

APPENDIX B: BMPs and Measurable Goals

1. BMP's and Measurable Goals for Public Education and Outreach

	BMP	Measurable Goals	YR 1	YR 2	YR 3	YR 4	YR 5	Responsible Position/Party
1	Develop an annual education plan	Prepare education plan in the first 6 months of the permit. Include in Plan the BMPs, schedule, targeted audiences, and measurable goals. Summarize plan and implementation progress in each annual report.	X	X	X	X	X	Stormwater Specialist
2	Informational Website	Develop and maintain a stormwater information page for the existing internet website. Post brochures and provide information on water quality, stormwater pollutants and ways to minimize them, municipal stormwater projects and activities. Also provide contacts for reporting and questions.	X	X	X	X	X	Stormwater Specialist
3	Monthly information for homeowners	Develop a stormwater information tip monthly for placement in the Town's utility bill publication "BUD". Include one tip each newsletter that targets a specific stormwater problem and how citizens can reduce their impacts.	X	X	X	X	X	Stormwater Specialist
4	Newspaper advertising	Purchase newspaper ads to target specific pollutant messages beginning in Year 1 and repeat twice per year. Continue to utilize the Town's Conservation Corner in the Cary News to place weekly stormwater tips. Place weekly tips at least 13 times per year. Report annually on number of ads placed, newspapers used, and targeted pollutant.	X	X	X	X	X	Stormwater Specialist
4	Mass media campaign	Work with TJCOG to develop mass media campaign messages for use on regional TV stations, local government cable channel, and regional radio. Target message about the importance of clean water and how stormwater gets dirty. Give tips on reducing pollution. Identify target audience and track the number of time shown; report annually.	X	X	X	X	X	Stormwater Specialist
4	Distribute pollution prevention brochures and posters	Distribute brochures and posters through event displays and block leader program. Include information on steps to reduce pollution sources including proper disposal of used oil and toxic materials, public reporting of illicit discharges and awareness of nutrient and fecal coliform issues.	X	X	X	X	X	Stormwater Specialist
5	Festivals, local fairs	Participate in 2-4 local festivals annually by staffing a booth or a hands on activity starting in Year 1 and report annually on event and message provided. Provide messages on the importance of clean water and on specific activities that can be carried out to help	X	X	X	X	X	Stormwater Specialist

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		keep stormwater clean. At a minimum, staff will participate in the Town's annual Clean Water Day and Earth Day celebrations.						
6	Annual Public Workshops	Conduct annual informational workshops. Include information on past, present, and future projects and information on ways the public can work to enhance water quality.	X	X	X	X	X	Stormwater Specialist
7	Educational Materials/Presentations for Schools	Develop age-specific educational information for use in schools and for presentations to school age children. Incorporate information into the water conservation program.			X	X	X	New position _B / Water Conservation Assistant
8	Business Outreach Program	Develop and conduct an educational campaign to inform businesses on illicit discharges, reporting, improper waste disposal, sources of nutrient and fecal coliform loading and actions they can take to minimize them.				X	X	New position _B

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2. Public Involvement Program BMP Summary Table

	BMP	Measurable Goals	YR 1	YR 2	YR 3	YR 4	YR 5	Responsible Position/Party
1	Storm drain stenciling	Stencil 5% of Town each year, measured in square miles of community. Assign volunteers to area selected and have leader complete summary report on sections finished. Report annually on amount of community completed.	X	X	X	X	X	Stormwater Specialist
2	Develop a Speakers Bureau	Set up speakers bureau in Year1 Maintain speakers list, provide with a report format to collect information of events attended, name of group, date, time and location. Provide with topics based on targeted messages in coordination with Education Program. Report annually by summarizing number of events and topics covered.	X	X	X	X	X	Stormwater Specialist
3	Communications "hotline"	Set up hotline in Year2. Manage a database of calls received on communications hotline, including date, time, person calling, contact information, disposition of call. Report annually on number of calls received, topics covered and a summary of the disposition of the calls.		X	X	X	X	New position _A
4	Citizen surveys	Conduct research through citizen surveys to target stormwater education and management efforts. Survey methods to be used include a web poll, a mail survey and citizen focus groups.	X	X	X	X	X	Stormwater Specialist
5	Set up an ongoing advisory committee	Set up advisory committee in Year 1. Have monthly advisory committee meetings for the first 6-9 months reducing the meetings to quarterly thereafter, prepare minutes of meeting, agenda, and attendees list. Focus committee on targeted pollution programs of concern. Report annually on number of meetings and subjects covered.		X	X	X	X	Stormwater Specialist / PIO
6	Establish an "adopt a stream" program	Establish adopt a stream program in Year 4 and track volunteer groups by name, project, activities completed, contact information, and have group prepare a summary report of activities each year. Report on program, providing amount of miles cleaned and frequency of activities in annual report.				X	X	New position _B

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3. Illicit Discharge Detection and Elimination BMP Summary Table

BMP	Measurable Goals	YR 1	YR 2	YR 3	YR 4	YR 5	Responsible Position/Party	
1	Legal Authority	Develop ordinance/amend existing ordinance to include illicit detection, right of entry, prohibition of certain discharges, enforcement actions and penalties for dumping, spills, and willful illicit connections.	X	X	X	X	X	New position _A
2	Stormwater Infrastructure Inventory	The Town currently has a GIS layer of storm drain pipes and inlets. Detailed mapping of the storm drainage system began in 2002 to meet requirements of the Neuse Stormwater Rules. At least 10% of theTown will be mapped annually with completion of the Town occurring by 2012. The map will note outfalls and receiving body of water for each outfall. Report annually on progress.	X	X	X	X	X	Stormwater Manager
3	Database tracking system	Develop a database tracking system for tracking citizen complaints and requests. All complaints will be logged including information on follow-up and geographical location of illegal discharge or spill. GIS will be used to track "hot spots".	X	X	X	X	X	New position _A
4	Chemical testing of outfalls	Inspect 10% of community annually during dry weather conditions (i.e., hasn't rained in 72 hours) and test flows found at discharge points. Create database of outfalls, inspection date, chemical tests conducted, findings and follow up procedures. Report on number and actions taken in each annual report.	X	X	X	X	X	New position _A
5	Direct Mail	Create and distribute letters targeting business owners. The letter shall inform business owners of the illegal discharge ordinance and inform them of potential inspection. At a minimum letters shall target landscapers, painting companies, carpet cleaners, automotive businesses and restaurants.		X	X	X	X	New position _A
6	Inspection Program	Town staff will be cross-trained to recognize and report illegal discharges. Staff to be trained include code enforcement officers, inspectors and police & fire personnel. Additional staff will be added to the Stormwater Division to manage the illicit discharge program.		X	X	X	X	New position _A
7	Train Town staff	Provide materials through Human Resources to train employees in organization on illicit connections and how to recognize them. Complete by end of year 2 and note date distributed. Summarize in annual report. This is also a requirement of the Neuse Stormwater Rules.		X	X	X	X	New position _A

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8	Fact Sheets	Develop fact sheets on illicit connections and spill management. Provide to Inspections & Permits and Fire Department for distribution to businesses. Prepare fact sheets for commercial property managers, restaurant owner/operators, and automotive businesses. Make available in Town Hall. Complete by end of year 3 and provide samples in annual report. Note date completed and number of copies placed for distribution.			X	X	X	New position _A
9	Business assistance program	Create a program to educate and assist businesses with pollution prevention. Create guidelines or requirements for businesses to meet for special recognition. Publish a list of environmentally responsible businesses in the Cary News, write up at least one business on a quarterly basis and publish on the web site and recognize in the utility insert.				X	X	New position _B
10	On-site Wastewater Systems	Coordinate with local health department on failing septic systems, locating problem areas in the system map. Provide information on septic system inspection and maintenance on Town's web site. Distribute information to homeowners association in areas outside sewer service. Note date of distribution and number of copies placed.			X	X	X	New position _B
11	Stream monitoring	Monitor stream quality and quantity to document trends in pollutant loading Report annually on streams sampled and data collected on each.				X	X	New position _B

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4. Construction Site Program BMP Summary Table

	BMP	Measurable Goals	YR 1	YR 2	YR 3	YR 4	YR 5	Responsible Position/Party
1	Legal Authority	Review /amend existing erosion control ordinance as needed to improve sediment and erosion control program and comply with Neuse Rules and Phase II requirements.	X	X	X	X	X	Erosion Control Supervisor
2	Plan review	Reviews site plans for all new development with disturbed area greater than 12,000 square feet. All site plans are reviewed to ensure compliance with sedimentation and soil erosion, storm water, and flood plain management ordinances and state laws. Reviews storm drainage systems to ensure they meet the design and Town criteria.	X	X	X	X	X	Erosion Control Supervisor
3	Performance bonds							
4	Pre-construction Meetings		X	X	X	X	X	Erosion Control Supervisor
5	Inspection Program	Inspect all construction sites greater than 12,000 square feet of disturbed area to ensure that grading and construction operations comply with the erosion control and sedimentation control ordinance. Make on-site visits to construction sites during the construction process to ensure proper measures for compliance; check grade, soil barriers, tree protection fence, impoundment structures, and other features. Verify that the erosion control measures on the approved plan are properly installed and function as designed. Inspect all single family residences for Silt Fence and Residential Construction Entrance (S-100) prior to footing inspection.	X	X	X	X	X	Erosion Control Supervisor
5	Database tracking system		X	X	X	X	X	Erosion Control Supervisor
7	Local program meetings	Attend quarterly local program meetings to stay abreast of State regulations and share information with other locally delegated sediment & erosion programs in the region.	X	X	X	X	X	Erosion Control Supervisor
8	Town projects	Inspect Town Projects upon request to ensure compliance with state approved erosion control plan.	X	X	X	X	X	Erosion Control Supervisor
9	Clean Water Contractor Education	Provide one training event each year using the Clean Water Contractor curriculum provided by the NC Division of Land Quality. Document training program for site operators providing numbers of training events held and number of site operators trained each year.	X	X	X	X	X	Erosion Control Supervisor
9	Coordination of NPDES permitted sites				X	X	X	Erosion Control Supervisor

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	Standard specifications for BMPs	Revise / amend standard specifications for sediment and erosion control BMPs as needed						

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5. Post Construction Runoff Control Program BMP Summary Table

	BMP	Measurable Goals	YR 1	YR 2	YR 3	YR 4	YR 5	Responsible Position/Party
1	Legal Authority	Review /amend existing stormwater ordinances for new development as needed to comply with Neuse Rules and Phase II requirements.	X	X	X	X	X	Erosion Control Supervisor
2	Plan review	Reviews site plans for all new development with disturbed area greater than 12,000 square feet. All site plans are reviewed to ensure compliance with Neuse stormwater rules, watershed water supply regulations, NPDES Phase II requirements and small area plan stormwater requirements as applicable. Review all water quality and quantity BMP designs to ensure they are effective.	X	X	X	X	X	Erosion Control Supervisor
3	BMP documentation and performance bonds							
4	Pre-construction Meetings		X	X	X	X	X	Erosion Control Supervisor
5	Inspection Program	Inspect all construction sites greater than 12,000 square feet of disturbed area verify that the <u>Best Management Practices (BMPs)</u> for water quality and quantity control on the approved plan are properly installed and function as designed.	X	X	X	X	X	Erosion Control Supervisor
5	Database tracking system	Track each project by spreadsheet. Data tracked includes project area, nitrogen loading, buydown payments.	X	X	X	X	X	Erosion Control Supervisor
6	BMP Inspections	Conduct annual inspection of Stormwater Best Management Practices to ensure proper operations & maintenance. Correspond with responsible party to request corrective actions.	X	X	X	X	X	Erosion Control Supervisor
7	Local program meetings	Attend local program meetings to stay abreast of State regulations and share information with other locally delegated stormwater programs in the region.	X	X	X	X	X	Erosion Control Supervisor
8	Town projects	Inspect Town Projects upon request to ensure compliance with stormwater regulations.	X	X	X	X	X	Erosion Control Supervisor
9	Standard specifications for BMPs	Revise / amend standard specifications for stormwater BMPs as needed						
10	Evaluate on-site wastewater system policies and procedures	Implement a program that will require evaluation of septic systems by the Wake County EHD, or a contractor certified by Wake County, at the time of property sale. For additions with existing OSWW, require an evaluation of the septic system by the Wake County EHD prior to the Town signing off for the building permit.			X	X	X	New position _A / Inspections & Permits Staff

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6. Good Housekeeping and Pollution Prevention BMP Summary Table

	BMP	Measurable Goals	YR 1	YR 2	YR 3	YR 4	YR 5	Responsible Position/Party
1	Inventory Town-owned facilities	Complete an inventory of Town-owned facilities that will be evaluated through an environmental audit to determine potential pollution contributions. Prioritize facilities for an environmental audit. Report on number and type facilities that you will audit.	X					Public Works Director / Stormwater Staff
2	Environmental Audit	In Year 2 begin environmental audits at priority sites and complete all audits by Year 3. Prioritize recommendations as each audit is completed and initiate recommendations in the fiscal year following the audit, except where any extreme hazard or potential human risk is identified. High hazards will be addressed immediately upon identification. Report annually on progress toward meeting recommendations. Objective is to reduce pollutant loading from municipal sites.	X	X	X	X	X	Public Works Director / Stormwater Staff
3	Train all PWUT Staff	Educate all employees on clean water issues and on workplace responsibilities to reduce or eliminate pollutants from stormwater. Maintain program annually and report on number of employees trained and subjects covered.		X	X	X	X	Public Works Director / Stormwater Staff
4	Train Stormwater Maintenance Staff	Provide training to all employees who maintain the drainage system with a focus on floatable, grit, sediment, and disposal of pollutants removed from the drainage system. Report annually on number of employees trained and subjects covered.		X	X	X	X	Public Works Director
5	Train Buildings & Grounds staff	Provide training to all employees who manage and apply chemicals to address safe storage, application and disposal of residual chemicals. Repeat training annually throughout the permit. Report on number of employees trained and subjects covered.		X	X	X	X	Public Works Director
5	Inspect Vehicle Washing and Fueling Operations	Annually inspect vehicle washing and fueling operations to ensure that they are in good working order and that they minimize exposure of stormwater to chemicals, fuels, and other liquids. Document findings and actions taken to address any problems identified. Report on finding in annual permit report.	X	X	X	X	X	Public Works Director
6	Inspect materials storage areas	Inspect material storage facilities and establish priorities for addressing issues identified. Address corrective activity within 24 months of inspection. Report on number and type of sites inspected and actions taken in each annual report.	X	X	X	X	X	Public Works Director

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	BMP	Measurable Goals	YR 1	YR 2	YR 3	YR 4	YR 5	Responsible Position/Party
7	.Inspect salt storage facility and evaluate snow/ice management program	Inspect salt storage facility and application equipment annually to identify and eliminate exposure to stormwater and/or ineffective / inappropriate application. In year 3, evaluate current snow and ice management program and ensure that effective measures are in place to minimize contamination Identify problems and address when found. Report annually on inspections and resulting actions	X	X	X	X	X	Public Works Director/ Stormwater Staff
8	Develop standard operating procedures	Develop standard operating procedures for various facilities and/or operations such as street sweeping activities and parking lot (garage) maintenance activities to ensure that the greatest reduction of pollutant loading to stormwater that can be achieved. Annually report on facilities and/or operations targeted and results of activities.				X	X	Public Works Director / Stormwater Staff
9	Evaluate solid waste collection procedures	Evaluate solid waste collection practices (including leaf pick up) to determine if procedures or equipment adjustments need to be made to address potential for pollution of stormwater. Focus on issues such as spills in the street, hydraulic hose ruptures, customer storage practices. Report on findings and any workplan that develops as a result.			X	X	X	Public Works Director/ Stormwater Staff
10	Evaluate spill response	Evaluate current spill response practices and determine if adjustments are needed to reduce the risk of polluting bodies of water (streams, ponds, lakes, ocean). Implement recommended changes in Year 5 and report on findings and strategies in annual reports.			X	X	X	Public Works Director/ Stormwater Staff
11	Evaluate oil recycling program	Evaluate existing or potential for a new used oil recycling program. Implement new program or make changes to existing program in Year 5. Report annually on program, including amount recycled and adjustments made as needed.				X	X	Public Works Director
12	Maintain hazardous chemical inventory	Maintain inventory of hazardous chemicals and other potentially hazardous materials and ensure that limited but sufficient quantity of items are on hand to minimize risk of spill or contamination of stormwater. Conduct research on alternative products to reduce risk of surface water contamination. Document findings and actions taken in annual report.	X	X	X	X	X	Public Works Director

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	BMP	Measurable Goals	YR 1	YR 2	YR 3	YR 4	YR 5	Responsible Position/Party
13	Evaluate sanitary sewer and water supply maintenance programs	Evaluate sanitary sewer and water supply maintenance activities to ensure that the greatest reduction of pollutant loading to stormwater that can be achieved. Revise procedures as needed to minimize pollutant loading. Track cross connections found and eliminated.			X	X		Public Works Director/ Stormwater Staff
14	Evaluate road construction and maintenance practices	Evaluate road construction and maintenance activities to ensure that the greatest reduction of pollutant loading to stormwater that can be achieved. Revise procedures as needed to minimize pollutant loading.			X	X	X	Engineering Director/ Stormwater Staff

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