passed 6-5-17)

§ 54.05 STORMWATER UTILITY SERVICE FEES, RATES AND FEE SCHEDULE.

(A) Stormwater utility service fees will be determined and modified from time to time by the City Council, so that the total revenues generated by these fees will be used to pay such expenses as are reasonably necessary or convenient in the management, administration, planning, regulatory compliance, public education, construction, operation, and maintenance of the stormwater system, and to pay principal of and interest on the debt incurred for stormwater purposes.

(B) The fee system must be reasonable and equitable so that users pay to the extent they contribute to the need for the stormwater management utility, and so that fees bear

a substantial relationship to the cost of service. The City Council recognizes that these benefits, while substantial, in many cases cannot be measured directly.

(1) Stormwater utility service fees shall accrue on the date determined by City Council and set forth in the city schedule of rates and fees. Stormwater utility service fees shall apply to all land as presented in § 54.04, whether public or private. Exemptions shall not be allowed based on age, tax exemption, or other status of an individual or organization, except as set forth in § 54.06.

(2) Stormwater utility service fees shall be based on a commonly accepted rate unit for stormwater utilities, the equivalent residential unit (ERU). The ERU is used to relate a base rate fee charged to a single-family residential property to that charged to a non-single-family residential property. The city's ERU is 3,000 square feet of impervious surface area. The ERU is determined by analyzing digital photographs and, for verification purposes, performing field checks of a representative sample of single-family residences within the city limits.

(a) All single-family residential properties will be charged one ERU per month.

(b) All non-single-family residential properties will be charged based on the number of ERUs on the property.

Stormwater Utility Fee Rates

<i>Number of ERUs</i>	<i>Monthly Rate per ERU</i>
First 60	\$4.50
61st to 100 th	\$3
101st to 150 th	\$2
Above 150 th	\$1

(Ord. 2017-29, passed 6-5-17; Am. Ord. 2018-3, passed 1-22-18)

§ 54.06 CREDITS.

(A) Stormwater utility fee credits will be made available to developed non-single family residential properties with structural SCMs that treat at least 100% of runoff from the parcel. Credit for either a 10% or up to a total of 20% reduction in the stormwater utility fee will be given, as long as the property meets the eligibility requirements and the SCM meets the appropriate treatment requirements and is being properly maintained. The credit percentage is applied after the complete stormwater bill is calculated.

(B) Credit eligibility, application, approval, and expiration criteria and procedures are documented in the stormwater utility fee policies.

(Am. Ord. 2018-3, passed 1-22-18)

§ 54.07 BILLING METHOD; RESPONSIBLE PARTIES.

(A) Bills for stormwater utility service fees shall be sent at regular, periodic intervals. Stormwater utility service fees may be billed on a combined utility bill that also contains fees for other utilities. Stormwater utility service fees that are shown on a combined utility bill may be for a different service period than that used for other utilities. For properties not having otherwise active utility accounts, the fee for only stormwater utility service accounts shall be billed to the owners or other persons listed on the real property tax records. These accounts may be billed at different intervals than the accounts receiving combined utility billings.

(B) As the general rule, stormwater utility bills for a property that receives other city-provided utilities shall be sent to the customer receiving such service. Billing for parcels or groups of adjacent and associated parcels with multiple utility accounts may be done as a separate bill to each account with the impervious area allocated among the accounts. Where this allocation results in an amount of impervious area allocable to a given account that is similar to that for a single family residential property, the account will be billed the same way as a single family residential property.

(C) Townhouse and condominium developments and other similar properties billed through individual utility accounts and not the property owner, but containing impervious surface greater than one ERU in common ownership areas, shall be charged a stormwater utility service fee for the total impervious surface of all commonly-owned property within the development. The stormwater utility bill for the commonly-owned areas shall be sent to the homeowners' association.

(D) Stormwater utility service fees shall be due and payable as set forth in the city schedule of rates and fees, a copy of which is located in the office of the City Clerk, and is incorporated by reference herein.

(Ord. 2017-29, passed 6-5-17; Am. Ord. 2018-3, passed 1-22-18)

§ 54.08 BACKBILLING.

Failure to receive a stormwater utility service fee bill is not justification for nonpayment. The owner of each parcel of land shall be ultimately obligated to pay such fee. If a customer is underbilled or if no bill is sent, the city may backbill for up to two years.

(Ord. 2017-29, passed 6-5-17)

§ 54.09 COMPLAINTS REGARDING A BILL.

(A) A customer having a grievance or complaint that a bill is excessive must file written notice with the city's finance office. If it is determined that the bill is in error, an adjustment will be made according to the schedule of rates and fees.

(B) No adjustment will be made for more than a three-year period.

(Ord. 2017-29, passed 6-5-17)

§ 54.10 APPEAL.

(A) For the purposes of the stormwater utility fee, any person who disagrees with any final determination of the Public Works Director in the administration of the fee with regards to classification of parcels, stormwater fees, application of credits, final administrative policies, or procedures, and other matters related to the administration of the stormwater utility have 30 days from the date of notification of such determination to apply for a hearing.

(B) All appeals of administrative determinations are to be heard by the City Manager.

(C) Appeals to the City Manager's determination constitute a quasi-judicial process and will be heard by the Board of Adjustment.

(Am. Ord. 2018-3, passed 1-22-18)

§ 54.11 USE OF REVENUE; INVESTMENT OF FUNDS; BORROWING.

Funds generated for the stormwater management utility from fees, bond issues, other borrowing and other sources shall be utilized only for those purposes for which the stormwater management utility has been established. Such funds shall be invested and reinvested pursuant to the same procedures and practices established by the city for investment and reinvestment of funds. The City Council may use any form of borrowing authorized by law to fund capital acquisitions or expenditures for the stormwater management utility.

(Ord. 2017-29, passed 6-5-1)