



**GUIDANCE FOR LOCAL GOVERNMENTS PREPARING
STAGE ONE ADAPTIVE MANAGEMENT PROGRAMS
FOR EXISTING DEVELOPMENT
PURSUANT TO
SESSION LAW 2009-216
“JORDAN RULES”**

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DEVELOPMENT**

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STAGE I ADAPTIVE MANAGEMENT PROGRAMS FOR EXISTING DEVELOPMENT

Introduction

This guidance is intended to assist local governments in implementing their Stage I adaptive management programs. The 2009 session of the General Assembly produced Session Law 2009-216, which was signed by the Governor and effective as of June 30, 2009. The Session Law replaces the original Jordan Water Supply Nutrient Strategy: Stormwater Management for Existing Development Rule (15A NCAC 02B .0266) that was approved by the EMC and the RRC and sent to the General Assembly. Session Law 2009-216 requires local governments develop and submit a Stage 1 adaptive management program to the NC Environmental Management Commission (EMC) to address existing development in their jurisdiction by Dec. 31, 2009. The Division of Water Quality (DWQ) will have six months to review the local programs and provide recommendations to the EMC for approval or disapproval. If the EMC approves the local programs, local governments have three months to begin implementing their Stage 1 programs. If the Commission requires changes to the Stage 1 adaptive management programs, the local governments will re-submit revisions to the program to the EMC within two months, and DWQ will provide recommendations to the EMC within two months of the local government's re-submittal.

Requirements

In addition to submitting a completed general information sheet (Appendix A), the following measures are required in the local government's Stage 1 adaptive management programs for existing development:

1. A public education program to inform the public of the impacts of nutrient loading and measures that can be implemented to reduce nutrient loading from stormwater runoff.
2. A mapping program that includes major components of the municipal separate storm sewer system, including the location of major outfalls, as defined in 40 Code of Federal Regulations §122.26(b)(5) (July 1, 2008) and the names and location of all waters of the United States that receive discharges from those outfalls, land use types, and location of sanitary sewers.
3. A program to identify and remove illegal discharges.
4. A program to ensure maintenance of best management practices implemented by the local government.
5. A program to identify opportunities for retrofits and other projects to reduce nutrient loading from existing developed lands.

Phase II Stormwater Programs

As stated in the Session Law, the Department will accept local government implementation of other stormwater program or programs in meeting the Stage 1 standards. Measures 1-4 are required by NC NPDES Phase II stormwater permits. Therefore, Phase II communities will only have to submit a general information sheet (Appendix A), provide their Phase II permit number, and submit a program for measure five, the identification of retrofit opportunities and other load-reducing measures from existing development. More information on the first four measures can be found at the following website: <http://www.bae.ncsu.edu/topic/phase2/>.

Best Management Practices (BMPs)

Local government must identify and submit to the Department a Table (see Appendix B) of the best management practices ("BMPs") that will be implemented for each measure, the measurable goals for the development and implementation of each BMP, and, as appropriate, the months and years in which the local government will undertake actions required to implement each of the measures. The submission also must identify the person or persons responsible for implementing or coordinating the measure. The local government may satisfy the requirement to implement one or more of the measures by having a third party implement the measure or measures.

Public Education Program

Local governments must develop and implement a public education program to inform citizens of the impacts of nutrient loading and measures that can be implemented to reduce nutrient loading from stormwater runoff. Public participation is critical to the success of such a program. The required public education program should identify:

- Objectives
- The Target Pollutant Sources
- The Target Audience
- Best Management Practices
- Outreach Strategy
- Duties and Responsibilities

Overview

Under the public education program the local government must develop and distribute educational materials to the community or conduct equivalent outreach activities. The public education program should inform individuals and households of the impacts of nutrient loading and measures that can be implemented to reduce nutrient loading from stormwater runoff.

Local governments are encouraged to partner with the State and other organizations (e.g., environmental, non-profit and industry organizations) in fulfilling the public education requirement.

A successful program is one that includes a variety of strategies designed to reach local target audiences. Examples of strategies include distributing brochures or fact sheets, sponsoring speaking engagements for community groups, providing public service announcements, implementing educational programs for schools and conducting community based projects such as storm drain stenciling and stream clean-ups. Local governments may use stormwater educational information provided by the State, EPA, local Council of Government (COG), State Universities, or environmental, public interest, trade organizations, and other local governments.

The public education program should inform individuals and households about steps they can take to reduce nutrient loading from stormwater runoff. Examples include proper septic system maintenance, proper use and disposal of gardening chemicals including fertilizers and pesticides, protection and restoration of riparian buffer vegetation and proper disposal of used motor oil and household hazardous wastes. The program should inform individuals and groups on how to become involved in local stream restoration activities, as well as activities coordinated by youth service and conservation corps and other citizen groups. In addition to the general public, materials or outreach programs should target a variety of other groups such as commercial, industrial and institutional entities likely to have significant stormwater impacts.

Public involvement is an integral part of a local government's stormwater education program. There are two important reasons why the public should be allowed and encouraged to provide valuable input and assistance to the local government's program.

1. Early and frequent public involvement can shorten implementation schedules and broaden public support for a program. Opportunities for the public to participate in program development and implementation could include serving as citizen representatives on a local stormwater management panel, working as citizen volunteers to educate other individuals about the program, assisting in program coordination with existing programs or participating in volunteer monitoring efforts.
2. Public participation is likely to ensure a more successful stormwater program overall by providing valuable experience and a conduit to other programs. This is particularly important if the local government's stormwater program is to be implemented on a watershed basis. Interested stakeholders may offer to volunteer in the implementation of all aspects of the program, conserving limited resources.

Objectives

The first component should be a statement of objectives. Objectives help to explain why any given task to be completed is important. Establishing the objectives of a procedure also allows for periodic evaluations to identify any activities that are no longer essential or needed. At a minimum, the objective of the local government's public education program is to inform the public of the impacts of nutrient loading and measures that can be implemented to reduce nutrient loading from stormwater runoff.

Target Pollutant Sources

Stormwater programs should be designed to address the specific needs of the community and water resources they are intended to protect. If you haven't done so already, collect information on your local government's receiving waters and nutrient sources that are impacting those waters. You should also know the various uses of your receiving waters so that you can design a program to protect those uses. Begin by identifying the names and locations of the receiving waters within your local government's jurisdiction. Make an assessment of the stormwater conveyance system. Get copies of maps, inventories, or other assessments of the physical infrastructure in place, inventory of stormwater inlets, pipes, ditches, and open channels, major outfalls and nutrient sources (industrial, commercial and residential).

Target Audience

Explain the various target audiences for your public education and outreach program. Target audiences should be those likely to have significant stormwater impacts (including commercial, industrial and institutional entities). Describe why those target audiences were selected.

Identify stakeholders who can help you develop and implement your stormwater program. These can include people who are impacted by city ordinances, concerned citizens and groups who would be expected to pay for stormwater management (as part of a stormwater utility, for example).

Best Management Practices (BMPs)

Identify specific best management practices (BMPs) to meet the objectives of the Public Education and Outreach Program, including:

- Develop and maintain a web site. Post newsletter articles on stormwater, information on water quality, stormwater projects and activities, and ways to contact stormwater management program staff.
- Develop general stormwater educational material targeting school children, homeowners, and/or businesses.
- Event participation with educational displays at home shows and community festivals.
- Distribute written material through utility mailings, at special events and at high-traffic businesses.
- Tributary signage to increase public awareness of local water resources.

Instead of developing new materials, local governments may use stormwater educational information provided by the state stormwater education programs (<http://www.ncstormwater.org/>), other governmental entities and non-governmental organizations. Examples of currently available resources include:

- Brochures and fact sheets for general public and specific audiences.
- Recreational guides for groups such as golfers, hikers, paddlers, fishermen and campers.
- Alternative information sources, such as Web sites, bumper stickers, refrigerator magnets, posters for bus stops and restaurant placemats.
- Educational materials for community and school groups.
- Volunteer citizen educators; visit <http://www.eenorthcarolina.org/> to learn more.
- Educational programs and curriculum for school-age children.
- Stencils for local storm drain stenciling activities with messages such as "Do Not Dump - Drains Directly to Lake."
- Information on stormwater hotline(s) for citizens to report polluters.
- Economic incentives to citizens and businesses (e.g., rebates to homeowners purchasing mulching lawnmowers or biodegradable lawn products); and

Outreach Strategy

Describe your outreach strategy, including the mechanisms (e.g., printed brochures, newspapers, media, workshops, etc.) you will use to reach your target audiences. Explain how you plan to inform individuals and households about the steps they can take to reduce stormwater pollution and how you plan to inform individuals and groups on how to become involved in the stormwater program through public participation activities.

Develop a calendar or schedule of education and outreach projects and how many people you expect to with each project. The schedule should include an indication of when specific tasks and activities must be conducted. The schedule should include all tasks and activities that are required to be conducted daily, weekly, monthly, or

annually. For some requirements, the frequency of an activity will depend on unscheduled incidents (i.e., a storm event or release). The sequence of activities must be clearly described in the schedule section of a procedure.

The outreach strategy, including those elements implemented locally or through a cooperative agreement, must include at least **two** of the following:

- Newspaper articles and/or inserts
- Kiosks and signage
- Direct mail
- Displays at the point-of-purchase in retail centers
- Utility bill inserts

The outreach program, including those elements implemented locally or through a cooperative agreement, must include at least **two** of the following:

- Public meetings
- Community events
- Contest
- Storm drain marking
- Stream and Litter cleanups
- Group presentation and/or speeches

The outreach program, including those elements implemented locally or through a cooperative agreement (e.g., Council of Government), must include at least **two** of the following:

- News coverage
- Workshops and classroom outreach
- Distributing promotional giveaways and specialty items
- Brochures, displays, signs, welcome packets and pamphlets
- Local cable access
- Newsletters

For each media event or outreach activity, including those elements implemented locally or through a cooperative agreement, record data to measure the extent of exposure by your target audience.

Public Participation

The local government must provide opportunities for the public to participate in program development and implementation. The local government can hold public meetings, organize and implement a volunteer stormwater-related program designed to promote citizen participation, establish citizens' groups and hold a coordination meeting involving regulatory agencies and/or interested stakeholders.

Duties and Responsibilities

Specific duties and responsibilities should be developed. Task performance may be designated in the job description or may be inherent in the job title. Individuals that will be responsible for the implementation and management of each educational BMP should be identified. These personnel may be supervisory or middle level management, professionals, compliance coordinators or operators. All individuals who have job duties that are covered under or directed by a specific BMP should have their responsibilities and actions identified.

Mapping Program

Local governments must map or identify major components of the storm sewer system, including the location of major outfalls, the names and location of all waters that receive discharges from those outfalls, land use types, and location of sanitary sewers. In addition to "providing a map of all major stormwater outfalls," describe how the local government will develop a storm sewer map showing the location of all outfalls and the names and location of all receiving waters. Describe the sources of information for the maps, and how you plan to verify the outfall

locations. If already completed, describe how the map will be regularly updated. Private or state-owned storm sewer systems do not need to be included in the map.

Major municipal separate storm sewer outfall (or "major outfall") means a municipal separate storm sewer outfall that discharges from a single pipe with an inside diameter of 36 inches or more or its equivalent (discharge from a single conveyance other than circular pipe which is associated with a drainage area of more than 50 acres); or for municipal separate storm sewers that receive stormwater from lands zoned for industrial activity (based on comprehensive zoning plans or the equivalent), an outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent (discharge from other than a circular pipe associated with a drainage area of 2 acres or more).

Identify and Remove Illegal Discharges

The local government must develop, implement and enforce a program to identify and remove illegal discharges. Include the following information to explain the local government's program:

- Provide a table that summarizes what BMP will be used, the frequency of the BMP, the measurable goals for each BMP, the implementation schedule, and the responsible person or position for implementation. An example BMP summary table is provided in Appendix B.
- Describe the mechanism (ordinance or other regulatory mechanism) that will effectively prohibit illicit discharges. The local government must establish and maintain adequate legal authorities to prohibit illegal discharges and enforce the approved Illegal Discharge Detection and Elimination Program. If the local government does not have the legal authority to develop an enforceable ordinance to prohibit illicit discharges, their program must describe how they will rely on other entities that do have the necessary authority to prohibit illicit discharges.
- Develop written procedures for implementing and enforcing the Illegal Discharge Detection and Elimination Program including appropriate enforcement procedures and actions. Describe the steps taken for any illicit dumping discovered during these inspections including appropriate enforcement procedures.
- Describe the local government's plan to detect and address illicit discharges to your system, including discharges from illegal dumping and spills. Consider the use of BMPs such as dry weather field screening for non-stormwater flows, field tests of selected chemical parameters as indicators of discharge sources and on-site sewage disposal systems that flow into your storm drainage system. Describe the local government's procedures for locating priority areas which includes areas with higher likelihood of illicit connections (e.g., areas with older sanitary sewer lines, for example) or ambient sampling to locate impacted reaches.
- Describe the local government's procedures for tracing the source of an illicit discharge, including the specific techniques you will use to detect the location of the source.
- Describe the local government's procedures for removing the source of the illicit discharge.
- Establish and publicize a reporting mechanism for the public to report illegal discharges. Investigate and mitigate any reported illegal discharge. Describe mechanism for reporting spills and SSO's reaching storm drains or surface waters. Maintain a log of hotline calls and actions taken.
- Develop educational material and distributed to target audiences. Provide training for employees (including contractors) on illegal discharges. Inform businesses and the general public of hazards associated with illegal discharges and improper disposal of waste.

Written procedures should include: 1) Right-of-entry, 2) appropriate enforcement procedures and actions, 3) description of how the local government plans to detect and address illicit discharges to the local government's system, including discharges from illegal dumping and spills, 4) description of the inspection program designed to detect dry weather flows at system outfalls, 5) description of procedures for tracing the source of an illicit discharge, including the specific techniques local government will use to detect the location of the source, 6) description of procedures for removing the source of the illicit discharge, 7) establishing and publicizing a reporting mechanism for the public to report illicit discharges, and 8) establishing an illicit discharge management tracking system.

Address the following categories of non-stormwater discharges or flows (i.e., illicit discharges) only if you identify them as significant contributors of pollutants to your small MS4:

- water line flushing;
- landscape irrigation;
- diverted stream flows;
- rising groundwaters;
- uncontaminated groundwater infiltration;
- uncontaminated pumped groundwater;
- discharges from potable water sources;
- foundation drains;
- air conditioning condensate (commercial/residential);
- irrigation waters (does not include reclaimed water as described in 15A NCAC 2H .0200);
- springs;
- water from crawl space pumps;
- footing drains;
- lawn watering;
- residential and charity car washing;
- flows from riparian habitats and wetlands;
- dechlorinated swimming pool discharges;
- street wash water;
- flows from emergency fire fighting.

You may also develop a list of other similar occasional incidental non-stormwater discharges that will not be addressed as illicit discharges. These non-stormwater discharges must not be reasonably expected to be significant sources of pollutants, because of either the nature of the discharges or conditions you have established for allowing these discharges (e.g., activity with appropriate controls on frequency, proximity to sensitive waterbodies, BMPs).

In addition to conducting “training for selected town staff on detecting and reporting illicit discharges,” describe how you plan to inform businesses and the general public of hazards associated with illegal discharges and improper disposal of waste. Include in your description how this plan will coordinate with your public education minimum measure and your pollution prevention/good housekeeping minimum measure programs.

Best Management Practices (BMP) Maintenance Program

In order to ensure adequate long-term operation and maintenance (O&M) of BMPs, local governments must develop and implement a mechanism to require long-term O&M of BMPs owned and operated by that local government. Local governments should evaluate various O&M management agreement options. The most common options are agreements between the local government and another party such as landowners (e.g., homeowners' associations, office park owners, other government departments or entities). These agreements typically require the property owner to be responsible for the inspection and O&M and may include conditions which: allow the local government to be reimbursed for O&M performed by the local government; allow the local government to enter the property for inspection purposes; and in some cases specify that the property owner submit periodic reports.

Local government must implement maintenance activities, maintenance schedules, and long-term inspection procedures for structural and non-structural stormwater controls to reduce nutrient loading from stormwater runoff from existing development. Describe how you will ensure the long-term operation and maintenance (O&M).

Describe a training program for both employees and the general public designed to ensure adequate long-term operation and maintenance of BMPs. Describe any existing, available materials you plan to use. Describe how this training program will be coordinated with the outreach programs developed for the public information minimum measure and the illicit discharge minimum measure.

Opportunities for Retrofits and Other Projects to Reduce Nutrient Loading

Local government must develop a program to identify opportunities for retrofits and other projects to reduce nutrient loading from existing developed lands. The program must include a process to identify and prioritize

places within existing developed areas that are suitable for retrofits or other nutrient load-reducing activities. Retrofit opportunities will be considered acceptable if all of the following conditions have been investigated:

- The retrofit, if implemented, clearly has the potential to reduce nitrogen or phosphorus loading to the receiving water.
- The watershed is clearly contributing nitrogen or phosphorus loading above background levels.
- The landowner where the retrofit is proposed is willing to have the retrofit installed on his property. Securing the landowner's cooperation is one of the most important tasks for the local government, as this is often the most difficult aspect of implementing a retrofit.
- There is adequate space and access for the retrofit.
- It is technically practical to install a retrofit at that location.

The minimum number of retrofit opportunities that each local government is required to identify is based on a sliding scale according to the 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 this population. Table 1 below shows the minimum requirements for identifying retrofit opportunities to be identified on an annual basis based on local governments' population in the watershed. Sites may be carried over to meet the minimum requirements for up to two subsequent years provided that BMPs/retrofits have not been implemented and the site continues to meet the criteria above on an annual basis.

Table 1: Minimum Number of Existing Development Nutrient Load-Reducing Projects

Population in the Watershed	Minimum Number of Existing Development Load-Reducing Activities to be Identified Annually
Less than 15,000	1
15,000 - 30,000	2
30,000 - 60,000	3
60,000+	4

Data Collection and Notification

Each retrofit opportunity that is identified shall be accompanied by information to describe the location of the retrofit, the type of retrofit being proposed, the property owner, as well as basic information about the watershed and the receiving water. Table 2 shows a suggested format for presenting this information for each retrofit opportunity. The tables shall be submitted to the Division of Water Quality on December 31 of each year beginning in the year 2010 as part of the annual report. The Division will take the responsibility for posting these retrofit opportunities on its Web site and also for notifying, at a minimum, the following organizations of the opportunities for retrofitting within existing developed areas:

- Clean Water Management Trust Fund
- N.C. State University Cooperative Extension Service
- Kerr-Tar Regional Council of Governments
- Upper Coastal Plain Council of Governments
- Mid-East Commission
- Environmental programs at NCSU, Duke University, UNC, ECU and others
- N.C. Sea Grant
- USDA – Natural Resources Conservation Service
- Tar-Pamlico Basin Association
- N.C. Wetlands Restoration Program

Mapping Requirements

Local governments are required to provide maps that show the locations of retrofit opportunities. Mapping may be accomplished by using computers or with existing hard copy maps. The scale of the map should be large enough to adequately identify the following required parameters:

- Drainage area to retrofit opportunity site.
- Land uses within the drainage area.

- Location of retrofit opportunity.
- Property boundaries in the vicinity of the retrofit opportunity.
- Significant hydrography (as depicted on U.S.G.S. topographic maps and USDA-NRCS Soil Survey maps).
- Roads.
- Environmentally sensitive areas (steep slopes, wetlands, riparian buffers, endangered/ threatened species habitat – where available).
- Publicly owned parks, recreational areas and other open lands (good online resource: [One NC Naturally Conservation Planning Tool](#)).

Table 2: Retrofit Opportunity Table

Location description, including directions from a major highway	
Type and description of retrofit opportunity	
Current property owner	
Is the property owner willing to cooperate?	
Land area available for retrofit (sq. ft)	
Accessibility to retrofit site	
Drainage area size (acres)	
Land use in drainage area (percent of each type of land use)	
Average slope in drainage area (%)	
Environmentally sensitive areas in drainage area (steep slopes, wetlands, riparian buffers, endangered/ threatened	
Approximate annual nitrogen and phosphorus loading from drainage area (lbs/acre/year) *	
Potential nitrogen reduction (lbs/ac/yr)*	
Potential phosphorus reduction (lbs/ac/yr)*	
Estimated cost of retrofit	
Receiving water	
DWQ classification of receiving water	
Use support rating for receiving water	
Other important information	

**JORDAN NUTRIENT STRATEGY STAGE ONE ADAPTIVE MANAGEMENT PROGRAM
 FOR EXISTING DEVELOPMENT: GENERAL INFORMATION FORM**

This form is for use by local governments in the Jordan Lake watershed that are required to implement a Stage 1 adaptive management program for their existing development according to Session Law 2009-216. A complete submittal package includes this form and three copies of the Stage 1 adaptive management program narrative. Incomplete submittals may be returned to the applicant.

I. APPLICANT STATUS INFORMATION

Name of Local Government	
County(s)	
Approximate Jurisdictional Area in Jordan Watershed (mi ²)	
Subwatershed(s) (Haw, LNH, UNH)	
Approximate Population in Jordan Watershed	

II. EXISTING LOCAL WATER QUALITY PROGRAMS

Local Water Supply Watershed Program	<input type="checkbox"/> Yes <input type="checkbox"/> No
NPDES Phase II Stormwater Program	<input type="checkbox"/> Yes <input type="checkbox"/> No
NPDES Phase II Permit #:	

III. RELIANCE ON ANOTHER ENTITY TO SATISFY ONE OR MORE OF YOUR PROGRAM OBLIGATIONS (If more than one, attach additional sheets.)

Do you intend that another entity perform one or more of your program obligations?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If yes, identify each entity and the element they will be implementing	
•Name of Entity	
•Element they will implement	
•Contact Person	
•Contact Address	
•Contact Telephone Number	
Are legal agreements in place to establish responsibilities?	<input type="checkbox"/> Yes <input type="checkbox"/> No

IV. CONTACT INFORMATION

Provide the following information for the person/position that will be responsible for day-to-day implementation and oversight of the Stage I adaptive management program.

Name of Contact Person	
Title	
Mailing Address	
City	
State and Zip Code	
Telephone Number	
Fax Number	
E-Mail Address	

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APPENDIX B

SAMPLE BMP SUMMARY TABLES

The following examples illustrate how measurable goals could be used to track and document program effectiveness. These examples represent only selected portions of a program and are not intended to serve as examples of comprehensive programs.

**Example: Public Education and Outreach
BMP and Measurable Goals**

Objectives for Public Education and Outreach

- Distribute educational materials to the community.
- Conduct public outreach activities.
- Raise public awareness on the causes and impacts of nutrient loading from stormwater runoff from existing development.
- Inform the public on steps they can take to reduce to reduce nutrient loading from stormwater runoff from existing development.
- Provide opportunities for the public to participate in program development and implementation.

BMPs for Public Education and Outreach

BMP	Measurable Goals	YR 1	YR 2	YR 3	YR 4	YR 5	Responsible Position/Party
(a) Public Education and Outreach Program	A public education program.	X	X	X	X	X	Stormwater Engineer I
(b) Informational Web Site	An internet web site. Post newsletter articles, information on water quality, stormwater projects and activities, and ways to contact stormwater management program staff.			X	X	X	City Administrator
(c) Public education materials for schools, homeowners, and/or businesses	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.	X	X	X	X	X	City Educational Coordinator
(d) Disseminate Public Education Material	Written educational material distributed to a broad public audience. Possibilities include, but are not limited to utility mailouts and at special events.				X	X	City Administrator
(e) Public Education Campaign	The local government will produce, and air on local radio, a 30-second public service announcement on stormwater and what the public can do to prevent stormwater impacts. This radio ad will air at least once a week for two years. The	X	X				City Administrator

BMP	Measurable Goals	YR 1	YR 2	YR 3	YR 4	YR 5	Responsible Position/Party
	local government will conduct a survey at the end of the permit term to ascertain behavioral changes in target audiences.						
(f) Stormwater education program for school children	A minimum of 50 percent of all school children (K-12) will receive class room instruction every two years on stormwater pollution by providing the School Districts with materials, including videos, live presentations, brochures, and other media.	X	X				City Administrator
(g) Hold public meetings	Three public meetings held on the proposed measures.	X	X				City Administrator
(a) Organize a volunteer community involvement program	A volunteer program designed to promote ongoing citizen participation.	X	X	X	X	X	City Administrator
(d) Establish a Citizens' Group(s)	A citizens' group(s) developed for input on stormwater issues and the measures.				X	X	City Administrator
(e) Coordination meeting	Annual coordination meeting involving regulatory agencies, and interested stakeholders to discuss progress of the stormwater measures and the next year's activities.		X	X	X	X	City Administrator

**Example: Mapping Program
BMP and Measurable Goals**

Objectives for Mapping Program

- Maintain an inventory of major outfalls¹ and stormwater drainage system components.

BMPs for Mapping Program

BMP	Measurable Goals	YR 1	YR 2	YR 3	YR 4	YR 5	Responsible Position/Party
(a) Stormwater and sanitary sewer system map and major outfall inventory.	Map of storm sewer system and location of sanitary sewers. Major outfalls and stormwater drainage system components identified. For each major outfall identify the location, reference number, size and type of structure, apparent condition of structure, land use types, and dry-weather flow.	X	X	X	X	X	Stormwater Engineer I
(b) Maintain an inventory of major outfalls that discharge to waters of the State.	Established procedures to continue to identify, locate and update map of drainage system. Current inventory major outfalls that discharges to waters of the State.			X	X	X	Stormwater Engineer I

¹ Major municipal separate storm sewer outfall (or "major outfall") means a municipal separate storm sewer outfall that discharges from a single pipe with an inside diameter of 36 inches or more or its equivalent (discharge from a single conveyance other than circular pipe which is associated with a drainage area of more than 50 acres); or for municipal separate storm sewers that receive storm water from lands zoned for industrial activity (based on comprehensive zoning plans or the equivalent), an outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent (discharge from other than a circular pipe associated with a drainage area of 2 acres or more).

**Example: Illicit Discharge Detection and Elimination
BMP and Measurable Goals**

Objectives for Illicit Discharge Detection and Elimination

- Develop and Implement Illicit Discharge Detection and Elimination Program
- Detect and eliminate illicit discharges, including spills and illegal dumping.
- Address significant contributors of pollutants.
- Inform employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.

BMPs for Illicit Discharge Detection and Elimination

BMP	Measurable Goals	YR 1	YR 2	YR 3	YR 4	YR 5	Responsible Position/Party
(a) Establish and maintain appropriate legal authorities	Adequate legal authorities to prohibit illicit discharges and enforce the approved Illicit Discharge Detection and Elimination Program.			X	X	X	Stormwater Engineer I
(b) Implement illicit discharge detection procedures	Inspection program to detect dry weather flows at system outfalls. Procedures for tracing the sources of illicit discharges and for removing the sources. Procedures for identification of priority areas likely to have illicit discharges.				X	X	Stormwater Engineer I
(c) Employee training	Municipal staff trained on detecting and reporting illicit discharges.		X	X	X	X	Stormwater Engineer I
(d) Public education	Businesses and the general public informed of hazards associated with illegal discharges and improper disposal of waste.		X	X	X	X	Stormwater Engineer I
(e) Public reporting mechanism	Established and publicized reporting mechanism for the public to report illicit discharges.		X	X	X	X	Stormwater Engineer I

**Example: Best Management Practices (BMP) Maintenance Program
BMP and Measurable Goals**

Objective for a Best Management Practices (BMP) Maintenance Program

- Prevent or reduce stormwater pollution.
- Provide a mechanism to require long term operation and maintenance of BMPs.
- Ensure controls are in place to minimize water quality impacts
- Evaluate various O&M management agreement. T
- Allow the local government to be reimbursed for O&M performed by the local government
- Allow the local government to enter the property for inspection purposes

BMPs for a Best Management Practices Maintenance Program

BMP	Measurable Goals	YR 1	YR 2	YR 3	YR 4	YR 5	Responsible Position/Party
(a) Mechanism to require long-term operation and maintenance of structural BMPs.	Description of local government's operation and maintenance (O&M) program.			X	X	X	Stormwater Engineer I
(b) Mechanism to require annual inspections of structural BMPs.	Annual inspections of structural BMPs performed by a qualified professional.						
(c) Training program for both employees and the general public.	Training program for both employees and the general public designed to ensure adequate long-term operation and maintenance of BMPs. Describe any existing, available materials you plan to use. Describe how this training program will be coordinated with the outreach programs developed for the public information minimum measure and the illicit discharge minimum measure.						
(d) Mechanism to require and maintain an inventory of structural BMPs.	An inventory of structural BMPs owned and operated by the local government.			X	X	X	Stormwater Engineer I
(e) Mechanism to require annual review of the (O&M) program.	Annual review of the (O&M) program.				X	X	Stormwater Engineer I

