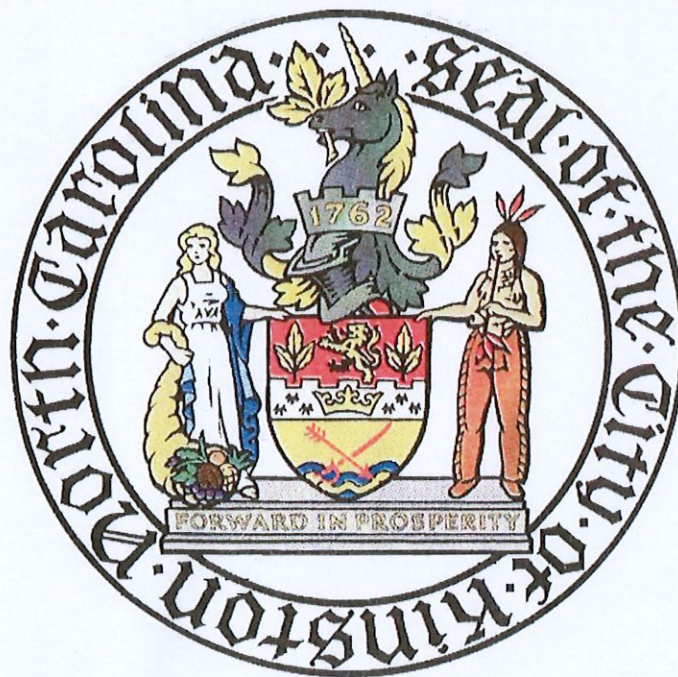


Local Program to Implement Neuse Stormwater Rules

**City of Kinston
Kinston, North Carolina**

May 2023



Revision of Stormwater Program for Nitrogen Control (February 2008)

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PART 1: INTRODUCTION

The purpose of this Neuse Local Program is to establish and define the means by which the City of Kinston will comply with the requirements of the Neuse nutrient stormwater rule (henceforth, "Rule") (15A NCAC 02B .0711).

This Local Program identifies the specific elements and minimum measures that the City of Kinston will develop, implement, enforce, evaluate and report to the North Carolina Department of Environmental Quality (NCDEQ) Division of Water Resources (DWR) to comply with the requirements of the Rule. This Local Program covers activities associated with the discharge of nutrients in stormwater from the City of Kinston.

The Local Program will be evaluated annually, and updated as needed, to ensure that the elements and minimum measures it contains continue to adequately provide for Rule compliance.

Once the Local Program is approved by NCDEQ and the Environmental Management Commission, all provisions contained and referenced in it, along with any approved modifications, become enforceable.


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 Local Program, and that NCDEQ has enforcement authority.

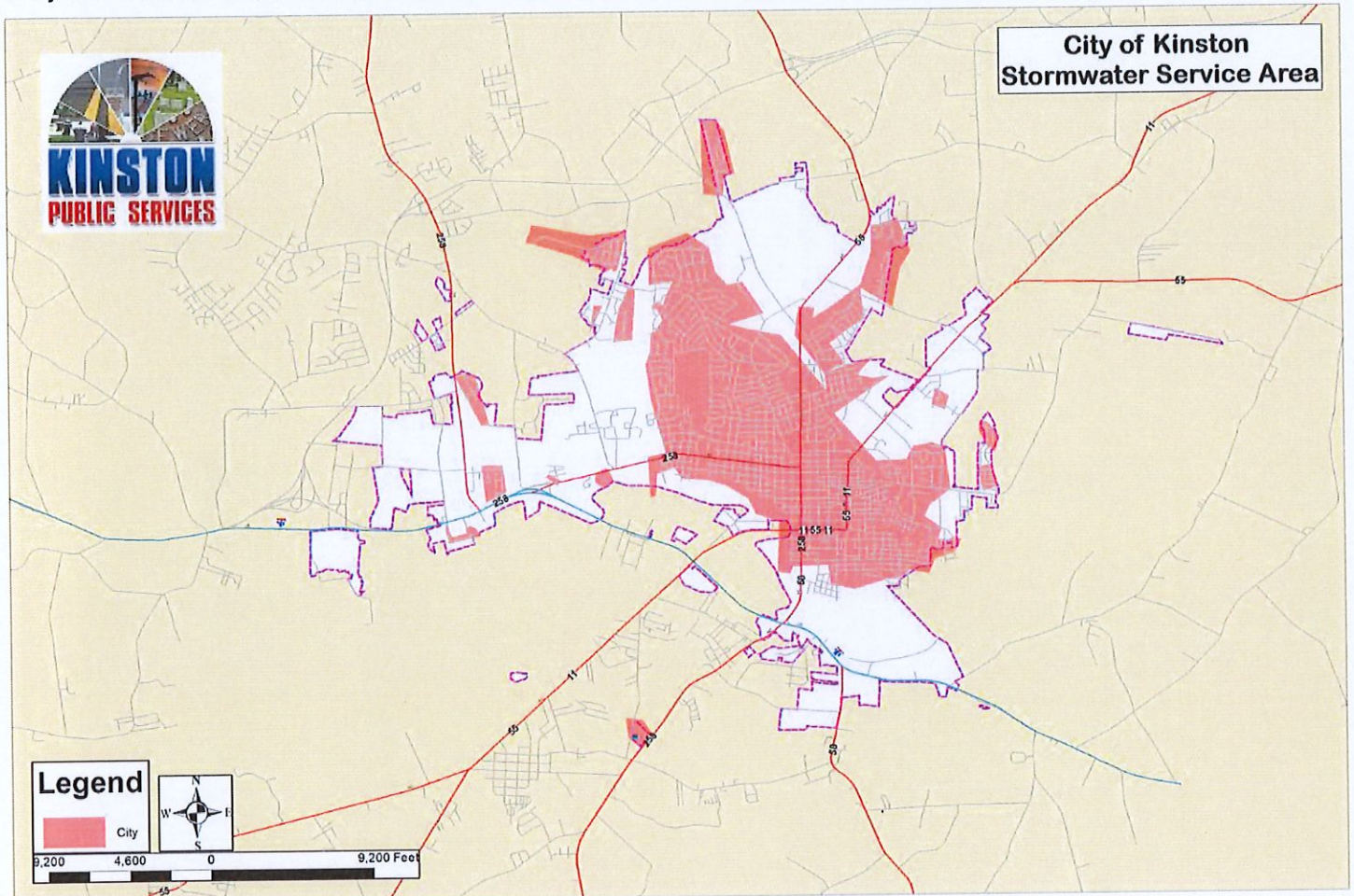
- ☐ I am a ranking elected official for the City of Kinston.
- ☒ I am a principal executive officer for the City of Kinston.
- ☐ I am a duly authorized representative for the City of Kinston and have attached the authorization made in writing by a principal executive officer or ranking elected official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

Signature:	
Print Name:	Rhonda Barwick
Title:	City Manager
Signed this <u>28th</u> day of <u>April</u> 2023.	

PART 3: LOCAL GOVERNMENT INFORMATION

Local Program Area

This Local Program applies throughout the limits of the City of Kinston, including all regulated activities associated with the discharge of stormwater from the jurisdiction. The map below shows the area regulated by the jurisdiction for implementation of the Neuse Nutrient Management Strategy as of the date of this document.



Interconnection with Other Local Jurisdictions

The City of Kinston does not have an interconnected stormwater system with another entity regulated under the Neuse Nutrient Management Strategy, and directly discharges to the receiving waters as listed in Table 2 below.

Receiving Waters

The City of Kinston is located within the Neuse watershed 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 Receiving Waters

Receiving Water Name	Stream Index / AU Number		Water Quality Classification	303(d) Listed Parameter(s) of Interest
Neuse River	27-(75.7)		C;NSW	
Adkin Branch	27-79		C; Sw, NSW	
Briery Run	27-81-1		C; Sw, NSW	
Jericho Run	27-81-2		C; Sw, NSW	

PART 4: STORMWATER MANAGEMENT PROGRAM ADMINISTRATION

Organizational Structure

The City of Kinston's Engineering Department will be responsible for the review and implementation of all new and existing stormwater program rules and shall create all required reports. Public Education and Outreach activities will be conducted by the City's Information Resource Specialist, a summary of these activities will be submitted to the Engineering Department to be included in future reports.

Table 3: Summary of Responsible Parties

Local Program Component	Responsible Position	Department
Stormwater Program Administration	Director of Public Services	Public Service
Post-Construction Stormwater Management	Civil Engineer	Public Service
Illicit Discharge Detection & Elimination	Civil Engineer	Public Service
Public Education & Outreach	Information Resource Specialist	Public Service

Program Funding and Budget

The City of Kinston shall maintain adequate funding and staffing to implement and manage the provisions of the Local Program and comply with the requirements of the Neuse Stormwater Rule.

Stormwater utility service fee revenues, grants, and loans are used to fund expenses related to 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.

The City of Kinston utilizes stormwater fees, investment funds, and other miscellaneous methods to generate expected revenue of \$1,050,400.00. The funds are applied to staffing 10 full time employees and outfitting them with the tools necessary to construct, maintain, repair, and improve public infrastructure related to stormwater.

Measurable Tasks for Program Administration

The City of Kinston will manage and report on the following Best Management Practices (BMPs) for administration of the Local Program, as described in Table 4. The annual assessment and reporting period runs from July 1 to June 30 of every year, and is part of the annual reporting required to be submitted to comply with requirements of the Nutrient Management Strategy. This annual assessment is to be submitted to the Division of Water Resources by October 30 of each year.

Table 4: Program Administration BMPs

Program Administration BMPs				
	Annual Self-Assessment Measures to evaluate the performance and effectiveness of the Local Program components at least annually. Results will be used to modify the program components as necessary to accomplish the intent of the Neuse Stormwater Rule. The self-assessment reporting period is the fiscal year (July 1 – June 30).			
BMP No.	A	B	C	D
	Description of BMP	Measurable Task(s)	Schedule for Implementation	Annual Reporting Metric
1.	Annual Self-Assessment and Report			
	Perform an annual evaluation of Local Program implementation, suitability of Local Program commitments and any proposed changes to the Local Program utilizing the	1. Record annual reporting metrics in the Annual Self-Assessment Template customized to this Local Program, provide formal certification by a local official, and submit to NCDEQ as part of annual reporting.	1. Annually	1. Annual reporting metrics received by NCDEQ - DWR no later than October 30 of each year.

	NCDEQ Annual Self-Assessment Template.	2. Review results of self-assessment for suitability and achievability of Local Program commitments. Propose Local Program changes to NCDEQ as part of annual reporting.	2. Annually	2. Assessment of Local Program commitments suitability, and proposed changes to the Local Program, are included in the Annual Self-Assessment submitted no later than October 30 of each year.
	Local Program Updates Process to be used to update the Local Program and/or Local Ordinances.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Task(s)	Schedule for Implementation	Annual Reporting Metric
2.	Local Program Updates			
	Audit stormwater program implementation for compliance with Neuse Rules and approved Local Program and utilize the results to prepare and submit a permit renewal application package.	1. Self-audit and document any stormwater program components not audited by EPA or NCDEQ utilizing the DEQ Audit Template.	1. May 1, 2023	1. Submit Self-Audit to DEMLR (if MS4) or DWR (if non-MS4) (required component of permit renewal application package).
		2. Participate in a Neuse Nutrient Management Strategy Audit, as scheduled and performed by NCDEQ.	2. May 1, 2023	2. N/A
	Adequate Funding and Staffing Local Program activities to determine and maintain adequate funding and staffing to implement and manage the provisions of the Local Program and meet all requirements of the Neuse Stormwater Rule			
BMP No.	A	B	C	D
	Description of BMP	Measurable Task(s)	Schedule for Implementation	Annual Reporting Metric
3.	Funding and Staffing Evaluation			
	Review of Annual Self-Assessment may identify uncompleted tasks. Determine if more funding or staffing is needed to implement the Local Program.	1. Identify uncompleted tasks from Annual Self-Assessment.	1. Annually.	1. List of uncompleted tasks
		2. Determine whether additional funding or staff time are needed to achieve task, if Local Program change is needed, or if there were unusual circumstances.	2. Annually.	2. Report corrective actions needed
		3. Set up steps to implement program changes.	3. Annually.	3. Date changes implemented.

Part 5: POST-CONSTRUCTION SITE RUNOFF AND NUTRIENT LOADING MANAGEMENT PROGRAM

This part of the Local Program 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.

Applicable State Post-Construction Programs

The City of Kinston implements the State post-construction programs for which reference information is added in [Table 5](#).

Table 5: List of State Programs for Post-Construction Site Runoff Control

State Stormwater Program Name	State Requirements	Local Ordinance / Regulatory Mechanism Reference
Neuse River Basin Nutrient Management in Stormwater Strategy	15A NCAC 02B .0711	Part II, Chap. 19, Art. V, Div. 1, Sec. 19-151

Existing Post-Construction Ordinances, Procedures, and Guides

The City of Kinston 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 [Table 6](#) below.

Table 6: Summary of Existing Post-Construction Ordinances, Procedures, and References

Plan Review and Approval	Municipal Ordinance/Code Reference(s) and/or Document Title(s)	Date Adopted
Authority	Part I, Art. I, Sect. 1.2	May 8, 1987
Federal, State & Local Projects	Part II, Chap. 19, Art. V, Div. 2, Sec. 19-154	March 5, 2001
Plan Review	Part II, Chap. 19, Art. V, Div. 2, Sec. 19-154	March 5, 2001
O&M Agreement	Part II, Chap. 19, Art. V, Div. 4, Sec. 19-162	March 5, 2001
O&M Plan	Part II, Chap. 19, Art. V, Div. 4, Sec. 19-161	March 5, 2001
Deed Restrictions/Covenants	Part II, Chap. 19, Art. V, Div. 4, Sec. 19-161	March 5, 2001
Access Easements	Part II, Chap. 19, Art. V, Div. 4, Sec. 19-161	March 5, 2001
Nutrient Calculation	Part II, Chap. 19, Art. V, Div. 2, Sec. 19-154	March 5, 2001
Nutrient Offset	Part II, Chap. 19, Art. V, Div. 2, Sec. 19-154	March 5, 2001
Inspections and Enforcement	Municipal Ordinance/Code Reference(s) and/or Document Title(s)	Date Adopted
Documentation	Part II, Chap. 19, Art. V, Div. 4, Sec. 19-161	March 5, 2001
Right of Entry	Part II, Chap. 19, Art. V, Div. 5, Sec. 19-165	March 5, 2001
Pre-CO Inspections		
Compliance with Plans	Part II, Chap. 19, Art. V, Div. 4, Sec. 19-162	March 5, 2001
Annual SCM Inspections	Part II, Chap. 19, Art. V, Div. 4, Sec. 19-163	March 5, 2001
Qualified Professional	Part II, Chap. 19, Art. V, Div. 5, Sec. 19-165	March 5, 2001

Summary Description of Stormwater Program

The Neuse Stormwater Rule (15A NCAC 02B .0711) has the following requirements for new developments located within the jurisdiction of the City of Kinston.

- The nutrient load contributed by new development activities is held at 3.6 pounds per acre per year. This is equivalent to 70% of the estimated average nitrogen load contributed by the non-urban areas in the Neuse River Basin (as defined using 1995 LANDSAT data). The Environmental Management Commission may periodically update the performance standard based on the availability of new scientific information.
- Developers shall provide onsite stormwater treatment for all cumulative BUA (Built Upon Area) if the project density is greater than 24% BUA, and meet other low-density, high-density and other stormwater requirements of DEMLR's 02H .1003. Projects \leq 24% BUA may meet nutrient rate targets entirely by nutrient offsets, but must also meet low density stormwater requirements of 02H .1003. Nutrient needs not achieved following treatment requirements can be covered with nutrient offsets by funding wetland or riparian area restoration through the North Carolina Wetland Restoration Program.

- The City of Kinston must review new development plans to assure compliance with requirements for protecting and maintaining riparian areas as specified in 15A NCAC 02B .0714.

Protecting Riparian Areas on New Development

The Neuse Stormwater Rule requires the City of Kinston to ensure that riparian areas are protected on new developments in accordance with the Riparian Buffer Rule (15A NCAC 2B .0714). The Riparian Buffer Rule requires that 50-foot riparian buffers be maintained on all sides of intermittent and perennial streams, ponds, lakes and estuaries in the Neuse River Basin. The rule includes some uses that are allowable within the riparian buffer, such as road and utility crossings.

The City of Kinston shall disapprove any new development activity that is proposed to take place within the first 50 feet adjacent to a waterbody that is shown on either the USGS topographic map or the NRCS Soil Survey maps unless the owner can show that the activity has been approved by DWQ. DWQ approval may consist of either of the following:

- An Authorization Certificate documenting that DWQ has approved an allowable use such as a road crossing or utility line. A detailed list of allowable uses is included in the Riparian Buffer Rule.
- A letter from DWQ documenting that a variance has been approved for the proposed development activity.

Calculating N Export from New Development

For the purposes of the Neuse Stormwater Program, new development shall be defined as to include the following:

- Any Activity that disturbs greater than one acre of land in order to establish, expand or modify a single family or duplex residential development or a recreational facility.
- Any activity that disturbs land in order to establish, expand or modify a multifamily residential development or a commercial, industrial or institutional facility.

New development shall NOT include agriculture, mining or forestry activities. Land disturbance is defined as grubbing, stump removal and/or grading.

Property owners that can demonstrate that they have vested rights as of the effective date of the City of Kinston Stormwater Program for Nitrogen Control (12/20/2000) will not be subject to the requirements for new development. Vested rights may be based on at least one of the following criteria:

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

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

The nitrogen export from each new development must be calculated. This export will be calculated in pounds per acre per year (lbs/ac/yr). Calculations for new developments will be processed using the revised SNAP (Stormwater Nitrogen and Phosphorous) tool. This tool is available for download using the following link:
<https://files.nc.gov/ncdeq/Water%20Quality/Planning/NPU/SNAP-Version-4.1.zip>

Input requirements for this excel based program will include, but are not limited to, the following:

- Project Area (ft²)
- Disturbed Area (ft²)
- Pre and Post Project Area Coverage (ft²)
 - Roof
 - Roadway
 - Parking/Driveway/Sidewalk
 - Protected Forest (area will need to include some agreement that forested area will not be used for development purposes. In the event that timber is harvested the area must be returned to its forested state)
 - Other Pervious/Landscaping
- Stormwater Control Measure (SCM) data:
 - Type of SCM
 - Predominant hydrologic soil group at SCM location
 - Areas (ft²) draining to SCM

The SNAP tool provides developers with user manuals that assist in completing data entry and report generation.

BUA (Built Upon Area) Thresholds

- SFR/duplex, disturbance < 1ac
 - **Below threshold** for running nutrient calculations and requiring stormwater treatment
- SFR/duplex, disturbance ≥ 1ac
 - If Cumulative BUA > 24%, → nutrient calcs for project area, **high-density stormwater** design for all Cumulative BUA
 - If Cumulative BUA ≤ 24% AND > 5% → nutrient calcs for project area, **low-density** stormwater design for all Cumulative BUA
 - If Cumulative BUA ≤ 5% AND PART OF Common Plan of Development → nutrient calcs for project area, **low-density stormwater** design for all Cumulative BUA
 - If Cumulative BUA ≤ 5% AND NOT PART OF Common Plan of Development → **below threshold** for nutrients and requiring stormwater treatment
- Comm/Ind, disturbance ≥ 0.5ac
 - If Cumulative BUA > 24% → nutrient calcs for project area, **high-density stormwater** design for all Cumulative BUA
 - If Cumulative BUA ≤ 24% → nutrient calcs for project area, **low-density** stormwater design for all Cumulative BUA
- Comm/Ind, disturbance < 0.5ac
 - Greenfield, any amount of New BUA → **below threshold** for nutrients and requiring stormwater treatment
 - Expansion, Cumulative BUA > 24% → nutrient calcs for project area, **high-density stormwater** design for all Cumulative BUA
 - Expansion, Cumulative BUA ≤ 24% → **below threshold** for nutrients and requiring stormwater treatment

Density based design standards are outlined in DEMLR's 02H .1003 (See Appendix A)

Calculating Peak Runoff Volume

The City of Kinston's Stormwater Program requires there be no net increase in peak flow leaving the site from the pre-development conditions for the 2-year, 24-hour storm.

Acceptable methodologies for computing the pre- and post-development conditions for the 2-year, 24-hour storm include:

- The Rational Method
- The Peak Discharge Method as described in USDA Soil Conservation Service's Technical Release Number 55 (TR-55).
- Other methods as approved by the City Engineer

The same method must be used for both the pre- and post-development conditions.

Table 2b: Rainfall depths for the 2-year, 24-hour storm

Location	2yr-24 hr depth (Inches)	2 yr - 24 hr intensity* (in/hr)
Kinston	3.91 inches	0.1 63 (in./h r.)

The flow control requirement is not required for developments that meet one or all of the following requirements:

- The increase in peak flow between pre - and post - development conditions does not exceed ten percent (note that this exemption makes it easier to conduct redevelopment activities)
- The proposed new development meets all of the following criteria: overall impervious surface is less than fifteen percent, and the remaining pervious portions of the site are utilized to the maximum extent practical to convey and control the stormwater runoff.

It is recognized that in certain parts of drainage basins, stormwater detention can aggravate local flooding problems. The City may provide exemptions to those specific locations.

SCM Maintenance

If SCM are implemented to achieve the nitrogen loading and flow attenuation requirements for a development, then a stormwater permit must be acquired for the development from the City and a maintenance plan must be submitted to the City for the SCMs.

The City of Kinston shall notify the owner upon finding that maintenance is needed on a SCM. If the owner does not complete the maintenance themselves in a timely manner, then the City can contract out the maintenance itself and recover costs in the manner it determines most appropriate.

The City of Kinston shall inspect all SCMs on an annual basis. The City of Kinston shall keep a database of SCMs and their locations to assist in the inspection process.

SCM Inspections will cover the following criteria:

- How well is runoff entering the SCM?
- Condition of vegetation at entrance?
- Condition of vegetation in SCM?
- Condition of vegetation at outlet?
- How is the flow out of the SCM?
- Is there erosion at the entrance of the SCM?
- Is sediment present in the SCM?
- Are there other pollutants in the SCM?
- Is there erosion at the outlet of the SCM?
- Is there sediment/pollution downstream of the SCM?

SCMs, when used, shall be part of the development site, not on a separate lot.

Land Use Planning Provisions

Developers are encouraged to use site design techniques to reduce impervious surfaces on their developments. As discussed previously, reducing impervious surfaces reduces the need for SCMs to control nitrogen and peak stormwater flows and also reduces associated SCM maintenance concerns.

The City of Kinston will review local ordinances with regard to the following topics and provide 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.

The City of Kinston will consider the following planning techniques and the general advantages and disadvantages of incorporating these approaches at the local level.

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

Measurable Tasks for Post-Construction Runoff Control BMPs

The City of Kinston will implement the following program measures to satisfy the post-construction runoff control requirements of the nutrient stormwater rule.

Table 7: Post Construction Site Runoff Control BMPs

Post Construction Site Runoff Control BMPs				
	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.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Task(s)	Schedule for Implementation	Annual Reporting Metric
4.	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 (BMP #25) and constructed SCMs including SCM type or location, and last inspection date (BMP #20).	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. (BMP #20)	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.
5.	Data Used in Nutrient Calculations			
	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: <ul style="list-style-type: none"> (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. 			
BMP No.	A	B	C	D
	Description of BMP	Measurable Task(s)	Schedule for Implementation	Annual Reporting Metric
6.	Nutrient Management Strategy Requirements Specified in Ordinance			
	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. First year	1. Completed y/n?
7.	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 y/n?

		2. Contact representatives of all Federal, State, and local government land holdings within the jurisdiction to advise them of this development review requirement.	2. First year	2. Completed y/n?
8.	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. First year	1. Completed y/n?
9.	Legal Authorities for Inspections and Enforcement			
	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. First year	1. Completed y/n?
10.	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).

BMP No.	A	B	C	D
	Description of BMP	Measurable Task(s)	Schedule for Implementation	Annual Reporting Metric
11.	MOAs for Plan Review – Federal, State, Local Government			
	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.
12.	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 or .0731, including reviews of nutrient calculations using a DWR-	1. Establish application intake and review procedures	1. First year	1. Completed y/n?
		2. Conduct site plan reviews	2. Continuously	2. Number of plans approved that year

	approved calculation tool.			
13.	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. First year	1. Completed y/n?
		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
14.	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. First year	1. Completed y/n?
15.	Protective Easements for 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. First year	1. Completed y/n?
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

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?
	Inspections and Enforcement Measures to maintain inspection and enforcement authority, standards and procedures to: <ul style="list-style-type: none"> (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. 			
BMP No.	A	B	C	D
	Description of BMP	Measurable Task(s)	Schedule for Implementation	Annual Reporting Metric
18.	Inspection of Post-Construction SCMs			
	Conduct staff inspection of all post-construction SCMs at least once every five years.	1. Conduct inspection of 20% of SCMs each year	1. Annually	1. Number of SCMs inspected
		2.	2.	2.
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.

19.	Require submission of Annual Post-Construction SCM Inspections			
	Require annual submission of post-construction SCM inspections reports, that inspections are conducted by a qualified professional for compliance with the approved O&M plan, and that SCM owners keep O&M records available for viewing by the Local Program for 5 years.	1. Assign data storage location for reports and staff to log them in	1. First year	1. Completed y/n?
		2. Log reports as they're received	2. Continuously	2. Number of reports received that year
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.
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.	1.	1.
		2.	2.	2.
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.
21.	End-of-construction SCM Inspections			
	Conduct post-construction SCM 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), and ensure that the project has been constructed in accordance with the approved plan(s).	1.	1.	1.
		2.	2.	2.
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.

Documentation Measures to maintain adequate documentation and standardized inspection and tracking mechanisms to: <ul style="list-style-type: none"> (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. 				
BMP No.	A	B	C	D
	Description of BMP	Measurable Task(s)	Schedule for Implementation	Annual Reporting Metric
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?
23.	Inventory of Developments and Lots with BUA Limits			
	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

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 y/n?	
	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	
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 submissions and periodic staff inspections. 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. Due dates are set for submission of annual inspection reports	2. First year	2. Due dates roll through the year or if there is a single date?	
	3. Staff are assigned responsibility for ensuring missed reports have followup	3. Annual report check-in	3. Number of missed annual reports that year	
	4. 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	
26.	Developer Resources - General			
(See full BMP description in Public Education and Outreach Table 12, BMP #53)	1.	1.	1.	
	2.	2.	2.	
	3.	3.	3.	
	4.	4.	4.	
	5.	5.	5.	
27.	Developer Resources – Nutrient Rules			
(See full BMP description in Public Education and Outreach Table 12, BMP #54)	1.	1.	1.	
	2.	2.	2.	

		3.	3.	3.
		4.	4.	4.
		5.	5.	5.
28.	Public Education for BUA Limits and SCM Maintenance			
	(See full BMP description in Public Education and Outreach Table 12, BMP #55)	1.	1.	1.
		2.	2.	2.
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.

PART 6: ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM

Non-Stormwater Discharges

The water quality impacts of non-stormwater discharges have been evaluated by the City of Kinston as summarized in Table 1d: Non-Stormwater Discharges (pg. 29) as to whether they are incidental or possible. The unpermitted non-stormwater flows listed as incidental do not significantly impact water quality. The City of Kinston has evaluated residential and charity car washing and street washing for possible significant water quality impacts.

Street washing discharges are addressed under the Illicit Discharge Detection and Elimination section of this SWMP. The Division has required that other non-stormwater flows be specifically controlled by the City of Kinston.

Stormwater collection systems are vulnerable to receive illegal discharges (even though the person responsible for the discharge may be unaware that it is illegal). Depending on their source, illegal discharges may convey pollutants such as nutrients, phenols, and metals to receiving water. Table 4a identifies some potential flows to the stormwater collection system that may be allowable. Table 4b identifies some discharges that are not allowed.

Table 4a: Discharges that may be allowable to the stormwater collection system

Waterline Flushing	Landscape Irrigation	Diverted Stream Flows
Uncontaminated Rising Ground Water	Uncontaminated Ground Water Infiltration to Stormwater Collection System	Uncontaminated Pumped Ground Water
Discharges from potable water sources	Foundation Drains	Uncontaminated Air Conditioning Condensation
Irrigation Water	Springs	Water from Crawl Space Pumps
Footing Drains	Lawn Watering	Non-commercial Car Washing
Flows from Riparian Habitats and Wetlands	NPDES permitted discharges	Street wash water
Fire Fighting Emergency Activities	Wash Water from the Cleaning of Buildings	Dechlorinated backwash and draining associated with swimming pools

Table 4b: Types of Discharges that are not allowed to stormwater collection system

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.	Wash water from commercial/industrial activities
Sanitary Sewer Discharges	Septic Tank Discharges	Washing Machines Discharges
Chlorinated backwash and draining associated with swimming pools		

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

Mapping and Field Screening in High Priority Areas

The City of Kinston shall identify a high priority area of its jurisdiction for more detailed mapping and field screening. This high priority area shall comprise at least twenty percent of the jurisdiction's area. Each subsequent year, the City of Kinston is responsible for selecting and screening another high priority area that comprises at least twenty percent of its jurisdiction.

"High Priority" means areas within a jurisdiction where it is most likely to locate illegal discharges. The most likely locations for identifying illegal discharges are areas with older development. Each year the City of Kinston shall explain their basis for selection of the high priority areas.

The screening process for the selected high priority area is conducted using a map of the stormwater system. The map includes the following:

- 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 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 for the selected high priority area is conducting a dry weather field screening of all outfalls that meet the above criteria to detect illegal discharges. The dry weather field screening shall not be conducted during or within 72 hours following a rain event of 0.1 inches or greater. In residential areas, it is recommended to conduct the field screening either before 9:00 am or after 5:00 pm, since these are hours that citizens are most likely to be home and thus any illegal discharges are more likely to be evident.

Figure 4a illustrates a suggested process for conducting field screening sampling activities and following up with any findings of dry weather flow. As shown in the figure, if the field screening shows that an outfall is dry, then the outfall should be checked for intermittent flow at a later date.

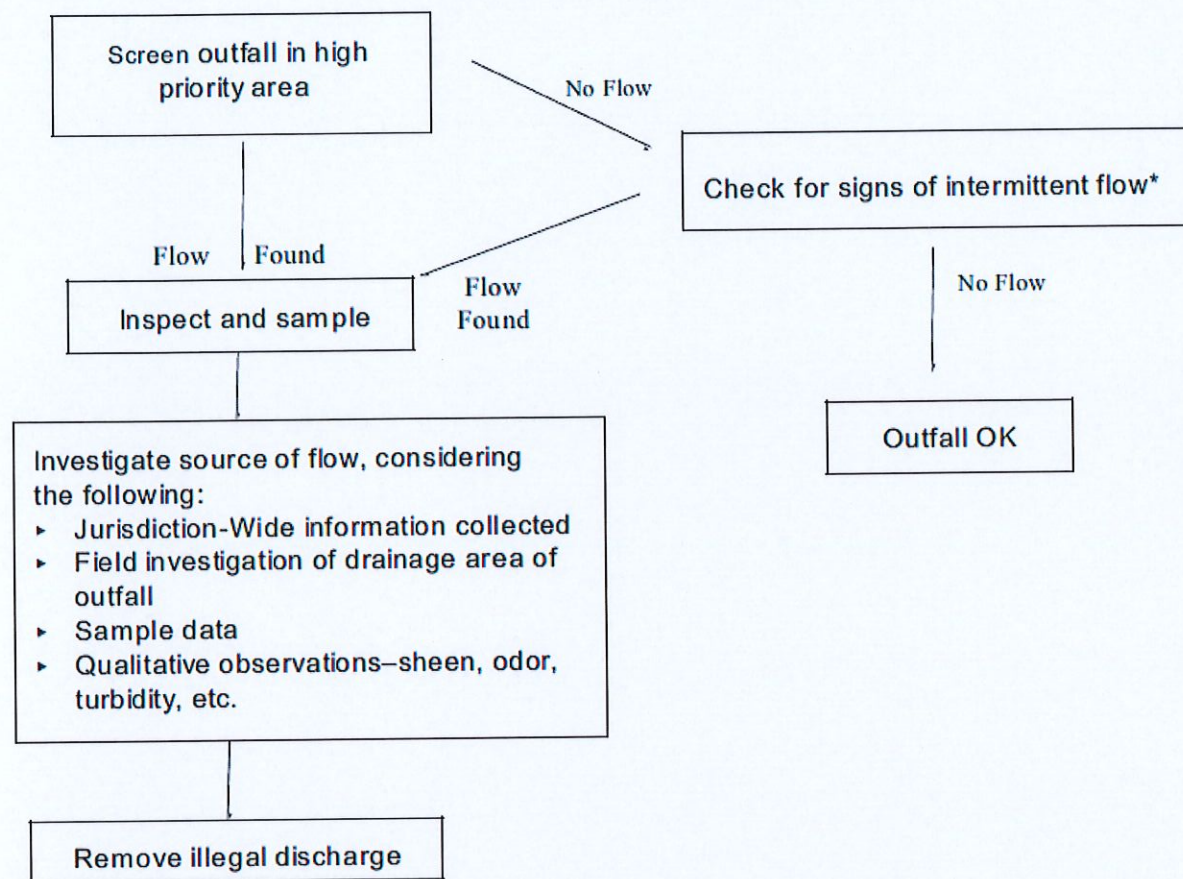
If the field screening shows that an outfall has a dry weather flow, then the City of Kinston shall complete a screening report for the outfall. The information that should be contained in the screening report is outlined in Table 4c. Screening reports shall be kept on file for a minimum of five years.

Table 4c: Field Screening Report information

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

*Analytical monitoring is required only if an obvious source of the dry weather flow cannot be determined through an investigation of the upstream stormwater collection system. Outfalls with flow will be screened again within 24 hours for the above parameters. The tests for ammonia and nitrate that are purchased should be sensitive for 0.1 to 10 mg/L.

Figure 4a: Field Screening Process



* 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.

The purpose of the field screening is to provide clues as to the source of the illegal discharge. The characterization should be in conjunction with the jurisdiction-wide information and a field investigation to identify the source of the illegal discharge. The process of identifying and removing illegal discharges is discussed in the next section.

Identifying and Removing Illegal Discharges

After the field screening is complete, the City of Kinston shall take measures to identify and remove illegal discharges. Identifying illegal discharges will require a combination of office and field work. After the field screening, the City of Kinston should consult the jurisdiction-wide information they have compiled (see Section 3-D) to obtain information about the 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 in the office, a systematic field investigation shall be planned that minimizes the amount of resources required to identify the source. Several field methods may be used to identify illegal discharges. It is recommended that the City of Kinston use a simple approach if that will suffice. Listed below are several approaches, starting with simple approaches and moving to more complex ones.

- Site Investigation
- Additional Chemical Analysis (recommend testing for fecal coliform if the ammonia concentration is found to exceed 1.0 mg/L)
- Flow Monitoring (recommended to use multiple site visits rather than a depth indicator)
- Dye Testing (fluorescent dye is recommended)
- Smoke Testing
- Television Inspection

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

After the City of Kinston identifies the source of an illegal discharge, it shall take enforcement action to have the source removed. The legal authority that is established for the illegal discharge program shall provide the means to accomplish this requirement. Enforcement shall include requiring the person responsible for the discharge to remove or redirect it to the sanitary sewer. There shall be remedies to deal with cases of non-compliance. Records of all compliance actions shall be kept for five years with the screening report.

In addition to keeping all screening reports on file, the City of Kinston shall maintain a map that includes the following:

- 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.

Preventing Discharges and Establishing a Hotline

The City of Kinston shall contact persons who are responsible for establishments that are likely sources of illegal discharges. Some of these sources include automotive sales, rental, repair and detailing establishments, lawn care companies, cleaners and certain types of contractors. Previous experience has shown that many illegal discharges are actually unintentional.

The City of Kinston has established a 24-hour customer service hotline that will allow citizens to report potential illegal discharges and request repairs.

Table 1d: 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

Measurable Tasks for Illicit Discharge Detection and Elimination BMPs

The City of Kinston will develop, manage, implement, document, report and enforce an Illicit Discharge Detection and Elimination Program which includes the following illicit discharge detection and elimination BMPs.

Table 2: Illicit Discharge Detection and Elimination BMPs

Illicit Discharge Detection and Elimination BMPs				
	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.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Task(s)	Schedule for Implementation	Annual Reporting Metric
29.	Creation and Maintenance of Stormdrain Network Map			
	The stormdrain 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. First year	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.	4.	4.
		5.	5.	5.
30.	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. First year	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
		3. (Acquiring a fine-scale watersheds data layer is highly recommended.)	3.	3.
		4.	4.	4.
		5.	5.	5.

31.	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 landuse data layer starting from zoning maps or current landuse data layer.	1. First year	1. Report when data are acquired or updated.
		2.(optional) Refine land use polygon data with identification of specific discharge types and potential sources (e.g. restaurants, auto care, animal care, etc.).	2. Annually	2. Report when data are acquired or updated.
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.
32.	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 stormdrain 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.
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.
33.	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 stormdrain infrastructure, waters of the state, sanitary and septic locations, and land use.	1. First year	1. Completed y/n?
		2. Update maps with revised data layers, and additional data sources if available. Distribute to field staff.	2. Annually	2. Completed y/n?
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.

	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 stormdrain network, including enforcement procedures and actions.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Task(s)	Schedule for Implementation	Annual Reporting Metric
34.	Maintain Legal Authority Maintain the legal authority to prohibit, detect, investigate, and eliminate illicit connections and discharges, illegal dumping and spills into the stormdrain 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. First year	1. Report if a revision is required and if a revision is made.
		2.	2.	2.
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.
35.	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 (see Elimination Protocols BMP #41), and the process for escalation of enforcement.			
		1. Develop enforcement and resolution protocol	1. First year	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
		4.	4.	4.
		5.	5.	5.
	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 stormdrain network.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Task(s)	Schedule for Implementation	Annual Reporting Metric
36.	Proactive Program: Outfall Inspections Perform regular dry weather (no rain in previous 72 hours) outfall inspections to proactively identify illicit discharges and illicit connections.			
		1. Train inspections staff to perform dry weather outfall inspections and illicit discharge investigations	1. Annually as needed	1. Completed y/n?

		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.	4.	4.
		5.	5.	5.

37.	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 2. Revise worksheet based on past year's IDDE incidents 3. 4. 5.	1. First year 2. Second year and annually thereafter. 3. 4. 5.	1. Completed y/n? 2. Date of review 3. 4. 5.
38.	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 BMP #39. 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 (BMP #35) and updated based on IDDE investigations. Forms for collecting data in response to discharge reports will be developed. This program will be regularly updated based on 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 2. Develop standard operating procedures and data collection forms for field investigations 3. Update based on annual IDDE review 4. 5.	1. First year 2. First year 3. Second year and annually thereafter. 4. 5.	1. Completed y/n? 2. Completed y/n? 3. Date of review 4. 5.
39.	Elimination Protocols and Agreements A set of discharge and dumping elimination and cleanup protocols will be developed based on the discharges and source types identified in BMP #39. 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.	1. Determine appropriate elimination / treatment protocols for each type of source/discharge 2. Arrange agreements with cooperating entities as needed 3. Update based on annual IDDE review 4. 5.	1. First year. 2. First year 3. Second year and annually thereafter 4. 5.	1. Completed y/n? 2. Completed y/n? 3. Date of review 4. 5.

40.	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 identified in BMP #38. This program will prioritize screening areas based on likely / expected hot-spots determined from the Landuse and Human Waste GIS data (BMP #33) 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
		5.	5.	5.
41.	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 BMPs for needed SWMP updates	3. Year 2 and annually thereafter.	3. date of review
		4.	4.	4.
Public/Business Outreach About Illicit Discharges, Dumping, Cross-Connection				
(See full BMP description in Public Education and Outreach Table 12, BMP #56)	1.	1.	1.	
	2.	2.	2.	

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.				
BMP No.	A	B	C	D
	Description of BMP	Measurable Task(s)	Schedule for Implementation	Annual Reporting Metric
43.	IDDE Tracking System Develop a tracking system for observed IDDE incidents and results of investigation (BMP #40), cleanup or elimination actions, follow-up actions, enforcement actions (BMP #37), and when the investigation was close. Tracking system will be able to identify chronic violators. Ensure data collected through proactive screening (BMP #42), reports collected from staff (BMP #46), and via the Stormwater Hotline (BMP #47) 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 followup 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

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.				
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
44.	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. Year 2	1. Yes/no/status
		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
		5.	5.	5.

	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.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Task(s)	Schedule for Implementation	Annual Reporting Metric
45.	Stormwater Hotline			
	(See full BMP description in Public Education and Outreach Table 12, BMP #51) Encourage the reporting of strange smells, colored water, foam, and oil.	1.	1.	1.
		2.	2.	2.
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.

PART 7: PUBLIC EDUCATION AND OUTREACH PROGRAM

The City of Kinston 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 nutrients in storm water runoff.

Pollutants, Sources, Audiences Worksheet

The City of Kinston has developed a Public Education Action Plan. The Action Plan outlines the proposed education activities for the upcoming year, identifying target audiences and anticipated costs of the program. The City of Kinston shall submit an annual Action Plan to DWQ along with the annual stormwater self-assessment.

The Action Plan shall consist of activities from each of the two categories listed below in Table 11a. Innovative public education activities not included in this list will be considered for approval on a case-by-case basis. All activities must be designed to raise awareness and educate the audience about water quality, nonpoint source pollution, and the effects of everyday activities on water quality and nutrient loading. In addition to the Category One and Two activities our Action Plans shall include two technical workshops (see below) in the first year and a hotline for reporting illegal discharges.

The ultimate goal of the public education program is to utilize major media advertising (television, radio, and newspaper) to reach a broad audience.

Table 11a: Public Education Action Plan Categories

Category 1	Category 2
Demonstration Sites (for Best Management Practices)	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 bills inserts
Local Cable TV program	Close-out Packages (new homeowners)
Toll free hotline for reporting environmental problems	
Environmental Field Day	
Technical Workshop (only applicable after 1st year)	
Environmental Contest	

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

Table 3b: Pollutants, Sources, Audiences Worksheet

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	Testing for Nitrates and Nitrites	Soil tests, fertilizer guidance, alternative planting	Remove waste	
	Sanitary sewer leaks, sanitary cross-connections	All types	Homeowners, businesses		Self-assessment of sewer services	Remove waste, fix leak	
	Animal waste	SFR ROW, parks	Dog owners		Pet waste bags and disposal stations	Remove waste	
Petroleum Products	Gas/Oil spills	low-density SFR, auto care businesses	General Public, Businesses, Local Government Employees	Testing for Hydrocarbons	Proper disposal and handling of petroleum products	Absorbent materials	
Fecal Indicator Bacteria	Sanitary sewer leaks, sanitary cross-connections	All types	Homeowners, businesses	Fecal Coliform Testing	Self-assessment of sewer services	Remove waste, fix leak	
Chlorine (misc hypochlorite)	Pools	SFR, recreation centers	Homeowners, Local Government Facilities	high conductivity	Pool draining guidance for owners, rec center operators	Address source of pollutant	
Detergents	Sanitary sewer leaks, cross-connections	All types	Homeowners, businesses	pH Monitoring	Self-assessment of sewer services	Remove waste, fix leak	
	Car washes	SFR, commercial	Homeowners, charity organizations		Direct water to grassy areas, intercept with boom and direct to sanitary sewer	Remove waste, fix leak	

Measurable Tasks for Public Education and Outreach BMPs

The City of Kinston will manage, implement and report the following public education and outreach BMPs. Additional outreach shall be conducted through the Clean Water Education Partnership (CWEP) Program which the City of Kinston has an agreement with (See Appendix B).

Table 4: Public Education and Outreach BMPs

Public Education and Outreach BMPs				
	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.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Task(s)	Schedule for Implementation	Annual Reporting Metric
46.	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.
		5.	5.	5.

47.	Develop and Update Public Education Plan			
	Develop a Public Education and Outreach Plan based on the pollutants, sources, and audiences identified (BMP #48). 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.	1. Develop initial Public Education and Outreach Plan based on identified pollutants, sources, and audiences.	1. First year	1. Share plan with DEQ.
		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 (BMP #48).	2. Second year and annually thereafter.	2. Share revised plan with DEQ
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.

BMP No.	A	B	C	D
	Description of BMP	Measurable Task(s)	Schedule for Implementation	Annual Reporting Metric
48.	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 and opportunities for involvement.	1. Establish the stormwater web page	1. First year	1. Report the date the web page goes live, webpage URL
		2. Maintain the webpage, update any broken links, upload new educational material (<i>list materials under Targeted Audiences and Topics</i>), 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
		3. Set a hit counter in order to monitor engagement	3. Annually	3. Report the number of hits
		4.	4.	4.
		5.	5.	5.
49.	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 BMP is referenced in Illicit Discharge and Detection Table 10, BMP #47)	1. Set up and maintain hotline phone number	1. First year	1. Report the date the hotline is established, the phone number, and status in subsequent years

	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 (yes/no), status
	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
	5.	5.	5.

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.			

50.	Partnership with CWEP			
	The City of Kinston will engage with CWEP to develop Education and Outreach Initiatives that will be administered by CWEP. (See Appendix B)	1. Arrange partnership with CWEP and establish legal agreement or contract	1. Task Completed	1. Report date established and terms of legal agreement
		2. Submit a partnership plan detailing specific commitments of the CWEP partnership to NC DEQ for approval	2. Partnership plan is attached in Appendix B	2. Report date plan is approved and include as enforceable amendment to Local Program
		3. Monitor CWEP activities to ensure partnership commitments are met	3. Annually, following establishment of partnership	3. Yes/no/status

	Targeted Outreach Audiences and Topics Measures below include specific messages to singular or groups of target audiences, pollutant types, pollutant sources, or management actions.			
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BMP No.	A	B	C	D
	Description of BMP	Measurable Task(s)	Schedule for Implementation	Annual Reporting Metric

51.	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 BMP is referenced in Post-Construction Site Runoff Control Table 9, BMP #28)	1. Upload links to ordinances, post-construction requirements, link to design standards, and other relevant material to website	1. First year	1.
		2. Update when changes to resources occur	2. Annually	2.
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.

52.	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 BMP is referenced in Post-Construction Site Runoff Control Table 9, BMP #29)	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.
		2. Update when changes to resources occur	2. Annually	2.
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.
53.	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 BMP is referenced in Post-Construction Site Runoff Control Table 9, BMP #30)	1.	1.	1.
		2.	2.	2.
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.
54.	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 common cause of miscommunication. (This BMP is referenced in Illicit Discharge and Detection Table 10, BMP #44)	1.	1.	1.
		2.	2.	2.
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.