

# TOWN OF NAVASSA

## PHASE II STORMWATER IMPLEMENTATION PLAN



Southeastern Regional Office  
June 2007



**TOWN OF NAVASSA**  
**PHASE II STORMWATER IMPLEMENTATION PLAN**

**Prepared for**  
**The Town of Navassa, North Carolina**

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## INTRODUCTION

This plan has been prepared for the Town of Navassa by the North Carolina Department of Commerce – Division of Community Assistance (DCA) to assist the Town as it begins the implementation of its Phase II stormwater program. The Town became subject to the Phase II stormwater rules on March 1, 2007 and received a permit from the North Carolina Division of Water Quality (DWQ), effective on that date, to discharge stormwater from its municipal separate storm sewer system (MS4). This permit, which is effective until February 28, 2012, imposes certain requirements on the Town in order for it to remain in compliance with the Phase II stormwater rules. This plan outlines a course of action to guide the Town as it initiates the Phase II program, including possible resources for technical, educational and financial assistance, as well as recommendations for staffing and financing the implementation of the various permit requirements. This plan is arranged by the required actions by permit year (1-5) and by subject area as outlined in the permit.

## YEAR 1

### Education and Outreach Best Management Practices

#### 1. Identify target pollutants and target pollutant sources.

**Measurable Goals:** Identify the target pollutant sources the permittee's public education program is designed to address and why they are an issue.

**Commentary:** This best management practice (BMP) is meant to help the Town to begin thinking about the most prevalent sources of water pollution in the community, and focus the public education program on those pollutants and pollution sources. Examples of pollution sources that are common to most towns are the excessive use of nitrogen and phosphorus based fertilizers on lawns, pet waste, malfunctioning septic systems, the improper disposal of household cleaning agents and the improper disposal of motor oil. These are just a few examples of common pollutants, and the Town may have others that are not listed here. Identifying them is the first step in educating the public about how to help contribute to maintaining good water quality.

**Implementation Resources:** The Town's consulting engineer, or another engineering firm that specializes in stormwater should be able to provide the Town with information on this subject and assist in identifying target pollutants and pollution sources.

## 2. Identify target audiences.

**Measurable Goals:** Identify the target audiences likely to have significant storm water impacts and why they were selected.

**Commentary:** For this BMP the Town needs to identify persons who are likely to have impacts on stormwater in Navassa. Examples of target audiences are persons in the construction industry, businesses, pet owners, and landscaping contractors. This list is certainly not exhaustive of the possible target audiences in Town, and careful consideration should be given as to whom the Town feels can benefit the most from its public education and outreach program. While developing the list of target audiences, careful consideration should be given to the correlation between the target pollutants and pollution sources and the audiences that the Town identifies for its education and outreach campaign.

## 3. Develop an Informational Website.

**Measurable Goals:** Promote and maintain an internet web site. Examples include, but are not limited to: post newsletter articles on stormwater, information on water quality, stormwater projects and activities, and ways to contact stormwater management program staff.

**Commentary:** Many excellent websites have already been created by other towns that are in the Phase II program, and so there are numerous examples easily available to guide the Town as it begins developing its web page. Since the Town already maintains its own website it should be able to achieve this goal rather quickly.

**Implementation Resources:** A good website that was developed by the Piedmont Triad Council of Governments can be found at [www.stormwatersmart.org](http://www.stormwatersmart.org), and many municipalities in North Carolina also maintain stormwater pages that can be used as examples. The State also maintains a website at [www.ncstormwater.org](http://www.ncstormwater.org) that can provide material for assisting in the development of the website.

## 4. Establish a public education and outreach program and implement it within 12 months of the permit issue date.

**Measurable Goals:** Annually from years one through five the following actions must be completed. Include at least two of the following in the outreach campaign: newspaper articles, kiosks and signage, targeted direct mail, point of purchase displays, and utility bill inserts. Include at least two of the following in the outreach campaign: public meetings, community events, contests, storm drain marking, stream or litter cleanups, and group presentations. Include at least three of the following in the

outreach campaign: news coverage, workshops and classroom outreach, distributing promotional items, develop and distribute brochures, pamphlets, and welcome packets, local cable access ads, and newsletters. For each event or program that is completed, a full accounting of the scope of the exposure and participation needs to be made.

**Commentary:** This is one of the requirements of the permit that is required in each year of the permit, so establishing a good program in the first year will make it easier to continue the established actions throughout each year of the permit. Of the items in the first section of this BMP it is recommended that the two required items that the Town implement are the newspaper articles and utility bill inserts. A call to a reporter with the Star News or a local Brunswick County newspaper during the first year to invite them to discuss the Town's stormwater program and publish an article would be a good first step. Utility bill inserts can be made and included bi-annually with water and sewer bills to inform the residents of Navassa about the Town's stormwater program and stormwater issues in the community. The two items in the second section of the BMP that are recommended are public meetings and stream and litter cleanups. Public informational meetings about the Town's stormwater program can be held in conjunction with regular Town meetings and the NCDOT holds bi-annual litter sweeps that the Town can participate in. The three items that are recommended for the Town to implement in the third part of this BMP are newsletters, workshops, and news coverage. The Town can easily develop an annual newsletter that includes information about the Town's stormwater program to distribute to Town residents and make available at Town Hall. Workshops can be held at Town Hall and representatives of the State stormwater program with NC DENR or leaders of local environmental groups can be invited to lead discussions about local stormwater issues. For each event that the Town holds, local news outlets can be notified and invited to attend and report on the Town's activities to satisfy the requirement for news coverage.

**Implementation Resources:** For newspaper articles, the Wilmington Star News and the State Port Pilot would probably both be willing to give the Town some coverage about its stormwater program. Utility bill inserts can be produced by the Town and modeled on inserts that are done by other local governments. The NCDOT will provide the Town with supplies for conducting litter sweeps during the two annual sweeps that it sponsors. Newsletters can be generated by Town staff for inclusion in utility bills. Representatives of the Cape Fear River Watch, the Sierra Club, and NC DENR can be utilized to hold public workshops and present information at public meetings. Local TV and radio stations as well as local newspapers can all be asked to provide news coverage of the Town's stormwater program.

## **Public Involvement and Participation Best Management Practices**

### **1. Administer a public involvement program.**

**Measurable Goals:** Develop and implement a public involvement program based on the requirements of the permit.

**Commentary:** This BMP is a broad requirement that essentially requires the Town to administer a public involvement and participation program as outlined in the permit.

**Implementation Resources:** Town staff and elected officials will spearhead this program, and should look to local residents to assist the effort by serving on a stormwater advisory committee. DCA staff or other outside consultants, such as the Cape Fear Council of Governments, may be available to advise the Town on the organizational aspects of this program as well.

## **2. Allow the public an opportunity to review and comment on the stormwater plan.**

**Measurable Goals:** Conduct at least one public meeting to allow the public to provide input and comments on the Town's stormwater plan.

**Commentary:** This is a fairly straightforward requirement that can easily be accomplished. Time can be allotted at a future Town meeting to allow public comment on the stormwater plan.

**Implementation Resources:** Town staff and elected officials will be responsible for carrying this out. DCA staff or outside consultants, such as the Cape Fear Council of Governments, as well as the Town's consulting engineer may be available to attend the meeting to assist with answering questions from the public about the program.

## **3. Organize a volunteer community involvement program.**

**Measurable Goals:** Organize and implement a volunteer stormwater related program designed to promote ongoing citizen participation. Examples include, sponsoring and participating in the "Big Sweep", forming partnerships with local businesses, adopt a stream, adopt a street, promoting volunteer presentations, creek crawls, storm drain stenciling, and poster contests.

**Commentary:** This can be achieved by continuing the Town's adopt a street program and by organizing bi-annual litter sweeps in conjunction with the NCDOT.

**Implementation Resources:** Town staff will continue to administer the existing adopt a street program and organize the bi-annual litter sweeps with supplies and advertising assistance from the NCDOT.

#### 4. Establish a mechanism for public involvement.

**Measurable Goals:** Established mechanisms for public involvement, for example, a citizens' or stakeholders' group(s) that provide input on stormwater issues and the stormwater program.

**Commentary:** This can be achieved by either forming a new stormwater advisory committee that will make recommendations and provide input to the Town Board on stormwater issues, or the Planning Board can be given the additional task as serving as a stormwater committee.

**Implementation Resources:** DCA staff, or possibly representatives from the Cape Fear Council of Governments, can assist with the establishment of this committee and recommend its structure and functions. The Town Board will be required to adopt an ordinance organizing the committee and appointing its members. Town staff can serve as staff to the committee.

## YEAR 2

### Education and Outreach Best Management Practices

#### 1. Develop and distribute public education materials to targeted groups, such as homeowners, schools and businesses.

**Measurable Goals:** Develop and distribute general stormwater educational material to appropriate target groups as likely to have a significant stormwater impact. Instead of developing its own materials, the permittee may rely on State-supplied public education and outreach materials, as available, when implementing its own program.

**Commentary:** The Town should look to partner with the Brunswick County School System to achieve a portion of this requirement. The Town can distribute materials to local schools for use in earth science education lessons related to stormwater. Educational materials targeted to adults can also be distributed in utility bills informing homeowners on how to prevent stormwater pollution from activities that they conduct on their property such as changing motor oil and fertilizing lawns.

**Implementation Resources:** An online toolkit to assist in the development of these materials, as well as other aspects of the stormwater program is located at [www.ncstormwater.org](http://www.ncstormwater.org).

**2. Establish a public education and outreach program and implement it within 12 months of the permit issue date.**

**Measurable Goals:** Annually from years one through five the following actions must be completed. Include at least two of the following in the outreach campaign: newspaper articles, kiosks and signage, targeted direct mail, point of purchase displays, and utility bill inserts. Include at least two of the following in the outreach campaign: public meetings, community events, contests, storm drain marking, stream or litter cleanups, and group presentations. Include at least three of the following in the outreach campaign: news coverage, workshops and classroom outreach, distributing promotional items, develop and distribute brochures, pamphlets, and welcome packets, local cable access ads, and newsletters. For each event or program that is completed, a full accounting of the scope of the exposure and participation needs to be made.

**Commentary:** This is a continuation of the requirement from the first year. Activities conducted to satisfy this requirement during the first year should be continued and repeated during the second year.

**Public Involvement and Participation Best Management Practices**

**1. Administer a public involvement program.**

**Measurable Goals:** Develop and implement a public involvement program based on the requirements of the permit.

**Commentary:** This is a continuation of the requirement from the first year. Activities conducted to satisfy this requirement during the first year should be continued and repeated during the second year.

**2. Establish a stormwater hotline / helpline.**

**Measurable Goals:** Establish and maintain a stormwater hotline / helpline.

**Commentary:** This BMP requires that the Town establish and publicize a new hotline that will allow residents to call Town Hall to discuss stormwater problems and issues.

**Implementation Resources:** The existing Town Hall phone number can be publicized as the stormwater hotline and a responsible party can be designated as the person in charge of answering calls or responding to messages left regarding stormwater issues.

## Illicit Discharge Detection and Elimination Best Management Practices

### 1. Develop a storm sewer system base map and inventory of all major stormwater outfalls.

**Measurable Goals:** Map outfall locations and stormwater drainage system components. At a minimum, components include major outfalls and receiving streams. Establish procedures to continue to identify, locate, and update a map of drainage system.

**Commentary:** This is the first component of developing a system for identifying and eliminating illicit discharges into the storm sewer system and local streams. This base map will serve as an important tool as the Town begins its program to detect and eliminate illicit discharges in the third year of the permit. Once the initial mapping is completed, a procedure that will require developers to provide construction drawings of new storm sewer lines and components should be implemented to ensure that the map is regularly updated.

**Implementation Resources:** The Town's consulting engineer should be contracted to do this project. Town staff will be responsible for ensuring that new storm sewer system components are forwarded to the engineer for inclusion in map updates.

### 2. Establish procedures to identify and eliminate failing septic systems and report sanitary sewer overflows.

**Measurable Goals:** Establish procedures to identify and report to the County Health Department failed septic systems located within the permittee's planning jurisdiction. Establish procedures to identify and report sanitary sewer overflows and sewer leaks to the system operator.

**Commentary:** This will require good coordination with the County Health Department. The Town should provide a resource to let homeowners report failing septic systems to the Town, which can then relay the location and nature of the problem to the Health Department. The Town should also explore establishing a program to assist homeowners with the cost of tying in to the sewer system if their septic system is failing. Information on grant programs should also be distributed to homeowners with failing septic systems. Contact numbers for local sewer system operators should also be included in utility bills and newsletters so that residents can report sewer spill at all hours.

**Implementation Resources:** The County Health Department can assist the Town with setting up a program to identify failing septic systems. The Town can work with the USDA, the Rural Center, and the Department of Commerce to seek funding to extend sewer lines and provide financial assistance to homeowners with failing septic systems.

## Post-Construction Site Runoff Controls Best Management Practices

### 1. Establish a post-construction stormwater management program.

**Measurable Goals:** Develop and adopt by ordinance (or similar regulatory mechanism) a program to address stormwater runoff from new development and redevelopment. Implement and enforce the program within 24 months of the permit issue date.

**Commentary:** This will require the Town to adopt a post-construction stormwater ordinance. This will establish a set of rules that will require developers to construct stormwater detention ponds or similar structures and conveyances to ensure that post-construction stormwater runoff does not impair local water quality. A model ordinance, which was prepared by UNC is available to the Town and can be modified and adopted within the specified time frame.

**Implementation Resources:** The Town can work with its consulting engineer and attorney to modify and adopt the model ordinance that the State has developed.

### 2. Establish strategies which include BMPs appropriate for the MS4.

**Measurable Goals:** Develop strategies that include a combination of structural and/or non-structural BMPs. Implement them within 24 months of the permit issue date. Provide a mechanism to require long-term operation and maintenance of structural BMPs. Require annual inspection reports of permitted structural BMPs performed by a qualified professional.

**Commentary:** During the development of the post-construction stormwater ordinance, the Town, with its consulting engineer, should identify the structural and nonstructural BMPs that are most appropriate for use in the Town's jurisdiction. The ordinance should also require a maintenance plan and bonding of the improvements to ensure their maintenance. The Town should also include language in the ordinance that provides for annual inspections of BMPs by consultants hired by the Town.

**Implementation Resources:** The Town's consulting engineer can assist with this requirement during the modification of the stormwater ordinance.

### **3. Establish a program to control the sources of fecal coliform to the maximum extent practicable.**

**Measurable Goals:** Control the known sources of fecal coliform to the maximum extent practicable. Coordinate with the County Health Department to ensure proper operation and maintenance of on-site wastewater treatment systems for domestic wastewater. Implement within 24 months of the permit issue date.

**Commentary:** This BMP requires that the Town identify all existing on-site wastewater treatment systems (septic systems) within its jurisdiction and establish a program for controlling discharges of fecal coliform bacteria from them. This should be carried out in conjunction with the requirement to eliminate failing septic systems.

**Implementation Resources:** The County Health Department can assist the Town with this effort.

### **4. Impose or require deed restrictions and protective covenants for BMP maintenance.**

**Measurable Goals:** Impose or require recorded deed restrictions and protective covenants that ensure development activities will maintain the project consistent with approved plans.

**Commentary:** The requirement for restrictive covenants should be written into the stormwater ordinance. The ordinance should contain language that requires the property owners to comply with the permit that is issued by the Town at the time of development and maintain the structural and nonstructural BMPs in accordance with their approved management plans, including long term financial funding of maintenance activities.

**Implementation Resources:** The Town's attorney can assist with this requirement while modifying the model stormwater ordinance.

### **5. Setbacks for built-upon areas.**

**Measurable Goals:** Require built-upon areas to be located at least 30 feet landward of all perennial and intermittent surface waters. For purposes of this section, a surface water shall be present if the feature is shown on either the most recent version of the soil survey map prepared by the Natural Resources Conservation Service of the United States Department of Agriculture (USDA) or the most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geologic Survey (USGS). Relief from this requirement may be allowed when surface waters are not present in accordance with the provisions of 15A NCAC 02B .0233(3)(a).

**Commentary:** This requirement can be achieved through the stormwater ordinance. Once the ordinance is adopted no new built-upon area will be allowed within 30 feet of any perennial or intermittent stream within the Town's jurisdiction. Site plans and zoning permit applications for property containing or adjacent to a stream subject to the ordinance will have to identify the location of any streams on the property and the location of new built-upon area in relation to the stream to ensure that there is no encroachment into the required 30-foot buffer.

**Implementation Resources:** Once enacted this requirement will be enforced by the Town's zoning administrator. The Town's consulting engineer can assist with mapping the streams covered by the ordinance and furnish the Town with maps to assist in the enforcement of the buffer requirements.

## **Pollution Prevention and Good Housekeeping for Municipal Operations**

### **1. Develop an operations and maintenance program.**

**Measurable Goals:** Develop an operation and maintenance program for structural stormwater BMPs and storm sewer system maintenance including, but not limited to, street sweeping, and municipal operations such as loose leaf collection, recycling and household hazardous waste and oil collection.

**Commentary:** To meet the requirements of this BMP the Town will need to establish an annual maintenance and operations plan for its MS4, including any structural BMPs that it may install in the future. Standard procedures and a regular maintenance schedule will need to be established for cleaning storm sewers, curb inlets, catch basins, and ditches on Town maintained roads. Town roads that have curb and gutter should be scheduled for regular street sweeping, perhaps utilizing resources from a neighboring municipality such as Wilmington. If loose yard debris is picked up from residential customers, this will need to be written into the plan as well. The Town should also explore the possibility of establishing a quarterly or semi-annual household hazardous waste collection event so that residents can have the opportunity to dispose of these items properly.

**Implementation Resources:** It is possible that the City of Wilmington or another municipality can provide technical assistance with developing an operations and maintenance plan for the MS4, and may be able to provide resources for street sweeping. Brunswick County's Sanitation Department may be able to assist with establishing a household hazardous waste program for the Town.

## 2. Conduct staff training.

**Measurable Goals:** Conduct staff training specific for pollution prevention and good housekeeping procedures.

**Commentary:** This BMP requires the Town to provide training to its staff on pollution prevention measures. All employees that deal with hazardous materials or who have duties that include activities that could contribute to water pollution should be required to attend training. Activities to focus on during training should include the proper storage and disposal of hazardous materials, proper procedures for reacting to a hazardous material spill, proper procedures for performing maintenance on Town equipment and property to minimize stormwater pollution, and other related subjects.

**Implementation Resources:** NC DENR and County agencies that deal with hazardous waste may be able to provide training to Town staff.

## 3. Spill response procedures.

**Measurable Goals:** Establish spill response procedures for municipal operations owned and operated by the permittee with the potential to generate polluted stormwater runoff.

**Commentary:** This requires that the Town inventory the type and location of all potential pollutants that may accidentally enter the stormwater system. Examples include Town owned sewer lines and pump stations, hazardous material storage areas, and other sources of potential water pollution. Once all have been identified, the Town will have to establish written procedures for Town employees to follow in the event of a spill, including containment, notification of responsible parties, cleanup and remediation.

**Implementation Resources:** NC DENR should be able to assist the Town with the development of a spill response plan.

## 4. Prevent or minimize contamination of stormwater runoff from all areas used for vehicle or equipment cleaning.

**Measurable Goals:** Describe measures that prevent or minimize contamination of the stormwater runoff from all areas used for vehicle and equipment cleaning. Perform all cleaning operations indoors, cover the cleaning operations, ensure that wash water drains to the sanitary sewer system, collect stormwater runoff from the cleaning area and provide treatment or recycling, or other equivalent measures. If sanitary sewer is not available to the facility and cleaning operations take place outdoors, the cleaning operations shall take place on grassed or graveled areas to prevent point source discharges of the wash water into the storm drains or surface waters. Where cleaning operations cannot be performed as described above and when operations are

performed in the vicinity of a storm drainage collection system, the drain is to be covered with a portable drain cover during cleaning activities. Any excess ponded water shall be removed and properly handled prior to removing the drain cover. The point source discharge of vehicle and equipment wash waters, including tank cleaning operations, are not authorized by this permit and must be covered under a separate NPDES permit or discharged to a sanitary sewer in accordance with applicable industrial pretreatment requirements.

**Commentary:** This BMP requires that any washing or cleaning of Town equipment or vehicles conducted on Town property be conducted in a manner that does not impact water quality. All Town equipment and vehicles must be washed or cleaned either indoors, on grass or gravel areas outdoors, or at a washing facility that collects wash water and discharges it into a sanitary sewer system. When conducting washing or cleaning of vehicles or equipment in an area that drains into the MS4 portable drain covers must be used as well.

## YEAR 3

### Education and Outreach Best Management Practices

#### 1. Media campaign.

**Measurable Goals:** Document campaign outreach and frequency to public for each broadcast media like radio and TV, (including those elements implemented locally or through a cooperative agreement).

**Commentary:** This BMP can best be achieved by the Town by utilizing the assistance of local radio stations to broadcast public service announcements for the Town. The Town should approach local radio stations that are in the best position to reach the Town's population for this service. The Town can work with production staff at local radio stations to develop a series of 30 second messages that encourages citizens to help preserve water quality and prevent stormwater runoff pollution. The radio stations can provide listenership statistics to help with the Town's reporting requirements for this BMP.

**Implementation Resources:** Local radio stations and communications consultants can provide assistance with this requirement. Radio stations will often grant local governments airtime for free or at a very low rate to air public service announcements.

## **2. Establish hotline / helpline.**

**Measurable Goals:** Maintain a stormwater hotline / helpline.

**Commentary:** This goal will already have been completed in year 2 of the permit due to an identical goal in the Public Involvement and Participation BMPs for that year. All that the Town needs to do is document the continued existence and maintenance of the hotline / helpline from year 3 forward.

**Implementation Resources:** Utilize stormwater hotline /helpline established in year 2.

## **3. Establish a public education and outreach program and implement it within 12 months of the permit issue date.**

**Measurable Goals:** Annually from years one through five the following actions must be completed. Include at least two of the following in the outreach campaign: newspaper articles, kiosks and signage, targeted direct mail, point of purchase displays, and utility bill inserts. Include at least two of the following in the outreach campaign: public meetings, community events, contests, storm drain marking, stream or litter cleanups, and group presentations. Include at least three of the following in the outreach campaign: news coverage, workshops and classroom outreach, distributing promotional items, develop and distribute brochures, pamphlets, and welcome packets, local cable access ads, and newsletters. For each event or program that is completed, a full accounting of the scope of the exposure and participation needs to be made.

**Commentary:** This is a continuation of the requirement from the first year. Activities conducted to satisfy this requirement during the first two years should be continued and repeated during the third year.

## **Illicit Discharge Detection and Elimination Best Management Practices**

### **1. Develop and implement an illicit discharge detection and elimination program.**

**Measurable Goals:** Develop and implement an illicit discharge detection and elimination program including provisions for program assessment and evaluation.

**Commentary:** This BMP will require that the Town develop its own program for detecting and eliminating illicit discharges into the MS4. Because of limited staff availability for this requirement it is recommended that the Town contract with an outside firm, such as an environmental engineering firm or perhaps the City of Wilmington, to conduct periodic inspections and respond to

complaints forwarded to it by the Town when an illicit discharge is detected. The Town's staff, and ultimately the Town attorney will be responsible for notifying violators and abating the illicit discharges. The Town Code will likely need to be amended to provide for remedies and penalties for persons who are found to be illicitly discharging pollutants into the MS4.

**Implementation Resources:** The Town can contract with an outside firm to provide this service and the Town's consulting engineer may be able to assist with finding a qualified contractor. The Town's attorney can research other local ordinances to develop an illicit discharge ordinance for the Town. NC DENR's water quality section may also be able to provide some resources.

## **2. Establish and maintain appropriate legal authorities.**

**Measurable Goals:** Establish and maintain adequate ordinances or other legal authorities to prohibit illicit discharges and enforce the approved illicit discharge detection and elimination program.

**Commentary:** This requirement ties in with the previous BMP. Essentially, the Town must adopt ordinances to prohibit the illicit discharge of pollutants into the MS4.

**Implementation Resources:** Many municipalities in North Carolina have ordinances like this in place that can be modified for the Town's needs.

## **3. Inspection and detection program to identify dry weather flows at MS4 outfalls.**

**Measurable Goals:** Establish written procedures for detecting and tracing the sources of illicit discharges and for removing the sources. Establish written procedures for identification of priority areas likely to have illicit discharges.

**Commentary:** This BMP should be tied in with the requirement to establish an illicit discharge detection and elimination program. This should be a part of the Town's agreement with the firm or agency that it chooses for its overall program for illicit discharge detection, and can be conducted as part of the overall contract for these services.

**Implementation Resources:** This activity can be conducted by the firm or agency that is responsible for the Town's overall illicit discharge detection program.

#### 4. Employee training.

**Measurable Goals:** Conduct training for appropriate municipal staff on detecting and reporting illicit discharges.

**Commentary:** This requires that Town employees whose normal duties place them in situations where they may come across illicit discharges of pollutants into the MS4 be trained to recognize and report them. The firm or agency that manages the overall illicit discharge detection program for the Town will be able to provide training for the relevant employees, and reporting procedures when an employee suspects an illicit discharge can be established.

**Implementation Resources:** The firm or agency that manages the Town's illicit discharge detection program can provide this training to Town staff.

### Pollution Prevention and Good Housekeeping for Municipal Operations

#### 1. Develop site pollution prevention plan for municipal facilities.

**Measurable Goals:** Develop and implement a site pollution prevention plan for municipal facilities owned and operated by the permittee with the potential for generating polluted stormwater runoff that has the ultimate goal of preventing or reducing pollutant runoff

**Commentary:** This will require that the Town develop a plan to prevent the introduction of pollutants into the MS4. The Town's consulting engineer can prepare an assessment of the potential for stormwater pollution that may be created on Town owned property and develop appropriate plans for mitigating the potential pollution through a variety of structural or nonstructural BMPs.

**Implementation Resources:** This can be completed by the Town's consulting engineer or another environmental engineering firm.

#### 2. Review of regulated industrial activities owned or operated by the Town.

**Measurable Goals:** Conduct annual reviews of the industrial activities with a Phase I NPDES stormwater permit owned and operated by the permittee. Review the following aspects: the stormwater pollution prevention plan where one is required, the

timeliness of any monitoring reports required by the Phase I permit, and the results of inspections and subsequent follow-up actions at the facilities.

**Commentary:** This requires the Town to review any activity for which it currently holds a Phase I NPDES permit. If the Town has any of these regulated industrial activities that it holds a permit for, then the Town's engineer can conduct these annual assessments.

**Implementation Resources:** This activity can be conducted by the Town's consulting engineer.

## YEAR 4

### Education and Outreach Best Management Practices

#### 1. Establish a public education and outreach program and implement it within 12 months of the permit issue date.

**Measurable Goals:** Annually from years one through five the following actions must be completed. Include at least two of the following in the outreach campaign: newspaper articles, kiosks and signage, targeted direct mail, point of purchase displays, and utility bill inserts. Include at least two of the following in the outreach campaign: public meetings, community events, contests, storm drain marking, stream or litter cleanups, and group presentations. Include at least three of the following in the outreach campaign: news coverage, workshops and classroom outreach, distributing promotional items, develop and distribute brochures, pamphlets, and welcome packets, local cable access ads, and newsletters. For each event or program that is completed, a full accounting of the scope of the exposure and participation needs to be made.

**Commentary:** This is a continuation of the requirement from the first year. Activities conducted to satisfy this requirement during the first three years should be continued and repeated during the fourth year.

### Illicit Discharge Detection and Elimination Best Management Practices

#### 1. Provide public education.

**Measurable Goals:** Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.

**Commentary:** This BMP can be accomplished by including information on the harmful effects of illicitly discharging pollutants into the MS4 in the Town's stormwater newsletter, website, and by having a guest speaker from a local environmental group or State agency discuss this issue at a public meeting.

**Implementation Resources:** NC DENR and local environmental groups can assist with this requirement.

## **2. Establish a public reporting mechanism.**

**Measurable Goals:** Establish and publicize reporting mechanisms for the public to report illicit discharges. Establish citizen request response procedures.

**Commentary:** The mechanism for reporting illicit discharges can be publicized in conjunction with citizen education about the harmful effects of illicitly discharging pollutants into the MS4. The stormwater hotline / helpline that will be established in the previous years can be used as the reporting mechanism. If citizens request follow-ups on reports that they make, a Town employee should be designated to keep the citizen informed on the status of their complaint.

**Implementation Resources:** The existing stormwater hotline / helpline can be used for taking citizen complaints about illicit discharges and the Town's stormwater newsletter can be used to publicize the number of the stormwater hotline.

## **Pollution Prevention and Good Housekeeping for Municipal Operations**

### **1. Inspection and evaluation of facilities, operations, and the MS4 system and associated structural BMPs.**

**Measurable Goals:** Maintain an inventory of facilities and operations owned and operated by the permittee with the potential for generating polluted stormwater runoff, including the MS4 system and associated structural BMPs. Conduct inspections at facilities and operations owned and operated by the permittee for potential sources of polluted runoff, the stormwater controls, and conveyance systems. Evaluate the sources, document deficiencies, plan corrective actions, implement appropriate controls, and document the accomplishment of corrective actions.

**Commentary:** This will require the Town to perform an inventory and assessment of Town owned property, including the MS4, to determine whether Town facilities are contributing to stormwater pollution. If deficiencies are found in the construction or

operation of Town facilities that increase their likelihood of negatively impacting the quality of stormwater runoff, a plan to correct those deficiencies must be developed and carried out to correct them.

**Implementation Resources:** The Town's consulting engineer or an environmental engineering firm can assist the Town with the assessment and inventory, and can develop plans to correct any deficiencies that are found.

## YEAR 5

### Education and Outreach Best Management Practices

#### 1. Establish a public education and outreach program and implement it within 12 months of the permit issue date.

**Measurable Goals:** Annually from years one through five the following actions must be completed. Include at least two of the following in the outreach campaign: newspaper articles, kiosks and signage, targeted direct mail, point of purchase displays, and utility bill inserts. Include at least two of the following in the outreach campaign: public meetings, community events, contests, storm drain marking, stream or litter cleanups, and group presentations. Include at least three of the following in the outreach campaign: news coverage, workshops and classroom outreach, distributing promotional items, develop and distribute brochures, pamphlets, and welcome packets, local cable access ads, and newsletters. For each event or program that is completed, a full accounting of the scope of the exposure and participation needs to be made.

**Commentary:** This is a continuation of the requirement from the first year. Activities conducted to satisfy this requirement during the first four years should be continued and repeated during the fifth year.

### Post-Construction Site Runoff Controls Best Management Practices

#### 1. Operation and maintenance plan.

**Measurable Goals:** Implement or require an operation and maintenance plan that ensures the adequate long-term operation of the structural BMPs required by the program. The operation and maintenance plan must require the owner of each structural BMP to submit a maintenance inspection report on each structural BMP annually to the local program.

**Commentary:** This requirement should be implemented at the time that the post-construction ordinance is adopted to avoid having to add an additional requirement after many structural BMPs may have been constructed, and to ensure that all structural BMPs in the Town's jurisdiction are adequately maintained throughout their lifespan. The Town's consulting engineer can assist the Town with the implementation of this requirement and can review annual maintenance logs for completeness and conformity with the approved maintenance plan for each BMP.

**Implementation Resources:** The Town's consulting engineer can assist with the implementation of this program, and the model ordinance can be modified to ensure that such requirements are contained in it at the time it is adopted.

## **Water Quality Recovery Program**

The Town's permit includes a requirement to establish a water quality recovery program, and a number of BMPs are included in this section of the permit for the Town to complete. The permit states that the Town shall establish a water quality recovery program within 12 months of the permit's effective date or upon becoming subject to a total maximum daily load (TMDL) standard. It is recommended that the Town receive further clarification from the DWQ on what will actually be required, since at this time there has been no TMDL established for the Town. The Town's consulting engineer should contact DWQ as soon as possible to establish the State's expectations with regard to this program and seek guidance on establishing a program as set forth by the permit.