

		
	N.C. Department of Environment & Natural Resources	
	Division of Water Resources	
	Jordan Nutrient Strategy : Program Year 4	
Annual Report October 1, 2014—September 30, 2015		
<p>Reports, supplemental forms and MS4 maps should be emailed to: <a href="mailto:Bridget.Munger@ncdenr.gov">Bridget.Munger@ncdenr.gov</a></p>		
<b>SECTION I</b>		
Local Government Name: Town of Pittsboro		
County: Chatham		
EXISTING WATER QUALITY PROGRAMS		
Water Supply Watershed? WS-IV NSW Watershed		
Phase II?	Local program satisfies Phase II requirements, Jordan Lake Rules	
*NOTE: Phase II communities are only required to complete Section I and Section VI of this form.		
DOES A THIRD PARTY SUCH AS A CONSULTING FIRM, PARTNER, LOCAL GOVERNMENT OR OTHER GROUP SATISFY ANY OF YOUR PROGRAM OBLIGATIONS? IF SO, PLEASE PROVIDE THAT INFORMATION BELOW. N/A		
If yes, identify below party and the program element they implement:		
Name:		
Element(s) they implement:		
Contact Person		
Address		
City:		
Email		
Are legal agreements in place to establish these responsibilities?		
LOCAL GOVERNMENT CONTACT INFORMATION		
Provide the following information for the person/position responsible for day-to-day implementation and oversight of your local government's Stage One Adaptive Management Program for Existing Development.		
Contact Person	Fred Royal, PE	
Address	P.O. Box 759	
City: Pittsboro	State: NC	
Telephone: (919) 542-2063	Fax: (919) 542-2310	
Email	<a href="mailto:froyal@pittsboronc.gov">froyal@pittsboronc.gov</a>	

**OVERVIEW OF ANNUAL REPORT REQUIREMENTS**

Session Law 2009-216 requires local governments in the Jordan Lake watershed to submit a Stage One Adaptive Management Program report annually to the N.C. Department of Environment and Natural Resources, (formally) Division of Water Quality, now Division of Water Resources.

**Stage One Adaptive Management Program for Existing Development Requirements:**

1. Public education program to inform the public of the impacts of nutrient loading and measures implemented to reduce nutrient loading from Stormwater runoff.
2. Mapping program that includes major components of the municipal separate storm-sewer system, including the location of major outfalls, names and locations of waters that receive discharges from those outfalls, land use types and location of sanitary sewers.
3. Program to identify and remove illegal discharges.
4. Program to ensure maintenance of best management practices implemented.
5. Program to identify opportunities for retrofits and other projects to reduce nutrient loading existing development.

**Best Management Practices**

Local governments must identify and submit a table of the best management practices, or BMPs, that are being implemented for each of the program's five measures. This form provides tables for reporting BMPs.

**SECTION II: PUBLIC EDUCATION PROGRAM**

Objectives for Public Education and Outreach Program

1. Distribute educational materials to the community.
2. Conduct public outreach activities.
3. Raise public awareness on causes and impacts of Stormwater runoff.
4. Inform public on steps they can take to reduce Stormwater runoff pollution.
5. Provide opportunities for public participation in program development and implementation.

**Public Outreach and Education Program: Program Year 4**

*Provide information for all BMPs that apply per your approved program.*

<b>BMP Implemented</b>	<b>Implementation details</b>
Develop Public Education Program: List components of program.	The Town will continue to work with the Triangle J Council of Governments Clean Water Education Partnership (CWEP) to provide Public Education and Outreach and expand its partnerships moving forward. This program is steadily expanding with the new Town Engineer position, beginning in Program Year 4. Initial partners include: Clean Jordan Lake, Robeson Creek Watershed Council and CWEP. A water quality educational booth is set up annually at the Town's Fall Street Fair (See attached Street Fair materials), other activities and materials will continue to be developed in Program Year 5.
Educational website: Provide link.	CWEP website: <a href="http://www.nccwep.org/index.php">http://www.nccwep.org/index.php</a>
Engineering	Printed educational brochures developed by DEQ and the Town are made available to the public at Town Hall and the Engineering Office at: <a href="http://pittsboronc.gov">pittsboronc.gov</a>
Engineering	<a href="http://www.nccwep.org/outreach/print.php">The CWEP materials are available at: http://www.nccwep.org/outreach/print.php</a>

Distribution of Educational Materials: Provide number of items distributed and to whom.	Distribution rates of printed educational materials show that 57 brochures were handed out at the 2013 Street Fair. Beginning in 2014, in addition to Brochures, we developed "Water Quality Quizzes" to educate and test local knowledge. In 2014, 87 citizens took the Quiz, 86 citizens took it in 2015. Each participant was given a "Stormwater Program" Water Bottle as well. (See attached 2015 Quiz.) We also conducted a Stormwater Education Survey. We received 189 responses or approximately 5% of residents. (See attached survey.) An Outreach Education Document was developed with the ordinance and is attached.
Media Campaign: Provide details of radio spots aired.	Details of radio campaigns developed by the CWEP are available at: <a href="http://www.nccwep.org/outreach/radio.php">http://www.nccwep.org/outreach/radio.php</a>
Media Campaign: Provide details of TV spots aired.	Details of television campaigns developed by the CWEP are available at: <a href="http://www.nccwep.org/outreach/television.php">http://www.nccwep.org/outreach/television.php</a>
K-12 Outreach: List activities that targeted this audience, providing date, materials distributed, and number attending.	The Town currently has no staff resources to conduct any K-12 outreach, however the County Soil and Water Conservation District does provide this to local schools intermittently.
Public Meetings and/or Events: Provide dates, number attending, target audience and topics presented.	The Town is a participant in the Robeson Creek Watershed Council. Quarterly public meetings occur where topics are discussed to include: BMP retrofits, conservation easements, water quality monitoring, grants obtained and progress, BMP maintenance, training via Agriculture Extension Service and other activities.
Community Volunteer Program: Provide details of local water quality volunteer programs and/or events.	The Town is an active participant in the Robeson Creek Watershed Council. The Town developed a survey concerning the Storm Water Management Program. There were one hundred and eighty-nine (189) survey responses. The storm water program booth (Engineering Department) is at the annual Fall Street Fair. Other volunteer programs are going to be developed in Year 5. At the annual street fair the Town Engineering Department surveyed citizens on their Stormwater knowledge through a "Water Quality quiz". There were ninety (90) participants. Each participate received a Stormwater water bottle.
Establish Citizens' Group: Provide date established, name of group and focus of work.	The Town considers its Citizens' Group as the Robeson Creek Watershed Council. The Town Engineer will be responsible for participating with this group quarterly and more depending on projects.
Annual Outreach Program Coordination Meeting: List date and group(s) represented at meeting.	The Town held an Outreach Program Coordination Meeting on May 22, 2013. See attached brochure. The Town Engineer was responsible for arranging this meeting and providing all information concerning the BMP retrofit program underway, funded by the USEPA 319 Grant award in 2013. This is an on-going 319 Grant-Funded Retrofit Program. It will last until the summer of 2017.

**SECTION III: MAPPING PROGRAM**

Objectives for Mapping Program:  
 Maintain an inventory of major outfalls and Stormwater drainage components.

**BMP Implemented**

Sanitary sewer system and Stormwater outfall inventory map.

Please use the space below to provide the following information that is required as part of this annual report:

1. Mapping program objectives as per your approved program.
2. Specific details of how map was developed, activities and progress over the past year.
3. Status of mapping program as compared to your approved program.

The Town has developed a map of the Stormwater Retrofit BMP's (See attached). The Town Engineering Department is responsible for maintaining the BMP Retrofit map and developing a Stormwater system outfall map beginning in Year 5. The Town has purchased a GPS Unit for BMP and storm-sewer outfall data collection.

**SECTION IV: ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM**

Objectives for Illicit Discharge Detection and Elimination:

1. Develop and implement program to detect and eliminate illicit discharges.
2. Detect and eliminate illicit discharges.
3. Address significant contributors of pollutants.
4. Inform municipal employees, businesses and public of hazards associated with illegal discharges and improper waste disposal.

*Provide information for all BMPs that are part of your approved program.*

**BMP Implemented**

Establish appropriate legal authorities to enforce program.	In Program Year 4 the Town hired a Town Engineer who developed an ordinance that details enforcement actions for non-compliance. The Stormwater Ordinance for New Development was provided in last year's report. The Town Engineer is actively enforcing the ordinance, as the Stormwater Administrator.
Implement illicit discharge detection procedures.	See above comment.
Municipal employee training on illicit discharges.	In Program Year 5 the Town Engineer will ensure that Town employees receive adequate training on illicit discharges.
Public and business sector education.	In Program Year 5 the Town Engineer will develop a program to ensure that the public and businesses receive education on illicit discharges via the brochure and website.
Mechanism for public to report illicit discharges.	In Program Year 5 the Town Engineer will develop interactive link on the Town website for the public to report illicit discharges.

<b>BMP Implemented</b>	
Local government BMP Operation and Maintenance program.	
Mechanism to require annual inspections of structural BMPs.	The requirement for annual inspections of structural BMPs is listed in the Town's Zoning Ordinance (Section 5.5.13 L) as well as the Stormwater Ordinance for New Development.
BMP Operation and Maintenance training program for employees and the public.	In Program Year 5 the Town Engineer will continue to develop a program to ensure that applicable Town employees and the public receive adequate training on BMP O&M.
Mechanism/program to require and maintain inventory of structural BMPs.	In Program Year 5 the Town Engineer will continue to advance a GIS inventory of public structural BMPs, Outfalls and other drainage infrastructure.
Mechanism to require annual review of the BMP Operation and Maintenance program.	In Program Year 5 the Town Engineer will review the BMP O&M program and make adjustments as needed.

**SECTION VI: OPPORTUNITIES FOR RETROFITS TO REDUCE NUTRIENT LOADING**

**Opportunities for Retrofits to Reduce Nutrient Loading**

Local government must develop a program to identify opportunities for retrofit projects to reduce nutrient loading from existing developed lands. The program must include a process to identify and prioritize locations for such projects. Retrofit opportunities will be considered acceptable if all of the following conditions have been investigated:

1. The proposed retrofit clearly has the potential to reduce nitrogen or phosphorus loading to the receiving water.
2. The watershed is clearly contributing nitrogen or phosphorus loading above background levels.
3. Landowner where retrofit is proposed agrees to retrofit installation on property.
4. There is adequate space and access for the retrofit.
5. It is technically practical to install a retrofit at that location.

The minimum number of retrofit opportunities each local government is required to identify is based on population. For those communities that are not completely located within the Jordan watershed, the number of retrofits can be based on the estimated population within the watershed. The local government will have to provide the data to support the population estimate used.

Table 1 below shows the minimum requirements for identifying retrofit opportunities on an annual basis based upon local governments' population in the watershed. Sites may be carried over to meet the minimum requirements for up to two subsequent years provided that:

1. BMPs/retrofits have not been implemented.
2. The site continues to meet the criteria stated above on an annual basis.

**Table 1: Minimum Retrofit Requirements**

Population in Watershed	Minimum Number of Existing Development Nutrient Load-Reducing Projects
Less than 15,000	<input checked="" type="checkbox"/> 1
15,000 - 30,000	<input type="checkbox"/> 2
30,000 - 60,000	<input type="checkbox"/> 3
60,000+	<input type="checkbox"/> 4

**Data Collection and Notification**

Each retrofit opportunity must include data describing the location, type of retrofit proposed, property owner, as well as basic information about the watershed and receiving waters. Table 2 below provides a format for submitting this information. Local governments that must submit more than one retrofit should use the Supplemental Retrofit Form (Attachment A) to submit information on additional projects. That form is available for download at [www.jordanlake.org](http://www.jordanlake.org).

**Table 2: Retrofit Opportunity Table**

Location description, including directions from a major highway	The on-going USEPA 319 Grant Application, was provided in last year's report. It includes five new BMP retrofits that are going to be constructed over a three year period. It includes the Town Hall BMP that was described in last year's annual report and described below. These five BMP retrofits will be included in next years report or as they are constructed.
Type and description of retrofit opportunity.	Bio-retention Cell without IWS
Current property owner	Town
Is the property owner willing to cooperate?	yes
Land area available for retrofit (sq. ft.)	2,000 ft <sup>2</sup>
Accessibility to retrofit site	yes
Drainage area size (acres)	0.65 ac
Land use in drainage area (percent of each type of land use)	100% Business (from Land Use Plan)
Average slope in drainage area (%)	14.30%
Environmentally sensitive areas in drainage area such as wetlands, riparian buffers, endangered or threatened species.	N/A
Approximate annual nitrogen and phosphorus loading from drainage area (lbs./acre/year) *	TN = 7.38 lbs./acre/year; TP = 1.19 lbs./acre/year
Potential nitrogen reduction (lbs./ac/yr.)*	3.75 lbs./acre/year
Potential phosphorus reduction (lbs./ac/yr.)*	0.72 lbs./acre/year
Estimated cost of retrofit	\$5,300
Receiving water	Robeson Creek
DWQ classification of receiving water	WS-IV; NSW
Use support rating for receiving water	Impaired - Ecological/Biological Integrity Benthos

Other retrofit information you may wish to provide	Listed above is one of five BMP retrofits to be constructed, the Town will continue to expand the site investigations for future BMP retrofits and pursue additional 319 and other grant funds to carry out additional BMP retrofits. We anticipate that this program will continue to expand in the Town of Pittsboro. Survey work is complete for 3 of the 5 BMP retrofits. Design is completed for a 2 BMP Retrofit at Town Hall. These will be constructed in the summer of 2016. At Town hall there will be two (2 ) bio-retention cells with combo sectarian, and EWQ channel. In the summer of 2017 the Town will construct bio-retention cells at the County Court House Circle. At present time these are in the design phase. Finally, a cistern and water quality channel will be designed and constructed by the summer of 2017. This BMP will treat downtown business rooftops and will include an Educational Pocket Park.
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