

**Attachment D  
NPDES Stormwater Permitting  
Phase II Action Plan**

**CITY OF GRIFFIN**

**GEORGIA**

**STORMWATER UTILITY**



**NPDES STORMWATER PERMITTING**

**PHASE II ACTION PLAN**

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**NPDES STORMWATER PERMITTING**

**PHASE II ACTION PLAN**

**Prepared for:**

**City of Griffin**

**Department of Public Works and Stormwater Utilities**

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**July 7, 1999**

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Table 1. Minimum Control Measures and City Status Regarding Phase II Permitting

### Appendices

Appendix A. 40CFR122/123, Dated January 9, 1998

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## EXECUTIVE SUMMARY

### **NPDES Phase II Stormwater Permitting Action Plan**

The U.S. Environmental Protection Agency plans to publish final regulations for Phase II Stormwater Permitting (40 CFR parts 122 and 123) after signing on October 29, 1999. Included in the Federal Register is a listing of municipalities, including the City of Griffin, which will be required to comply with the regulations. Based on the current time schedule for implementation, it appears the City will be expected to file its permit application with the Georgia Department of Natural Resources, Environmental Protection Division, on or after June, 2002. The permit application will be required to contain information that will direct the City's compliance efforts for a period of up to five years following issuance, at which time the permit would need to be renewed.

Anticipating the Phase II regulations, the City of Griffin retained the services of Ogden Environmental and Energy Services, Inc., to assist the City in preparing this action plan to address the proposed regulatory requirements. These include six "minimum control measures" designed to deal with municipal stormwater management:

- Public Education and Outreach on Stormwater Impacts,
- Public Involvement and Participation,
- Illicit Discharge Detection and Elimination,
- Construction Site Stormwater Runoff Control,
- Post-Construction Stormwater Management in New Development and Redevelopment, and
- Pollution Prevention and Good Housekeeping for Municipal Operations.

Each minimum control measure has "mandatory components" that must be addressed in the permit application, as well as "suggested components" that are deemed desirable by the USEPA and would be voluntary actions on the part of the City. These six minimum control measures are not final at the present time, and may be modified by the Federal Government or the State permitting authority. Ogden personnel met with staff of the Georgia Department of Natural Resources, Environmental Protection Division. These individuals indicated that State permitting requirements will probably not be made public prior to the publication date for the State General Permit required by the Federal regulations.

The regulations also specify requirements for record keeping and allowing citizen access to records. Annual reports must be filed with the State documenting efforts in stormwater management related to the six minimum control measures and other permitting requirements during the first five years of the permit. Reports will be due in the second and fourth year of the first, and subsequent, five-year permit renewal periods. Development of a central activity management system for stormwater management activities is encouraged, since such a system would greatly facilitate completion of required reports.

This Action Plan was developed for the City by comparing mandatory and suggested components with existing and planned City stormwater activities (Table 1). The results of this comparison were used to develop a listing of needed activities that should be considered by the City to prepare for filing the Phase II Permit Application

In summary, the City has done an excellent job developing stormwater management programs that anticipate Phase II Stormwater Permitting requirements. This proactive approach includes adoption of City ordinances, development of a Stormwater Utility and associated funding base, an extensive public education effort, and other stormwater management actions that are either already in place or planned for implementation in the near future. These actions indicate the City already has or will have many of the mandatory components and the majority of suggested components in operation prior to the permitting deadline of June, 2002, provided that planned actions are completed by that date. It should be noted that these mandatory and suggested components are not required to be implemented by the date of permit application, but during the first five-year permit cycle. However, the State has not specified when these will be required during this cycle.

In addition, the City has shown commendable initiative in applying for and successfully obtaining grant and loan funds available to support stormwater-related activities. These include a \$840,000 Transportation Enhancement Activity grant from the Georgia Department of Transportation to retrofit stormwater management controls and implement Best Management Practices (BMPs) designed to improve water quality associated with highway runoff from SR 16 into the Potato Creek watershed. The State Revolving Loan Fund, managed by the Georgia Environmental Facilities Authority, has reportedly reserved \$2,734,700 to assist the City in developing stormwater facilities. An additional \$206,500 was obtained to fund the City's 1999 purchase of a new JetVac storm drain cleaning truck.

## 1.0 INTRODUCTION

The City of Griffin Department of Public Works (City) entered into an agreement with Ogden Environmental and Energy Services, Inc., (Ogden) to develop a Phase II Stormwater Permitting Action Plan. This Action Plan was to address issues of concern raised by *National Pollutant Discharge Elimination System (NPDES) Proposed Regulations for Revision of the Water Pollution Control Program Addressing Stormwater Discharges*. The proposed regulations, generally referred to as Phase II Stormwater Permitting Requirements, were initially published as 40 CFR Parts 122 and 123 in the Federal Register on January 9, 1998 (Appendix A). A final version of these regulations is currently scheduled to be signed on October 29, 1999.

The purpose of this Action Plan is to provide the City with descriptions of minimum control measures contained in the proposed regulations, compare these measures to existing City stormwater programs, and provide suggestions for compliance with proposed regulatory requirements. This Action Plan also serves as a logical basis for archiving detailed information that may be required to support the City's NPDES Phase II Permit Application, and will assist the City in planning and preparing for permit application.

The Scope of Services for this Action Plan includes the following five tasks:

- Task 1. Current Regulatory Status Assessment
- Task 2. Current Local Stormwater Program Status
- Task 3. Status of Other Governments
- Task 4. Action Plan Development, and
- Task 5. Implementation Assistance (optional, not included in this report)

## 2.0 CURRENT FEDERAL REGULATORY REQUIREMENTS

### 2.1 Overview

The City of Griffin is listed in Appendix 7 of the proposed regulations (40CFR122/123, Federal Register Vol. 63, No. 6, page 1632, dated January 8, 1988). This Appendix lists “Incorporated Places and Counties Potentially Designated (Outside Urbanized Areas) Under the Stormwater Phase II Proposed Rule.” Municipalities on this list, as well as other unlisted municipalities that operate municipal separate storm sewer systems, may become “designated” as requiring NPDES Phase II Permitting based on one or more of the following criteria (Section II(G)(2):

- “Actual or potential exceedances of water quality standards, including impairment of designated uses, or other adverse impacts on water quality, as determined by local conditions or watershed and TMDL assessments.”
- “A population of at least 10,000 and a population density of at least 1,000 per square mile.”
- Designation as an “urbanized area ... by the year 2000 Census based on population criteria adopted by the Bureau of the Census”.
- “(Discharge to) sensitive waters generally including public drinking water intakes and their designated protection areas; swimming beaches and waters in which swimming occurs; shellfish beds; designated Outstanding National Resource Waters; National Marine Sanctuaries; waters within Federal, State, and local parks; and waters containing threatened or endangered species and their habitat, as well as other waters so designated.”
- “Areas of high growth or growth potential (tentatively defined as 10 percent population growth over a ten-year period.)”
- “High population density (undefined in the current proposed regulations).”
- “Areas closely outside of an urbanized area (that) have a good potential for future growth and may also have significant impacts on a neighboring regulated municipality that is within the urbanized area.”
- “Significant contributor of pollutants to waters of the United States.”
- “Ineffective control of water quality concerns by other programs.”

The Phase II stormwater permit will, at a minimum, require the City to develop, implement, and enforce a stormwater management program designed to reduce discharge of pollutants from the City municipal separate storm sewer system to the “maximum extent practicable” to protect water quality. Six “minimum control measures” are required under Phase II regulations:

- Public Education and Outreach on Stormwater Impacts,
- Public Involvement and Participation,
- Illicit Discharge Detection and Elimination,
- Construction Site Stormwater Runoff Control,
- Post-Construction Stormwater Management in New Development and Redevelopment, and
- Pollution Prevention and Good Housekeeping for Municipal Operations.

Each of these six measures contains both “mandatory” and “suggested” components to comply with Phase II permitting requirements. Mandatory components must be met. Compliance with suggested components is optional on the part of municipalities covered under the proposed regulations, but is deemed desirable by the USEPA. Both types of component are summarized in Table 1, along with the status of related City stormwater programs and additional actions the City should consider to comply with the proposed regulations.

These minimum control measures are currently in draft form, with final regulations due in November, 1999. States having designated NPDES permitting authority are required to develop their own regulations and general permits that will incorporate the final Federal requirements. Mandatory and suggested components of the six minimum control measures are subject to modification until publication of the final State General Permit.

## 2.2 Permit Requirements

The permitting requirements of 40CFR122 have been excerpted from the proposed regulations and are provided in this section. Language within the shaded boxes contains both mandatory and suggested program components (the latter in parentheses) for each of the six minimum control measures contained in the proposed regulations. Language following the shaded boxes is from the preamble section of the proposed regulations and is provided to explain USEPA’s intent with regard to the six minimum control measures.

*Sec. 122.34 As an owner or operator of a regulated small municipal separate storm sewer system, what will my NPDES municipal stormwater permit require?*

(a) Your NPDES municipal stormwater permit will, at a minimum, require you to develop, implement, and enforce a stormwater management program designed to reduce the discharge of pollutants from your municipal separate storm sewer system to the maximum extent practicable (MEP) and protect water quality. Your stormwater management program must include the minimum control measures described in

paragraph (b) of this section. For purposes of this section, narrative effluent limitations requiring implementation of best management practices (BMPs), are generally the most appropriate form of effluent limitations when designed to satisfy technology requirements, including reductions of pollutants to the maximum extent practicable, and water quality-based requirements of the Clean Water Act. Implementation of the best management practices consistent with the provisions of the stormwater management program required pursuant to this section and the provisions of the permit required pursuant to Sec. 122.33 will constitute compliance with the standard of "reducing pollutants to the maximum extent practicable." Your NPDES permitting authority will specify a time period of up to 5 years from the date of permit issuance for you to develop and implement your program.

(b) Minimum control measures (i through vi):

**i. Public Education and Outreach on Stormwater Impacts.**

(1) Public education and outreach on stormwater impacts. You must implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and the steps that can be taken to reduce stormwater pollution.

(You may use stormwater educational materials provided by your State, Tribe, EPA, or, subject to the approval of the local government, environmental or other public interest or trade organizations. The materials or outreach programs should inform individuals and households about the steps they can take, such as ensuring proper septic system maintenance, limiting the use and runoff of garden chemicals, becoming involved in local stream restoration activities that are coordinated by youth service and conservation corps and other citizen groups, and participating in storm drain stenciling, to reduce stormwater pollution. In addition, some of the materials or outreach programs should be directed toward targeted groups of commercial, industrial, and institutional entities likely to have significant stormwater impacts. For example, information to restaurants on the impact of grease clogging storm drains and to garages on the impact of oil discharges. You are encouraged to tailor your outreach program to address the viewpoints and concerns of all communities, particularly minority and disadvantaged communities, as well as children.)

EPA is proposing that any NPDES permit issued to regulated small municipal separate storm sewer systems would require the owner or operator to implement a public education program to distribute educational materials to the community (or conduct equivalent outreach activities) about the impacts of stormwater discharges on waterbodies and the steps to reduce stormwater pollution.

EPA believes that as the public gains a greater understanding of the municipally developed program, the municipality is likely to gain more support for the program (including funding initiatives). In addition, compliance with the program would probably be greater if the public understands the personal responsibilities expected of them and others. Well-informed citizens could even act as formal or informal educators to further disseminate information and gather support for the program, thus easing the burden on the municipalities to perform all educational activities.

The public outreach provision has been tailored to respond to specific concerns raised in the course of the FACA process.

- For example, municipal representatives advocated the inclusion of language that would clarify that use of educational materials from outside groups, such as trade associations and environmental groups, would be subject to the approval of the municipality.
- Also, the above-referenced language addressing environmental justice concerns was in response to input from Stormwater Phase II FACA Subcommittee members.

The State, EPA, environmental organizations or other public interest or trade organizations could provide materials, subject to the approval of the owner or operator of the municipal system.

The materials or outreach programs should inform individuals and households about steps that can be taken to reduce stormwater pollution, such as ensuring proper septic system maintenance, limiting the use and runoff of garden chemicals to appropriate amounts, properly disposing of used motor oil or household hazardous wastes, and becoming involved in local stream restoration activities.

EPA would encourage individuals to participate:

- In activities coordinated by youth service organizations, conservation corps, or other citizen groups; and
- In the municipal program by performing such services as roadside litter pickup and storm drain stenciling or highlight the potential public health risks to children if exposed to pollution when playing near storm drains.

In addition, some of the materials or outreach programs should be directed toward targeted groups of commercial, industrial, and institutional entities likely to have significant stormwater impacts to explain their impacts on stormwater pollution (e.g., information to restaurants on the impact of grease clogging storm drains and to garages on the impacts of used oil discharges). The owner or operator is encouraged to tailor the outreach program to address the viewpoints and concerns of all communities, particularly minority and disadvantaged communities, as well as children

Municipalities would be encouraged to:

- Enter into partnerships with their States in fulfilling the public education requirement. It may be much more cost-effective to utilize a State education program instead of numerous municipalities developing their own, and
- Work with other organizations (e.g., environmental and nonprofit groups and industry) that might be able to assist in fulfilling this requirement. Many of these kinds of organizations already have educational materials, and the groups could work together to educate the public.

## ii. Public Involvement/Participation.

(2) Public involvement/participation. You must comply with State, Tribal and local public notice requirements.

(You should include the public in developing, implementing, and reviewing your stormwater management program. The public participation process should make efforts to reach out and engage all economic and ethnic groups. You may consider impanelling a group of citizens to participate in your decision-making process, hold public hearings, or work with volunteers.)

Public involvement is an integral part of the municipal stormwater program. The Agency believes that the public can provide valuable input and assistance to the municipality's stormwater

program. The advantages of active public involvement include reduced pollutant loadings, increased program support, and vigilant protection of waterbodies.

Some examples of such involvement follow:

- First of all, the public may be subject to local stormwater program requirements, guidelines, and financial costs. For example, the public could be subject to a local ordinance that prohibits dumping used oil down storm sewers.
- Members of the public might choose to participate as actively involved partners in program planning, development, and implementation. Opportunities for members of the public to participate in program development and implementation could include:
  - Serving as citizen representatives on a local stormwater management panel,
  - Attending public hearings,
  - Working as citizen volunteers to educate other individuals about the program,
  - Assisting in program coordination with other pre-existing programs, and
  - Aiding in the development and distribution of educational materials or participating in volunteer monitoring efforts.
- The public could protect waterbodies by taking civil action under section 505 of the CWA against any person who is alleged to be in violation of an effluent standard or permit condition. In such situations, members of the public would be strongly encouraged, however, to resolve any disagreements or concerns directly with the parties involved, either informally or through any available alternative dispute resolution process.
- The public could also petition the NPDES permitting authority to require an NPDES permit for a discharge composed entirely of stormwater that contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States.

Although efforts to educate and involve the public consume limited staff and financial resources, the benefits are numerous:

- An educated public increases program compliance from residents and businesses as they realize their individual and collective responsibility for protecting water resources.
- An educated public could reduce pollutant loadings by limiting the use of garden chemicals.
- An educated public is more likely to understand the environmental benefits of a municipal stormwater program and, therefore, may be more willing to fund such a program.
- The program is also more likely to receive public support and participation, and is less likely to raise legal challenges, when the public is actively involved from the program's inception and allowed to participate in the decision making process.
- In a time of limited staff and financial resources, public volunteers offer diverse backgrounds and expertise that may be used to plan, develop, and implement a program that is tailored to local needs.
- The public's participation is also useful in the areas of information dissemination/education and reporting of violators, where large numbers of community members can be more effective than a few regulators.

The Agency is proposing that the public play an active role in the development and implementation of the municipality's stormwater management program.

- The municipal stormwater management program would need to include a public participation program that complies with applicable State and local public notice requirements.
- The public participation process should engage all economic and ethnic groups.
- Early and frequent public involvement can shorten implementation schedules and broaden public support for a program.

Challenges associated with public involvement are:

- Addressing conflicting viewpoints,
- Dealing with non-interest,
- A slowing down of the decision making process, and
- Engaging the public in the public meeting and program design process.

Nevertheless, EPA strongly believes that the overall benefits of an aggressive and inclusive program, including involvement of low-income and minority communities, is an essential component of a State, Tribal, Federal, and municipal stormwater management program. Public participation ensures a more successful stormwater program by providing valuable expertise and a conduit to other programs and governments, which would be of primary importance if the municipal stormwater program is to be implemented on a watershed basis.

### iii. Illicit Discharge Detection and Elimination.

(3) Illicit discharge detection and elimination. You must:

- (i) Develop, if not already completed, a storm sewer system map, or equivalent, showing the location of major pipes, outfalls, and topography. In addition, if data already exist, show areas of concentrated activities likely to be a source of stormwater pollution;
- (ii) To the extent allowable under State or Tribal law, effectively prohibit, through ordinance, order, or similar means, illicit discharges into your storm sewer system and implement appropriate enforcement procedures and actions;
- (iii) Implement a plan to detect and address illicit discharges, including illegal dumping, to your system; and
- (iv) Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.

(Actions may include storm drain stenciling, a program to promote, publicize, and facilitate public reporting of illicit connections or discharges, and distribution of outreach materials.)

Discharges from stormwater drainage systems often include wastes and wastewater from non-stormwater sources. EPA's Nationwide Urban Runoff Program (NURP) indicated that many stormwater outfalls still discharge during substantial dry periods. Pollutant levels in these dry weather flows were shown to be high enough to significantly degrade receiving water quality.

- Results from a 1987 study conducted in Sacramento, California, revealed that slightly less than one-half of the water discharged from a municipal separate storm sewer system was not directly attributable to precipitation runoff. A significant portion of these dry weather flows results from illicit and/or inappropriate discharges and connections to the municipal separate storm sewer system. Illicit discharges enter the system through either direct connections (e.g., wastewater piping either mistakenly or deliberately connected to the storm drains) or indirect connections (e.g., infiltration into the storm drain system or spills collected by drain inlets).
- Under the existing NPDES program for stormwater, permits for large and medium municipal separate storm sewer systems are to include an effective prohibition against non-stormwater discharges into their storm sewers (see CWA section 402(p)(3)(B)(ii)). Further, EPA believes that in implementing municipal stormwater management plans under these permits, large and medium municipalities generally found their illicit discharge detection and elimination programs to be cost-effective.

In the proposal, any NPDES permit issued to an owner or operator of a regulated small municipal separate storm sewer system would, at a minimum, require that owner or operator to develop and implement an illicit discharge detection and elimination program. Inclusion of this measure for municipal stormwater programs for regulated small municipalities would be consistent with the “effective prohibition” requirement for large and medium municipal separate storm sewer systems.

Under such a program, the owner or operator would be required to:

- Demonstrate awareness of the system using maps or other existing documents,
- Develop (if not already completed) a storm sewer system map (or equivalent) showing the location of major pipes, outfalls, and topography. The map should identify areas of concentrated activities likely to be a source of stormwater pollution, if the data already exist,
- Effectively prohibit through ordinance, order, or similar means (for non governmental owners or operators of municipal separate storm sewer systems), to the extent allowable under State or Tribal law, illicit discharges into the separate storm sewer system and implement appropriate enforcement procedures and actions as needed,
- Develop and implement a plan to detect and address illicit discharges (including illegal dumping) to the system, and to
- Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste. These informational actions could include:
  - Storm drain stenciling;
  - A program to promote, publicize, and facilitate public reporting of illicit connections or discharges; and
  - Distribution of outreach materials.

Recycling and other public outreach programs could be developed to address potential sources of illicit discharges, including used motor oil, antifreeze, pesticides, herbicides, and fertilizers.

The illicit discharge detection and elimination program would not necessarily need to address all types of non-stormwater discharges. As with the existing municipal application requirements, the following categories of non-stormwater discharges or flows would only need to be addressed in the municipal stormwater program where such discharges are identified as significant contributors of pollutants:

- water line flushing,
- Landscape irrigation,
- Diverted stream flows,
- Rising ground waters,
- Uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20)) to separate storm sewers,
- Uncontaminated pumped ground water,
- Discharges from potable water sources,
- Foundation drains,
- Air conditioning condensation,
- Irrigation water,
- Springs,
- Water from crawl space pumps,
- Footing drains,
- Lawn watering,
- Individual residential car washing,

- Flows from riparian habitats and wetlands,
- Dechlorinated swimming pool discharges, and
- Street wash water.

The program should address discharges or flows from fire fighting where such discharges or flows are identified as significant sources of pollutants.

The existing stormwater permit application requirements at § 122.26(d), contain two sets of application requirements regarding illicit discharges that EPA does not propose to require of regulated small municipal separate storm sewer systems. Specifically:

- EPA does not propose to require regulated small system owners or operators to describe procedures to prevent, contain, and respond to spills that could discharge into the municipal separate storm sewer, and
- Controls to limit infiltration of seepage from municipal sanitary sewers to municipal separate storm sewer systems where necessary.

#### iv. Construction Site Stormwater Runoff Control.

(4) Construction site stormwater runoff control. You must develop, implement, and enforce a program to reduce pollutants in stormwater runoff to your municipal separate storm sewer system from construction activities that result in land disturbance of greater than or equal to one acre. You must use an ordinance or other regulatory mechanism that controls erosion and sediment to the maximum extent practicable and allowable under State or Tribal law. Your program must control other waste at the construction site that may adversely impact water quality, such as discarded building materials, concrete truck washout, and sanitary waste. Your program also must include, at a minimum, requirements for construction site owners or operators to implement appropriate BMPs, provisions for pre-construction review of site management plans, procedures for receipt and consideration of information submitted by the public, regular inspections during construction, and penalties to ensure compliance. (See Sec. 122.44(s))

Over a short period of time, stormwater discharges from construction site activity can contribute more pollutants, including sediment, to a receiving stream than had been deposited over several decades. Stormwater runoff from construction sites can include pollutants other than sediment, such as phosphorus and nitrogen from fertilizer, pesticides, petroleum derivatives, construction chemicals, and solid wastes that may become mobilized when land surfaces are disturbed.

Generally, properly implemented construction site ordinances are effective in reducing these pollutants. In many areas, however, the effectiveness of ordinances in reducing pollutants is limited due to inadequate enforcement or incomplete compliance with such local ordinances by construction site discharges of stormwater. Not all construction site owners or operators properly maintain BMPs. For example, sediment traps and sediment basins may fill up and silt fencing may break or be overtopped.

The proposed rule would require owners or operators of regulated small municipal separate storm sewer systems to develop, implement, and enforce a pollutant control program to reduce pollutants in stormwater runoff from construction activities that result in land disturbance of 1 or more acres to their municipal separate storm sewer systems as a part of their stormwater management program. The owner or operator:

- Would need to use an ordinance or other regulatory mechanism that controls erosion and sediment to the maximum extent practicable and allowable under State, Tribal, or local law;

- Would need to ensure control of other waste at construction sites that could adversely impact water quality. This waste could include discarded building materials, concrete truck washout, and sanitary waste.
- Would need to include, at a minimum:
  - Requirements for construction site owners or operators to implement appropriate BMPs, such as silt fences, temporary detention ponds and hay bales;
  - Provisions for pre-construction review of site management plans; and
  - Regular inspections during construction; and penalties to ensure compliance.
- Would include the program requirement to establish procedures for the receipt and consideration of information provided by the public in response to stakeholder concerns regarding public involvement and public access to information. This requirement further reinforces the public participation component of the municipal program by establishing a formal process for considering and responding to public inquiries regarding construction activities.

In conjunction with these requirements, EPA is also proposing to add § 122.44(s) which would allow the NPDES permit issued to regulated construction sites (described under § 122.26(b)(15)(i)) to incorporate by reference qualifying State, Tribal, or local erosion and sediment control program requirements. A qualifying State, Tribal, or local erosion and sediment control program would be one that meets the requirements of a municipal NPDES separate storm sewer permit or a program otherwise approved by the NPDES permitting authority for programs operating outside geographic boundaries of a permitted municipal separate storm sewer system. The NPDES permitting authority's approval of such programs would need to assure compliance with the minimum construction site control program requirements described above.

The permitting authority could also include, by reference in a general permit, those State, Tribal, or local requirements that meet the standard of best available technology (BAT) for those construction site stormwater discharges identified at § 122.26(b)(14)(x) (i.e., sites disturbing more than 5 acres of land), including clearing, grading, and excavation activities. As a result of this provision, such local requirements would, in effect, provide the construction site erosion and sediment control requirements of the NPDES permit. Construction site owners and operators would be subject to only one set of erosion and sediment control requirements, thereby eliminating duplication.

At the same time, noncompliance with the referenced local requirements would be considered noncompliance with the NPDES permit and would be federally enforceable.

EPA acknowledges that many owners or operators of small municipal separate storm sewer systems already administer local erosion and sediment control programs. EPA believes that the proposed approach would recognize a municipality's flexibility in developing practical procedures to control construction site discharges from within its jurisdiction, while still requiring an NPDES permit to ensure an appropriate base level of water quality protection. Moreover, the Agency also believes that there is an appropriate role for the permitting authority as well as citizens groups in ensuring that construction site owners/operators comply with the requirements of an NPDES permit.

Finally, EPA contemplates that there would be some permit provisions, such as requirements for site management plans, that are not typically required by local erosion and sediment control programs which would be required as one of the requirements of a construction general permit. Therefore, the Agency believes that the proposed dual approach of local controls and NPDES

permitting most effectively ensures implementation of appropriate stormwater control measures at construction sites while minimizing redundant controls.

The proposal for permit requirements for regulated construction sites (described under § 122.26(b)(15)(i)) would include developing a stormwater pollution prevention plan (SWPPP). However, the current proposal for the municipal program minimum measure for construction site stormwater control runoff does not contain an equivalent requirement—leaving a potential gap between the two areas of the proposal that address regulation of construction. Currently, the proposal defines a local program as “qualifying” if it meets the minimum program requirements established in § 122.34(b)(4). EPA is concerned as to whether this raises a potential inequitable regulatory scheme where certain construction sites would need to be covered under a SWPPP because they are outside a covered municipality while nearby construction sites would not need SWPPP coverage because they are within a municipality that has a construction program that meets § 122.34(b)(4) requirements. EPA intends to facilitate the broadest application of the § 122.44(s) provision to avoid duplication of programmatic requirements and paperwork redundancy and seeks comment on a means to best achieve this goal.

EPA considered structuring the permit requirements for the municipal construction program around five control principles that were to underlie the development of eight program elements to be implemented by the owner or operators of the municipal separate storm sewer system.

The five principles were:

- Use of good site planning,
- Minimization of soil movement,
- Capture of sediment to the greatest degree possible,
- Good housekeeping practices, and
- Mitigation of the impacts of post-construction stormwater discharges.

The eight elements include:

- A program description;
- Coordination mechanisms with existing programs;
- Requirements for nonstructural and structural BMPs;
- Priorities for site inspections;
- Educational and training measures;
- Exemption of some construction activities due to limited impact;
- Incentives, awards, or streamlining mechanisms available to developers; and
- Description of staff and resources.

Under this approach, any local program that incorporated these principles and elements into its stormwater program would have been considered a “qualifying” local program that met Federal requirements. The elements suggested were modified from current requirements found at 40 CFR 122.26(d)(2)(iv)(D). After in-depth discussion with all stakeholders, many of these elements were considered to be more appropriate as guidance than as regulatory requirements for small municipal systems. Some stakeholders expressed concerns about the applicability and interpretation of the five control principles and eight program elements on a national level, specifically that a single, national specification would be unworkable. Therefore, EPA is proposing regulatory text intended to build on the fundamental aspects of the existing NPDES program for municipal stormwater, while streamlining and improving certain aspects of the program applicable to owners or operators of regulated small municipal separate storm sewer systems.

v. **Post-Construction Stormwater Management in New Development and Redevelopment.**

(5) Post-construction stormwater management in new development and redevelopment. You must develop, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects that result in land disturbance of greater than or equal to one acre and that discharge into your municipal separate storm sewer system. Your program must include a plan to implement site-appropriate and cost-effective structural and non-structural best management practices (BMPs) and ensure adequate long-term operation and maintenance of such BMPs. Your program must ensure that controls are in place that would prevent or minimize water quality impacts.

(If the involved parties consider water quality impacts from the beginning stages of projects, new development and potentially redevelopment allow opportunities for water quality sensitive projects. EPA recommends that municipalities establish requirements for the use of cost-effective BMPs that minimize water quality impacts and attempt to maintain pre-development runoff conditions. In other words, post-development conditions should not be different from pre-development conditions in a way that adversely affects water quality. The municipal program should include structural and/or non-structural BMPs. EPA encourages locally-based watershed planning and the use of preventative measures, including non-structural BMPs, which are generally lower in cost than structural BMPs, to minimize water quality impacts. Non-structural BMPs are preventative actions that involve management and source controls. Examples of non-structural BMPs include policies and ordinances that result in protection of natural resources and prevention of runoff. These include requirements to limit growth to identified areas, protect sensitive areas such as wetlands and riparian areas, minimize imperviousness, maintain open space, and minimize disturbance of soils and vegetation. Examples of structural BMPs include storage practices (wet ponds and extended-detention outlet structures), filtration practices (grassed swales, sand filters and filter strips), and infiltration practices (infiltration basins, infiltration trenches, and porous pavement). Stormwater technologies are constantly being improved, and EPA recommends that municipal requirements be responsive to these changes.)

The Nationwide Urban Runoff Program study and more recent investigations indicate that prior planning and designing for the minimization of pollutants in stormwater discharges is the most cost-effective approach to stormwater quality management. Reducing the discharge of pollutants after the discharge enters a storm sewer system is often more expensive and less efficient than preventing or reducing the discharge of pollutants at the source. Increased human activity associated with development often results in increased discharges of pollutants. In addition, sediment and debris transport and deposition can directly impair aquatic life. If the involved parties consider water quality impacts from the beginning stages of projects, new development and possibly redevelopment allow opportunities for more water quality sensitive projects.

For example the following measures have been shown to reduce pollutant loadings in stormwater runoff from developed areas:

- Minimization of impervious areas,
- Maintenance or restoration of natural infiltration,
- Wetland protection,
- Use of vegetated drainage ways, and
- Use of riparian buffers

EPA encourages local governments to identify specific problem areas within their jurisdictions and initiate innovative solutions and designs to focus attention on those areas through local planning. In the rule, EPA is proposing that owners or operators of regulated small municipal

separate storm sewer systems develop, implement, and enforce a program that includes a plan to address stormwater runoff from new development and redevelopment projects to their municipal separate storm sewer systems using site-appropriate and cost-effective structural and non-structural BMPs, as appropriate.

The program would need to ensure that controls are in place that would prevent or minimize water quality impacts.

- The program should ensure adequate long-term operation and maintenance of BMPs. EPA would address questions regarding responsibility for long-term BMP operation and maintenance in guidance materials.
- EPA intends the term “redevelopment” to refer to alterations of a property that change the “footprint” of a site or building in such a way that results in the disturbance of equal to or greater than 1 acre of land. The term is not intended to include such activities as exterior remodeling, which would not be expected to cause adverse stormwater quality impacts and offer no new opportunity for stormwater controls.
- EPA intends to provide guidance to owners or operators of municipal systems and permitting authorities on appropriate planning considerations, structural and non-structural controls, and post-construction operation and maintenance of BMPs.
- EPA also intends to present a broad menu of options as guidance allowing for flexibility to accommodate local conditions.
- EPA proposes to recommend that municipalities establish requirements for the use of cost-effective BMPs that minimize water quality impacts and attempt to maintain pre-development runoff conditions. In other words, post-development conditions should not be different from pre-development conditions in a way that adversely affects water quality.

The municipal program should include structural and/ or non-structural BMPs. EPA encourages locally-based watershed planning and the use of preventative measures, including non-structural BMPs, which are generally lower in cost than structural BMPs, to minimize water quality impacts. Non-structural BMPs are preventative actions that involve management and source controls.

Examples of non-structural BMPs include policies and ordinances that result in protection of natural resources and prevention of runoff. These include:

- Requirements to limit growth to identified areas,
- Protect sensitive areas such as wetlands and riparian areas,
- Minimize imperviousness,
- Maintain open space, and
- Minimize disturbance of soils and vegetation.

Examples of structural BMPs include:

- Storage practices (wet ponds and extended-detention outlet structures),
- Filtration practices (grassed swales, sand filters and filter strips), and
- Infiltration practices (infiltration basins, infiltration trenches, and porous pavement).

System owners or operators have significant flexibility both to develop this measure as appropriate to address local concerns and to apply new control technologies as they become available. Since stormwater technologies are constantly being improved, EPA recommends that municipal requirements be responsive to these changes.

vi. **Pollution Prevention/Good Housekeeping for Municipal Operations.**

(6) Pollution prevention/good housekeeping for municipal operations. You must develop and implement a cost-effective operation and maintenance program with the ultimate goal of preventing or reducing pollutant runoff from municipal operations. Using training materials that are available from EPA, your State, or Tribe, or from other organizations whose materials are approved by the local government, your program must include local government employee training to prevent and reduce stormwater pollution from government operations, such as park and open space maintenance, fleet maintenance, planning, building oversight, and stormwater system maintenance.

(EPA recommends that, at a minimum, you consider the following in developing your program: maintenance activities, maintenance schedules, and long-term inspection procedures for structural and other stormwater controls to reduce floatables and other pollutants discharged from your separate storm sewers; controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, and waste transfer stations; procedures for properly disposing of waste removed from the separate storm sewer systems and areas listed above (such as dredge spoil, accumulated sediments, floatables, and other debris); and ways to ensure that new flood management projects assess the impacts on water quality and examine existing projects for incorporating additional water quality protection devices or practices. In general, the requirement to develop and implement an operation and maintenance program, including local government employee training, is meant to ensure that municipal activities are performed in the most appropriate way to minimize contamination of stormwater discharges, rather than requiring the municipality to undertake new activities.)

In the proposal, any NPDES permit issued to an owner or operator of a regulated small municipal separate storm sewer system must, at a minimum, require the owner or operator to develop and implement a cost-effective operation and maintenance/ training program with the ultimate goal of preventing or reducing pollutant runoff from municipal operations. EPA would encourage the owner or operator to consider the following in developing such a program:

- Maintenance activities, maintenance schedules, and long-term inspection procedures for structural and other stormwater controls to reduce floatables and other pollutants discharged from the separate storm sewers;
- Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, and waste transfer stations—including programs that promote recycling and pesticide use minimization;
- Procedures for the proper disposal of waste removed from the separate storm sewer systems and areas listed above in (2), including dredge spoil, accumulated sediments, floatables, and other debris; and
- Ways to ensure that new flood management projects assess the impacts on water quality and examine existing projects for incorporation of additional water quality protection devices or practices.

In general, the requirement to develop and implement an operation and maintenance program, including local government employee training, is meant to ensure that municipal activities are performed in the most appropriate way to minimize contamination of stormwater discharges, rather than requiring the municipality to undertake new activities.

- Proper operation and maintenance of the municipal separate storm sewer system and the stormwater pollution control structures is essential to the success of the management program

overall. The effective performance of this program measure would hinge on the proper maintenance of the BMPs utilized. Without proper maintenance, BMP performance declines significantly over time, with rates of decline varying by BMP type and site conditions. Additionally, BMP neglect may produce health and safety threats, such as structural failure leading to flooding, undesirable animal and insect breeding, and odors. Maintenance of structural BMPs could include activities to restore the integrity of infiltration control BMPs such as replacing upper levels of gravel; dredging of detention ponds; and repair of outlet structure integrity.

- Non-structural BMPs could also require maintenance over time. For example, educational materials might need to be updated periodically.
- EPA intends that controls for discharges from maintenance and storage yards listed above include controls for discharges from salt/sand storage locations and snow disposal areas operated by the municipality.
- EPA encourages coordination with flood control managers for the purpose of identifying and addressing the environmental impacts of existing and proposed flood management activities.
- Using existing stormwater pollution prevention training materials that could be available from the NPDES authorities or from other organizations whose materials are approved by the local government, the program would need to include local government employee training addressing these prevention measures in government operations (such as park, golf course and open space maintenance; fleet maintenance; planning, building oversight and stormwater system maintenance).

In developing this minimum program element, the Agency sought to identify existing practices and training as a means to avoid duplication of efforts and reduce overall costs. EPA also sought to emphasize those practices or programs designed and undertaken by municipalities to address non-stormwater problems that also have stormwater pollution prevention benefits. In addition, EPA designed this municipal program measure intending to create a streamlined version of the permit application requirements for medium and large municipal separate storm sewer systems described at 40 CFR 122.26(d)(2)(iv). The streamlined approach is intended to provide more flexibility for these smaller municipalities.

The proposed requirements provide for a consistent approach to control pollutants from operation and maintenance among medium, large, and regulated small municipal separate storm sewer systems. By implementing a cost-effective operation and maintenance program, the municipal storm system owner or operator would serve as a model for the regulated community. Furthermore, the establishment of a long-term training and maintenance program could result in cost savings for the owner or operator by minimizing possible damage to the system from floatables and other debris and, consequently, reducing the need for repairs. The proposed minimum measure, which originated with members of the Stormwater Phase II FACA Subcommittee, is similar to the requirements of the existing stormwater program.

**vii. Satisfaction of Minimum Measure Obligations.**

*Sec. 122.35 As an owner or operator of a regulated small municipal separate storm sewer system, what if another governmental or other entity is already implementing a minimum control measure in my jurisdiction?*

(a) You may rely on another entity to satisfy your NPDES permit obligations to implement a minimum control measure if: the other entity is implementing the control measure; the particular control measure, or component thereof, is at least as stringent as the corresponding NPDES permit requirement; and you have requested, and the other entity has agreed to accept responsibility for implementation of the control measure on your behalf to satisfy your permit obligation. You must note in your Sec. 122.34(f)(3) reports when you are relying on another entity to satisfy your permit obligations. You remain responsible for compliance with your permit obligations if the other entity fails to implement the control measure (or component thereof). Therefore, EPA encourages you to enter into a legally binding agreement with that entity if you want to minimize any uncertainty about compliance with your permit.

(b) Where appropriate, the NPDES permitting authority may recognize existing responsibilities among governmental entities for the minimum control measures in your NPDES permit. (For example, a State or Tribe may be responsible for addressing construction site runoff and municipalities may be responsible for the remaining minimum control measures. You are not required to provide notice to the other governmental entity when your NPDES permit recognizes the entity and its existing responsibilities.) Where the permitting authority recognizes an existing responsibility for one or more of the minimum control measures in your permit, your responsibility to include such minimum control measure, or measures, in your stormwater management program is waived so long as the other governmental entity implements the measure consistent with the requirements of Sec. 122.34(b).

The proposal would allow regulated small system owners or operators to satisfy their NPDES permit obligations for a minimum control measure by having another governmental or other entity perform the measure under the following circumstances:

- The other entity is implementing the control measure;
- The particular control measure (or component thereof) is at least as stringent as the corresponding NPDES permit requirements.
- The owner or operator has requested, and the other entity has agreed to accept responsibility for, implementation of a particular control measure (or measures) on behalf of, and to satisfy, the owner or operator's municipal permit obligations.
- The owner or operator would need to specify in the § 122.34(f)(3) reports submitted to the NPDES permitting authority when the owner or operator relies on another person to satisfy the permit obligations.
- The owner or operator would remain responsible for compliance with the permit obligations if the entity fails to implement the control measure (or component thereof).
- EPA would encourage the owner or operator to enter into a legally binding agreement with that entity to minimize any uncertainty regarding compliance with the NPDES permit.
- The proposal also includes a provision that would allow the NPDES permitting authority to recognize existing responsibilities among governmental entities for the control measures in an NPDES permit. For example, a State may have an existing erosion and sediment control program that adequately addresses construction site discharges to regulated small municipal separate storm sewer systems.
  - The NPDES permitting authority in that State could draft the NPDES permit conditions such that the State is responsible for the construction site stormwater discharge control minimum measure.
  - When the NPDES permitting authority recognizes an existing responsibility in an NPDES permit, the permittee would not be obligated to notify the other governmental entity about the arrangement. Instead, EPA anticipates it would be the responsibility of the NPDES permitting authority to do so.

Assuming that no other existing programs meet the requirements of the other minimum control measures, the municipality would be responsible for implementing those remaining minimum measures. Where the NPDES permitting authority recognizes existing responsibilities for one or more of the minimum control measures in an NPDES permit, these responsibilities would be waived from a regulated small system's stormwater management plan and would remain waived as long as the other governmental entity implements the measure consistent with the proposed municipal program permit requirements at § 122.34(b).

### **2.3 Schedule for Implementation**

The proposed schedule for implementation begins with promulgation of the final rule by the USEPA, currently scheduled to take place shortly after signing on October 29, 1999. The State of Georgia will be required to modify its NPDES program accordingly either by March 1, 2000 (if statutory changes are not required) or by March 1, 2001 (if statutory changes are required). In either case, the permitting authority is required to issue a menu of best management practices (BMPs) for use by regulated small municipal separate storm sewer systems by March 1, 2001, and the State General Permit is to be issued by March 1, 2002. The dates for submittal of permit applications by regulated municipalities vary depending on the status of each municipality. For the City of Griffin, the submittal date would be either 60 or 180 days following notice that the General Permit has been approved (either May 1, 2002 or September 1, 2002). These dates are subject to revision based on changes that may occur in the final regulations. Since the publication date for the final regulations has been postponed from March 1, 1999, until October 29, 1999, it is possible that subsequent milestone dates may also be delayed for a period of eight months.

## **2.4 Application Requirements, Including Notice of Intent**

Section II(H)(3)(b) states that the owners of regulated small municipal separate storm sewer systems are to submit either a notice of intent to be covered under a general permit or an individual permit application, including the BMPs the municipality would implement and measurable goals for the six minimum control measures. The regulations direct the permitting authority to “pay particular attention to the BMPs and measurable goals identified for municipal systems that are located in impaired watersheds.” They also state that “where specific measurable goals to satisfy minimum control measures (illicit discharge detection and elimination, construction site stormwater runoff control, post-construction stormwater management in new development and redevelopment, and good housekeeping for municipal operations) are identified in a NOI, these goals would not constitute a condition of the NPDES permit, unless EPA or the State has provided or issued a menu of regionally appropriate, field-tested BMPs that it believes to be cost effective.” Measurable goals would be required for the other two minimum control measures (public education and outreach, and public involvement). The municipality is also required to submit a timetable including the month and year each of the minimum control measures would be implemented, including frequency of specific actions if appropriate. The State could allow the municipality up to five years from the date of permit issuance to fully develop and implement the program.

## **2.5 Record Keeping and Reporting**

Sections II(H)(3)(c)(i) and (ii) respectively deal with record keeping and reporting. Section (i) states that the NPDES permitting authority would be required to include at least the minimum appropriate record keeping conditions in each permit. Additionally, the NPDES permitting authority could specify that permittees develop, maintain, and/or submit other records to determine compliance with permit conditions. The municipality would need to keep these records for a minimum of three years but would not be required to submit records to the NPDES permitting authority unless specifically directed to do so. The municipality would be required to make the records, including the stormwater management program, available to the public at reasonable times during regular business hours (see 40 CFR 122.7 for confidentiality provision). The municipality would also be able to assess a reasonable charge for copying and to establish advance notice requirements, not to exceed two business days, for members of the public.

Section (ii) states that the municipality would be required to submit annual reports to the NPDES permitting authority for the first permit term. For subsequent terms, the municipality would need to

submit reports in years 2 and 4 unless the NPDES permitting authority requires more frequent reports.

The reports would need to include:

- Status of compliance with permit conditions and an assessment of the appropriateness of identified BMPs and progress for achieving measurable goals for each of the six minimum control measures,
- Results of information collected and analyzed, including monitoring data, if any, during the reporting period,
- A summary of what stormwater activities the permittee plans to undertake during the next reporting cycle, and
- Changes in any identified measurable goal or goals that apply to program elements.

### 3.0 STATE REGULATORY STATUS

Ogden personnel met with representatives of the Georgia Department of Natural Resources, Environmental Protection Division (GaEPD) on March 23, 1999. GaEPD is not willing to commit to permit requirements prior to review of the final regulations and development of potential changes.

GaEPD personnel offered opinions in two areas. First, their current intended approach of prioritizing stormwater-related activities within Phase II designated jurisdictions will emphasize actions related to water bodies identified in the State's current 303(d) list of impaired waters<sup>1</sup>. There are two classifications of impaired waters, those which "partially support" designated uses and those which are "not supporting" designated uses. Municipalities required to obtain a Phase II permit for a watershed that contains an impaired water body will likely be subject to additional Federal regulations establishing Total Maximum Daily Loads (TMDLs) of pollutants. TMDLs may require preparation of watershed management plans to allocate specific wasteloads among users and reduce overall loadings of selected pollutants below the TMDL established for the receiving water. The current TMDL regulatory program is under revision at the Federal level.

One water body on the "partially supporting" list, Potato Creek, lies within the City (GaEPD<sup>1</sup>). Biological and toxicological criteria were violated in Potato Creek due to multiple causes including non-point sources, urban runoff, and municipal sewage treatment discharge. These were to be addressed through a watershed protection strategy for the basin and through improvements to the City's Potato Creek Water Pollution Control Plant. The latter was reportedly under a compliance schedule to meet TRC (total residual chlorine) limits by May 14, 1999, and to meet other (unspecified) permit limits including one for whole effluent toxicity by May 14, 2000. There were no local water bodies listed as "not supporting" designated uses.

The second comment provided by GaEPD personnel pertained to co-permittees for Phase II activities. The State envisions a similar framework as that currently allowed under Phase I permitting. Where a county and municipality within a county are included in Phase II, they may join together to obtain a permit covering both jurisdictions. If they elect to do so the county will be the primary permittee with the municipality being the secondary permittee.

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<sup>1</sup> Georgia 1998 Lists of Water as Required by the Section 303(d) of the Federal Clean Water Act, Georgia Department of Natural Resources, Environmental Protection Division, December 22, 1998.

#### **4.0 CURRENT LOCAL PROGRAM STATUS**

The status of the City of Griffin Stormwater Management Plan was discussed in an interview with Mr. Brant Keller, Director of the City of Griffin Public Works and Stormwater Department, on April 15, 1999. Each of the six minimum control measures, including their respective mandatory and suggested program components described in Section 2.2 of this report, were reviewed and compared with City actions either currently in place or planned for future implementation by the City (Table 1). Sources of revenue available to the City in pursuing its stormwater management goals were also discussed. The comparison of proposed Federal regulations with current and planned status of the City's stormwater management program serve as the basis for the Action Plan presented in the following section.

## 5.0 NPDES PHASE II STORMWATER PERMITTING ACTION PLAN

### 5.1 General Comments

The Phase II Action Plan provides a logical basis for three items. These include:

- Development of a comprehensive stormwater management program that establishes goals for the City and addresses each of the minimum control requirement mandatory program components as well as selected suggested program components;
- Development of detailed information that will likely be required in the City's NPDES Phase II Permit Application; and
- Assisting the City in planning for and preparing the permit application. (The planning process will continue following City acceptance of the Phase II Action Plan, using the Plan as a guidance document.)

Griffin has adopted an overall stormwater program mission statement that is designed to accomplish the following seven foundational goals within the context of the local government's authority and willingness to develop activities and programs to carry out the mix of the seven foundational goals:

- Protect life and health
- Minimize property losses
- Enhance floodplain use
- Ensure a functional drainage system
- Protect and enhance the environment
- Encourage aesthetics
- Guide development.

Based on these foundations, the following mission statement was adopted by the City:

*The mission of the City of Griffin's stormwater management program is to develop, implement, operate, and adequately and equitably fund the acquisition, construction, operation, maintenance, and regulation of stormwater drainage systems. The program shall safely and efficiently control runoff, enhance public health and safety, facilitate mobility and access to homes and businesses during and after storm events, protect lives and property, complement and support other City programs and priorities, eliminate the discharge of pollutants to receiving waters, and enhance the natural resources of the community.*

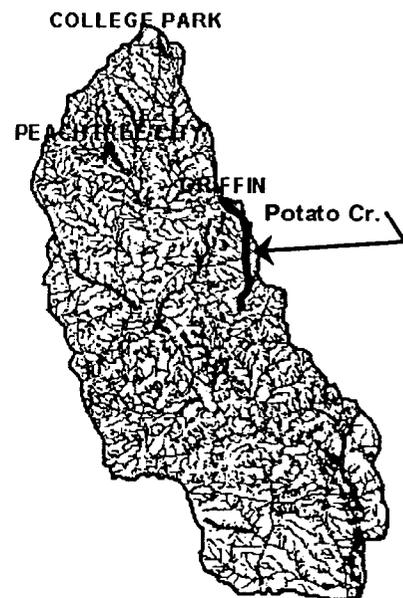
The stormwater quality program to meet NPDES Phase II regulatory requirements is designed to be in conformity with this mission statement.

## 5.2 Phase II Action Plan

The following Action Plan consists of addressing the six Phase II minimum control measures described in detail in Section 2.2 of this report. These measures, their respective mandatory and suggested program components, and the current status of related City programs as described by Mr. Brant Keller are provided in Table 1.

In addition to stipulating minimum control measures for stormwater, the proposed regulations require that the owner/operator of a small municipal storm sewer system submit annual reports to the permitting authority for the term of the first five-year permit. For subsequent permit terms, reports are required in years 2 and 4 unless directed otherwise by the permitting authority. With the initial permitting requirements and annual reporting requirements in mind, Ogden recommends that City actions directed toward all aspects of stormwater management be documented and maintained in a central filing system. Such a filing system should be designed to provide ready access to supporting documentation that may be required for the Phase II permit application and annual reports.

State permit writers have provided their opinion that 303(d) listed streams will be a primary focus where impairment is related to stormwater. Twenty-two miles of Potato Creek, part of the Upper Flint River watershed (see Figure at right), are on the State 303(d) list for toxics and biological impairment. The sources cited for this impairment are both the City of Griffin wastewater treatment plant and urban runoff. Therefore, Potato Creek should be one of the focal points of Griffin's urban stormwater program, so the City may address the role urban runoff might play in that stream's impairment.



## ***Minimum Control Measure 1.***

### ***Public Education and Outreach on Stormwater Impacts***

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#### **DISCUSSION:**

The overall thrust of the EPA program is to ensure that stormwater related educational efforts adequately reach all types or categories of citizens within the community, and that special emphasis is placed on intercepting those sources of pollution particular to Griffin and its waters. EPA believes that as various sectors of the community are educated and informed, their support for program initiatives will grow.

There is a single **mandatory** component requiring implementation of a public education program to distribute educational materials to the community, *or* conduct equivalent outreach activities regarding the impacts of stormwater discharge on water bodies and steps that can be taken to reduce stormwater runoff.

The actions Griffin has taken and should take should address the types of pollutants generated by a typical homeowner, as well as by specific types of activities. A two-pronged approach seems warranted:

1. Focus general education on all residents to raise the level of understanding and support for the stormwater program and for pollution reduction; and
2. Focus on those sectors and land uses that have the potential to generate greater amounts of pollution or specific types of pollution of concern (especially in Potato Creek).

#### **GOALS:**

To develop public support for stormwater management activities and facilitate compliance with regulatory requirements by educating the general public regarding the impacts of stormwater on aquatic resources, by empowering citizens to take individual voluntary actions that may improve stormwater quality, and by educating specific categories of polluters in ways they can reduce their pollution to Griffin's streams.

#### **CURRENT ACTIVITIES:**

Action items the City has already taken to address this minimum control measure include:

- Adoption and implementation of the *WaterWise* educational program for public school students in grades K through 12 (This program has been extended to all public schools in the surrounding county. A specific program goal is to educate all students regarding the need for stormwater management.);

- Development of an educational video describing the need for and establishment of a stormwater utility, including water quality benefits;
- Development and implementation of a storm drain stenciling program;
- Development of a fish-shaped bulletin board/menu list of stormwater information. This is placed on residence doors during storm drain stenciling operations to inform local residents of the need for this activity and provide them a list of action items homeowners can undertake to protect water quality;
- Development of an educational booth that contains both printed educational materials and video presentations regarding stormwater management. The materials used are compatible for distribution to general audiences; and
- Completion of one streamside neighborhood park volunteer cleanup project, during which stormwater-related educational games were acquired and distributed to young people assisting in this effort.

**OTHER SUGGESTED ACTIVITIES:**

It appears the general education and empowerment goals of the program are initially met through the above activities. There are some other items the City should consider that could be undertaken at low cost by taking advantage of current resources and/or communication methods. The goals of reaching/educating specific types of polluters and addressing potential pollutants they generate, as well as addressing specific stormwater pollutants of concern in Potato Creek, need to be more fully developed over the life of the permit.

Griffin has additional activities in the initial planning stages. Ogden recommends the City continue developing the action items listed above under “**CURRENT ACTIVITIES**”, and consider ongoing/additional activities that include:

- Completing production of two other planned videos (estimated completion in the year 2000) dealing with Stormwater Utility Activities and Illicit Discharges, including development of a public education plan to widely distribute/show the videos to target audiences;
- Expanding the neighborhood streamside park volunteer cleanup project by making this an ongoing program, perhaps sponsored by public school classes;
- Completing development of plans to train student volunteers in the basics of water conservation, and subsequently assist the City in conducting voluntary water use audits of local hotels to reduce unnecessary water consumption. While this program currently relates

to conservation of potable water supplies, the City may consider expanding this in the future to deal with stormwater related issues;

- Developing a list of active civic organizations that includes local minority groups, with a specific goal of tailoring the outreach program to address viewpoints and concerns of all communities, particularly minority and disadvantaged communities, as well as children;
- Maximizing use of the City's Stormwater Web Site to post educational materials and provide citizens and teachers with links to other web sites containing stormwater-related information;
- Maximizing distribution of educational video presentations through local cable access or public broadcasting channels;
- Teaming with local radio stations to promote stormwater management through periodic broadcast question and answer sessions;
- Enhancing distribution of selected educational materials to the general public by including mailouts with stormwater utility bills to minimize distribution costs;
- Identifying and targeting specific categories of polluters of concern in the community (e.g. preparation of educational materials regarding BMPs and illicit connections that target local gas stations, industrial sites, and other selected businesses); and
- Developing an ongoing program of obtaining and assessing stormwater-related informational and educational materials from a variety of sources, including tailoring these for use by the City to target individuals and homeowners (i.e. septic system use and maintenance, used oil disposal, household hazardous waste disposal, herbicide/ pesticide/ fertilizer use, etc.), as well as local businesses that may contribute stormwater pollutants.

## ***Minimum Control Measure 2.***

### ***Public Involvement and Participation***

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#### **DISCUSSION**

This Minimum Control Measure is designed to support the public education component described in Minimum Control Measure 1 by:

- Ensuring adequate public notice be provided by municipalities regarding stormwater related activities;
- Developing and implementing formal procedures designed to provide organized citizen input to the decision making process; and
- Empowering citizens and citizen organizations, to enhance community support for City activities related to stormwater management.

There is a single **mandatory** component that the City must comply with State and local public notice requirements. There are also three *suggested* components:

1. Inclusion of the public in developing, reviewing, and implementing the City stormwater management program;
2. Efforts to involve all economic and ethnic groups in the public participation process, and
3. Development of a formalized citizen work group to participate in decision making, hold public hearings, and work with volunteers.

#### **GOALS:**

Griffin should focus on development of stormwater programs that empower various stakeholders within the City and foster citizen support and cooperation for stormwater management programs. The specific goals of this minimum control measure are to: (1) ensure that public notice requirements are met, and (2) that citizens have both a voice and involvement in the ongoing stormwater program, so that they feel they have a stake in the success in the program and a sense of ownership.

#### **CURRENT ACTIVITIES:**

At a minimum, the City will need to develop sufficient public notice actions to be in compliance with NPDES public notice permit requirements. The City may also want to develop public notice procedures in support of ongoing programs such as advertising citizen's group meetings, public and informational meetings, etc. To document compliance with this component, the City should:

- Describe and document public notice procedures for stormwater-related activities;
- Maintain documentation (i.e. copies of news releases and public notice ads) of public notices for stormwater-related ordinances and other noticed actions.

**OTHER SUGGESTED ACTIVITIES:**

The following items regarding the three *suggested* components of this minimum control measure are being considered by the City:

- The City is in the process of developing a standing stakeholders group. There are six main basins (39 sub-basins) within the City. One alternative is to have a homeowner, commercial representative, and developer appointed from each of the six basins. A second alternative under consideration is to have one homeowner from each of the six basins, plus one City-wide developer, commercial landowner, and industrial landowner to represent these stakeholders groups. This stakeholders group will serve as the City's formalized citizen work group to participate in decision making, hold public hearings, and work with volunteers.
- The City plans to select an existing minority group to interface with City stormwater staff and other stakeholders.

The City should continue efforts pertaining to formation of a standing stakeholders group (citizen work group). We suggest this group be broadly-based, involving representatives from business, developers, minorities, renters, landlords, flooded individuals, non-profit organizations, etc., as well as the geographic representation. In doing so, the City should consider:

- Describing committee makeup and method of selecting committee members,
- Describing and defining the duties, responsibilities, and powers of the committee,
- Describing how committee input is provided to elected officials and City personnel,
- Describing methods of funding committee activities and providing support staff,
- Determining if issuance of a formal charter by City government is desirable, and
- Maintaining documentation of stakeholder group development and subsequent group activities and actions.

### ***Minimum Control Measure 3.***

#### ***Illicit Discharge Detection and Elimination***

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##### **DISCUSSION:**

The primary thrust of this Minimum Control Measure is to identify and eliminate illicit discharges to the City stormwater system. There are four **mandatory** program components to achieve this goal. EPA has also made two suggestions pertaining to the program.

The **mandatory** components require:

1. Development of a storm sewer system map, or equivalent, showing locations of major pipes, outfalls, and topography. In addition, if data already exist, *(the City is to)* show areas of concentrated activities likely to be a source of stormwater pollution;
2. Effective prohibition of illicit discharges to the City storm sewer system through ordinance, order, or similar means (to the extent allowable under State law), including implementation of appropriate enforcement procedures and actions;
3. Implementation of a plan to detect and address illicit discharges, including illegal dumping, to the City storm sewer system; and
4. Actions to inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of wastes.

The *suggestions* include:

1. Development of recycling or other public outreach programs to address potential sources of illicit discharges, including used motor oil, antifreeze, pesticides, herbicides, and fertilizers, and
2. Implementation of a program to address discharges or flows from other identified sources, and assess whether such discharges or flows should be identified as significant sources of pollutants.

##### **GOALS:**

The goals of this minimum control measure are to ensure, to the maximum extent practicable, that illicit discharges contributing pollutants to the City's stormwater system are identified and corrected; to prohibit such discharges; to detect and address any such future discharges; and to educate the public regarding the detrimental water quality impacts of illicit discharges to the storm sewer system.

**CURRENT ACTIVITIES:**

The City has already taken three steps that will contribute toward compliance with this minimum control measure. These include:

- Implementation of a program to inventory components of the storm sewer system,
- Development of a Stormwater Problem Reporting form that has been posted on the City's stormwater web site, and
- A stormwater system stenciling program that will assist in public education. (Staff personnel are to stencil each stormwater inlet structure within the City, reminding citizens not to dump non-stormwater materials into the inlets, and local volunteers will be recruited to repeat stenciling on a three to four-year cycle).

Public education/outreach directed toward limiting stormwater pollutants and detecting and reporting illicit discharges will be an expected result of this stenciling program.

**OTHER SUGGESTED ACTIVITIES:**

Several other items related to this minimum control measure are in planning stages by the City, and should be pursued during or before the first five-year permit cycle. These include the following **mandatory** components:

- Development and implementation of an ordinance prohibiting illicit discharges to the stormwater system, including inspection and enforcement mechanisms (perhaps incorporated into an overall stormwater management ordinance);
- Development and implementation of a program to detect and address illicit discharges to the stormwater system, including plans to perform a dry weather screening and have City stormwater staff conduct periodic inspections of stormwater facilities to detect illicit connections and discharges; and
- Development of a program (coordinated with the first two minimum controls) to inform citizens and businesses of the hazards associated with illegal discharges and improper disposal of wastes .

The comprehensive program to detect and eliminate illicit discharges should include such things as:

- Describing the illicit discharge detection program and ongoing efforts on the part of City employees and citizen volunteers to identify illicit discharges, including:
  - Describing how complaints are routed, recorded, and handled by the City, and

- Developing a central file of related information, including frequency and number of inspections, complaints received, and actions taken to investigate and resolve individual complaints;
- Development of a program to undertake evaluation of point-source discharges from local businesses, including identification of outfalls, periodic audits of local businesses for compliance with provisions of stormwater pollution prevention plans, and development of educational materials for local businesses directed toward point and non-point source abatement; and
- Describing evaluation and audit procedures for local businesses, including City and business responsibilities, frequency of inspections, notification of non-compliance, record keeping, and correction of problems associated with both point sources and stormwater.

Additional planned actions regarding these activities should include:

- Documenting all actions and activities sufficient for reporting under NPDES;
- Developing procedures to incorporate new construction and BMPs in the stormwater inventory database;
- Completion of storm sewer inventory maps in a format sufficient for inclusion with the Phase II permit application, and development of provisions to include updated inventory maps in annual permitting reports;
- Describing the stormwater system stenciling program, including how the program will serve as the basis for public/stakeholder outreach efforts to assist the City in identifying and eliminating illicit discharges to the stormwater system;

## ***Minimum Control Measure 4.***

### ***Construction Site Stormwater Runoff Control***

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#### **DISCUSSION:**

The primary thrust of this program is to ensure that construction sites control on-site erosion and sedimentation during construction activities, and limit exposure of stormwater to pollutants. There are four **mandatory** and no *suggested* components of this minimum control measure. The **mandatory** components are:

1. Development, implementation, and enforcement of a program to reduce pollutants in stormwater runoff to the City storm sewer system from construction activities that result in land disturbance greater than or equal to one acre;
2. Development and implementation of an ordinance or other regulatory mechanism to control erosion and sedimentation to the maximum extent practicable and allowable under State law;
3. Requirements for construction site owners or operators to implement appropriate BMPs (i.e. silt fences, temporary detention ponds, hay bales, etc.); and
4. Pre-construction review of site management plans, regular inspections during construction, penalties to ensure compliance, and formal procedures for receipt and consideration of information and inquiries submitted by the public.

#### **GOALS:**

The goal of this minimum control measure is to reduce pollutants in stormwater runoff from construction sites to the maximum extent practicable (and to meet State requirements) through implementation and enforcement of local regulatory programs and ordinances designed to provide pre-construction site plan review, implementation of appropriate BMPs, compliance inspections during construction, and provisions for receipt, investigation, and resolution of citizen complaints.

#### **CURRENT ACTIVITIES:**

The City has developed and adopted an ordinance dealing with stormwater runoff from construction activities. This ordinance includes a description of the City's construction site stormwater management program, responsibilities, and enforcement authorization, which are already developed and in place.

**OTHER SUGGESTED ACTIVITIES:**

The City should:

- Review and amend the current stormwater ordinance to ensure compliance with the requirements of this Minimum Control Measure, as well as provisions of other minimum control measures that may require adoption of a City enabling ordinance to authorize regulatory and enforcement programs and internal policies and procedures;
- Develop and document internal policies and procedures related to implementation of the ordinance, and
- Maintain a copy of the amended ordinance and internal policies and procedures adopted to implement the ordinance, including the history of development and documentation of public notice.

**NOTE:** Other minimum control measures described in the proposed regulations may also require development and implementation of ordinances by the City to authorize regulatory and enforcement programs, as well as internal policies and procedures, pertaining to stormwater management. These are not repeated in this section dealing with Minimum Control Measure 4, which addresses only active construction sites. Ogden recommends that City stormwater personnel and the City Attorney review these other regulatory requirements, and develop, adopt, and/or revise ordinances as may be required from a legal perspective.

## ***Minimum Control Measure 5.***

### ***Post-Construction Stormwater Management in New Development and Redevelopment***

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#### **DISCUSSION:**

The purposes of this Minimum Control Measure is to ensure that land development and redevelopment projects meet stormwater BMP requirements, and that structural and non-structural BMPs are maintained in functional condition so that removal of stormwater pollutants is not compromised. In order to accomplish this the City will need to undergo a major reorientation in its development methods and approach. The approach will need to begin to incorporate full consideration of water quality impacts of development from the initial planning stages through post-construction maintenance and operation. This reorientation will affect the zoning ordinance, sub-division regulations, the comprehensive planning process, construction site plan review and inspections, design criteria and guidance, the use of regional BMPs, and master plan implementation. This will be a long-term process of change that needs to be masterminded and appropriately guided every step of the way. There will be a great need for consensus building and public education. Many localities have already gone through this process, proving it can be accomplished successfully.

Development of a complete description of this Minimum Control Measure is not possible at this time without much more detailed discussions. However, the main points contained within this Measure will be briefly discussed.

There is one, programmatic **mandatory** component and a lengthy set of suggestions for this minimum control measure. The **mandatory** component includes development of a complete post-construction BMP-based water quality program including:

1. Development, implementation, and enforcement of a program to address stormwater runoff from new development and redevelopment projects that result in land disturbance of greater than or equal to one acre and that discharge to the City storm sewer system;
2. Implementation of site-appropriate and cost-effective structural and non-structural BMPs,
3. Provisions ensuring adequate long-term BMP operation and maintenance; and
4. Inclusion of in-place controls that would prevent or minimize water quality impacts.

*Suggestions* include:

1. Consideration of water quality at the inception of development or redevelopment projects;
2. Use of locally-based watershed planning and preventative measures, including non-structural BMPs, to minimize water quality impacts and help contain costs associated with structural BMPs; and
3. That post-development stormwater conditions not differ from pre-development conditions in a way that adversely affects water quality.

**GOALS:**

The goal of this Minimum Control Measure is to minimize, to the maximum extent practicable, the discharge of pollutants from lands following development or redevelopment. This is to be accomplished through selective implementation of site-specific structural and non-structural BMPs and other potential in-place controls that are cost-effective, and through proper long-term maintenance.

**CURRENT ACTIVITIES:**

The City has undertaken the following actions:

- Developed and implemented two separate ordinances; an ordinance designed to maintain retention ponds in a functional state, and an ordinance dealing with retrofitting of redevelopment to comply with existing stormwater requirements (though current requirements do not include water quality requirements);
- The City intends to adopt, in whole or in part, the BMP manual currently under development by the Atlanta Regional Commission (anticipated publication date of November, 2000); and
- The City is in the process of implementing a watershed Master Planning effort to address stormwater-related issues City-wide, and is also in the process of developing a comprehensive land use plan that will integrate aspects of stormwater management.

**OTHER SUGGESTED ACTIVITIES:**

In order to be successful the program will need to include, to some extent, all of the following elements. Thus the City will need to develop and coordinate program aspects in each of these key areas. This will include the development of internal policies, educational materials, inter-staff coordination and education, etc. The City should also document all activities sufficient for permit application and annual update purposes.

1. Ordinance Controls
  - Review both existing ordinances (retention pond maintenance and retrofitting of redevelopment) for compliance with Phase II requirements and amend as needed, including addition of sections to require water quality monitoring and BMP facility maintenance following development.
  - Develop a comprehensive stormwater policy document concerning this minimum control that directs activities for the five-year permit term.
  - Develop and coordinate comprehensive stormwater ordinance language and incorporate it in appropriate places in sub-division regulations, zoning ordinances, etc.
2. Design Guidance and Criteria
  - Plan to adopt the ARC Manual when it becomes available.
  - Plan to develop a local addendum to the Manual outlining local differences and local implementation of aspects of the ARC Manual.
3. Dedicated and Adequate Funding
  - Insure adequate budget from the stormwater utility, and other sources, is available to implement the program.
4. Construction Site Plan Review and Inspection Training and Procedures
  - Develop construction site plan review and inspection procedures based on the revised ordinance and criteria.
  - Ensure incorporation of BMPs at the inception of the site design process through use of a checklist and sketch plan requirement.
  - Train inspectors in construction site plan review procedures.
5. Long Range Comprehensive Planning and Implementation
  - Incorporate changed criteria and ordinances in the master planning process.
  - Develop and implement policies on regional BMPs.
  - Develop master plans as appropriate.
  - Require major developments to perform “mini” masterplans for their sites to assess impacts and evaluate the proper use of BMPs.
  - Incorporate an identification of sensitive waters and floodplains, along with master plans, into the comprehensive long range land use plan.
6. Regional BMPs
  - Develop policies and a plan for the use of regional BMPs in places indicated by master planning or in “targets-of-opportunity” as new developments are submitted.
  - Construct and maintain regional BMPs and monitor performance.

7. Public Education and Training
  - Follow through with plans to implement a stormwater training program for local developers, contractors, and builders.
8. Incentives for Use of Non-Structural and Land Use Controls
  - Work with local legal and planning resources in development of land use control incentives such as tax breaks, transferable development rights, density trading, fast track PUDs, etc.
9. Maintenance Inspections and Enforcement
  - Develop and document plans to implement semi-annual review of stormwater facilities, to include maintenance that may be required by the landowner(s).
  - Develop and document an education component consisting of pamphlets and one video dealing with stormwater facility maintenance.
10. A Program for Preservation, Acquisition and/or Multi-Objective Use of Riparian And Sensitive Areas
  - Work with local planners, parks and recreation personnel, and elected officials in exploring the desire for riparian corridor parks and open space, the potential to use floodplain areas, and reclaim areas of flooding for such purposes in the long term.

## ***Minimum Control Measure 6.***

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

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#### **DISCUSSION:**

The purpose of this Minimum Control Measure is to ensure that municipalities plan and implement good housekeeping procedures to limit introduction of pollutants that might result from municipal activities to stormwater, and to educate municipal employees in this area. There are two **mandatory** and four *suggested* components of this minimum control measure.

**Mandatory** components include:

1. Development and implementation of a cost-effective operation and maintenance program with the ultimate goal of preventing or reducing pollutant runoff from municipal operations; and
2. Training of City employees, using available training materials approved by the City, to prevent or reduce stormwater pollution from government operations such as park and open space maintenance, fleet maintenance, planning, building oversight, and stormwater system maintenance.

*Suggested* program components include:

1. Maintenance activities, maintenance schedules, and long-term inspection procedures for structural and non-structural BMP;
2. Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, and waste transfer stations;
3. Procedures for properly disposing of waste material (i.e. dredge spoil, accumulated sediments, floatables, and other debris) from the storm sewer system and areas mentioned in the preceding blocks; and
4. Measures to ensure that new flood management projects assess impacts on water quality, and that existing projects be examined to incorporate additional water quality protection devices or practices.

#### **GOALS:**

The goals of this minimum control measure are to minimize, to the maximum extent practicable, discharge of pollutants from municipal operation and maintenance programs to the municipal storm

sewer system, and to educate municipal employees regarding techniques to prevent or reduce stormwater pollution resulting from municipal activities.

**CURRENT ACTIVITIES:**

The City has:

- Three street sweepers that run regularly scheduled routes,
- Developed and implemented a plan to increase storm drain line cleaning activities using a new JetVac truck purchased in 1999, and
- Developed and implemented a program for addressing stormwater system maintenance complaints received from citizens, including complaint tracking and resolution.

The City is in the process of:

- Constructing new vehicle wash racks at City facilities that will minimize contact with stormwater;
- Developing an operations manual for stormwater, to be supplemented with employee training consisting of slide presentations; and
- Developing a program of periodic routine inspection and maintenance of the City stormwater system.

In addition to increasing street sweeping activities and storm drain line cleaning, the City has obtained a grant from the Georgia Department of Transportation in the amount of \$840,000 to retrofit stormwater management controls and BMPs for roadway runoff from SR 16 to Potato Creek, a 303(d) listed stream.

The City should:

- Be prepared to attach copies of grants, work plans, and activities to the Phase II permit application. This material should include photographic documentation and available water quality data obtained under the terms of this grant; and
- Document other City actions regarding target areas indicated in this component.

**OTHER SUGGESTED ACTIONS:**

The overall direction of the program is for the City to audit all its activities and make changes to ensure that each activity is performed in a way to reduce or eliminate pollution. The City should develop documentation of all its activities sufficient for the permit application and for annual reporting. The program should have all of the following elements to be effective:

1. Environmentally sensitive maintenance procedures for all stormwater systems.
  - Assess stormwater system maintenance procedures to ensure they are done in an environmentally sensitive manner and develop appropriate changes to procedures.
2. Reduction of pollution from automotive related public land uses (roads, parking, maintenance yards, parking, etc.) and waste transfer locations.
  - Assess roadway and other maintenance procedures to ensure they are undertaken in an environmentally sensitive manner and develop appropriate changes to procedures.
  - Evaluate waste transfer stations to minimize contamination of stormwater with potential pollutants.
3. Proper disposal of waste removed from all systems and land uses listed above.
  - Develop guidelines for proper disposal of waste materials from the storm sewer system, including instructions for implementation and maintenance of records for waste removal and disposal.
4. Investigation into retrofitting and water quantity design practices and standards.
  - Investigate current major flood controls to determine if there is a way to retrofit them for water quality.
  - Assess current design criteria to see if they should be changed to better incorporate water quality.
  - Require that all major projects ensure consideration of water quality impacts.
5. Training and education of all employees in the proper execution of their current duties.
  - Collect, review and use training materials available from EPA and other sources.
  - Develop and describe operational training procedures, using available materials, for government employees, including target audiences, names of employees attending training sessions, topics, dates, and hours of training.

## **6.0 POTENTIAL STORMWATER MANAGEMENT FUNDING SOURCES**

Ogden explored potential ways for the City to generate revenues and contain program expenses related to compliance with Phase II stormwater permitting. Four general approaches were identified, including sharing permitting costs with other local governmental entities, methods for the City to internally generate revenue, potential sources of grants and loans, and use of existing educational materials.

### **6.1 Teaming with Other Local Governments**

Spalding County is not currently included in the current Phase II listing and is not, at present, subject to related permitting requirements. This provision would not apply to the City of Griffin at this time.

### **6.2 Potential Internal Sources of Revenue**

Several possible options exist for Phase II municipalities to generate revenue that could be applied to implementing the six minimum control measures specified in 40 CFR 122/126. Ogden has accessed several sources of information regarding these funding options, and has provided information described in the following subsections. This review was selective in nature, and does not represent a comprehensive search of applicable Georgia Codes (State statutes) or other legal requirements associated with funding options. This review does not serve, nor is it intended to serve, as a legal interpretation of funding requirements.

#### Stormwater Utility

A review of Georgia Codes was undertaken using the web site [www.counselquest.com/state.htm](http://www.counselquest.com/state.htm), which provides internet access to state and Federal legislation. A site search under Georgia Codes using the key words stormwater utility failed to identify any legislation specifically referencing formation of a municipal utility for this purpose.

It appears that municipalities may elect to create a "Stormwater Utility" by formal action of the local governing authority. However, creation of a Stormwater Utility must follow a prescribed path of implementation. The City of Griffin, Georgia, has been in the forefront in creating a Municipal Stormwater Utility in the State of Georgia. The City's web site ([www.griffinstorm.com](http://www.griffinstorm.com)) has several

items of interest. These include the following:

- *Legal Implications of Creating a Stormwater Management Utility* (by Andrew J. Whalen III; Mullins, Whalen and Sullivan; Griffin, GA)
- *City Ordinance No. 97-1* (creating the City's Stormwater Utility)
- *City Ordinance No. 97-8*, (adopting Stormwater Utility fees and credits)

### Special Purpose Local Option Sales Tax (SPLOST)

A review of Georgia Codes was also undertaken using the web site [www.counselquest.com](http://www.counselquest.com). A site search under Georgia Codes using the key words special purpose local option sales tax produced five statutory references:

- *Georgia Code Section 36-63-8* (discusses powers of authorities and revenue bonds)
- *Georgia Code Section 48-8-89* (discusses SPLOST)
- *Georgia Code Section 48-8-103* (discusses election requirements for SPLOST)
- *Georgia Code Section 48-8-111* (discusses legal notice requirements for SPLOST)
- *Georgia Code Section 50-15-1* (defines "Political Subdivision" and "Public Lawsuit")

### Stormwater System Development Charges

System development charges are best used in conjunction with other funding methods as a mechanism for balancing financial participation in the cost of services and facilities. They provide a funding mechanism through which owners of properties that develop in the future share in the cost of projects built in anticipation of their needs. Development charges can be described as a deferral mechanism through which a property owner's financial participation in a project is delayed until development that uses the additional capacity originally built into the system occurs.

### Impact Fees

Impact fees have been associated with a variety of public infrastructure components in Georgia. They are often popular with existing residents who wish to see developers pay for new capital facilities. Since the cost is shifted to developers, impact fees are often highly unpopular with the development sector. Impact fees must pass the "rational nexus" test and should only be used where:

- Impacts to be mitigated are specific rather than general,
- A consistent methodology is available for quantifying the impact,

- A separate accounting for each impact fee project can be maintained, and
- A mechanism exists for returning the unused portion of an impact fee after a mitigation period has passed.

Impact fees have come under close legal scrutiny. Georgia law requires that impact fee funds be earmarked for specific projects, expended relatively quickly and, if not spent for the stated purpose, must be returned to the developer. Impact fees cannot be used to improve an inadequate existing system to an adequate service level and may not be useful in correcting problems within developed watersheds.

### In-Lieu of Construction Fees

Many municipalities require construction of a stormwater detention facility for non-residential properties unless it can be demonstrated that construction of such a facility would adversely affect peak stormwater discharge rates downstream from the site. The In-Lieu of Construction Fee provides a funding mechanism whereby construction of numerous individual on-site detention basins or other stormwater conveyance structures can be waived, with developers contributing a fee to a fund to build a large, multi-parcel facility or make improvements in stormwater conveyance at locations remote from the development site. One drawback of this funding method is that the facility must be built ahead of the development and, therefore, an alternate funding source must be available.

### Special Stormwater System Service Charges

Municipalities may elect to directly levy fees (charges) for expenses incurred in providing certain services to property owners and Stormwater Utility customers. These expenses should be of a specific nature and not applicable to all properties. Examples include review of land development and redevelopment plans, review of proposed stormwater drainage systems, project permitting activities, project site inspections, and water quality monitoring for permit compliance.

A number of different methods of levying special assessments on benefited properties have been used throughout the United States for stormwater and flood control improvements. State legislation authorizes counties to use special assessments to fund stormwater management functions. Projects funded through special assessments must have a special benefit to the properties included in the assessment area, and charges for each parcel must be consistent with the relative benefit to each property.

Special assessment mechanisms are most often used for small local projects that serve a limited area and a limited constituency. This approach has several disadvantages - the foremost being that special assessments must be justifiable on the basis of direct and special benefit peculiar to the individual properties subject to the assessment. Localized capital improvements of benefit solely to adjacent properties are perhaps the best example. It would be difficult to establish a direct benefit to an upstream property owner for improvements made downstream of their property. Regional facilities may not withstand a challenge on their specific benefit to an individual property owner.

The City previously contracted with Ogden to develop an acceptable approach toward funding the Stormwater Utility. The report constituting the deliverables for this project, Stormwater Utility Service Charge, Credit Technical Manual, (Ogden Environmental and Energy Services, Inc., 1998), is incorporated by reference.

### Revenue Bonds

Municipal governments in Georgia are authorized by state legislation and the powers inherent in home rule authority to use bonding for capital improvements. A municipality may pay for capital improvements through annual budget appropriations or through bond sales, but annual revenues are sometimes insufficient to pay for major capital investments. Bonds are most commonly used to fund major capital improvements and acquisition of costly assets such as land and major equipment.

Two types of bonding are available, revenue bonding and general obligation bonding. General obligation bonding incurs a debt that has first standing with regard to the County's assets and is backed by its "full faith and credit." All revenues, including various taxes, may be used to service a general obligation debt. Revenue bonding is not backed by the full faith and credit of the County, and thus typically incurs a higher interest rate in the bond market. Revenue bonds require a funding source that the bond market deems adequate and reliable. A legally established Stormwater Utility with a dedicated funding source or sources may elect to market revenue bonds to finance capital improvements.

### **6.3 Potential Sources of Grants and Loans**

The following potential sources of grants and loans are available for consideration by municipalities. These may not be directly used to fund compliance activities associated with Phase II Stormwater Permitting, but may be applicable to ancillary actions that affect stormwater discharges.

### State Revolving Loan Fund

This program is administered through the Georgia Environmental Facilities Authority (GEFA). The purpose of the program is to provide low interest loans to local governments for non-point source programs “to complement a national effort to fund what is known as non-traditional projects.” All local governments are offered the opportunity to apply for available funds for qualifying projects. The City of Griffin has already done so, and funding in the amount of \$2,734,701 has been formally reserved for City stormwater facility improvements, with an additional \$206,500 having been encumbered for purchase of a JetVac sweeper truck. GEFA maintains a web site that contains program-related materials ([www.gefa.org](http://www.gefa.org)).

For additional information, contact:

Mr. Greg Mason, Program Manager  
Georgia Environmental Facilities Authority  
2090 Equitable Building  
100 Peachtree Street NW  
Atlanta, Georgia 30301-1911  
Phone: (404) 656-0938  
Fax: (404) 656-6416  
E-mail: [gmason@gefa.org](mailto:gmason@gefa.org)

### State Hazardous Mitigation Grant Program Fund

This program is administered through the Georgia Emergency Management Agency (GEMA). The purpose of the program is to provide funds to State and local governments for projects that reduce or eliminate the long-term risk to human life and property from the effects of natural hazards. Available funding is prioritized based on the greatest potential to reduce future disaster relief expenditures. All local governments are offered the opportunity to apply for available funds. GEMA maintains a web site that contains program-related materials ([www.state.ga.us/GEMA/](http://www.state.ga.us/GEMA/)).

For additional information, contact:

Mr. Terry K. Lunn, Division Director  
Georgia Emergency Management Agency  
P.O. Box 18055  
Atlanta, Georgia 30316-0055  
Phone: (404)635-7016  
Fax: (404) 635-7205  
E-mail: [tlunn@gema.state.ga.us](mailto:tlunn@gema.state.ga.us)

### 319(h) Grant Fund

Under Section 319(h) of the Clean Water Act, the USEPA awards a Nonpoint Source Implementation Grant to the GaEPD to fund eligible programs that support implementation of the Georgia Nonpoint Source Management Program. Federal matching funds for eligible local programs, if available, are 60 percent of the program cost. The remaining 40 percent, which can be either project funding or in-kind services, is borne by local government. Funding priority will be given to

- Projects which “encompass or support a *watershed management approach* and result in *measurable improvements in water quality*”
- Proposals for work “located in and benefiting watersheds identified on the 305(b) and 303(d) lists of waters which are partially or not supporting beneficial uses due to nonpoint sources of pollution”, and
- Proposals which “implement *Watershed Restoration Action Strategies* in areas identified by the State’s Unified Watershed Assessment as being “in need of restoration”. These areas, referred to as “*Category I – Watersheds in Need of Restoration*”, are those watersheds that “do not now meet, or face imminent threats of not meeting, clean water and other natural resource goals”.

Section 319(h) grants may fund a list of specific eligible activities that include education, enforcement, training, demonstration projects, and other activities. Grants may not be used “to fund project proposals resulting in the update and refinement of nonpoint source management programs and assessments”.

General guidelines, application forms, and USEPA guidance documents entitled *General Guidelines – Section 319(h) FY 1996 Grant – Nonpoint Source Implementation Grant* and *Nonpoint Source Program and Grants Guidance for Fiscal Year 1997 and Future Years*, and the publication entitled *Nonpoint Source Management in Georgia: An update of the Georgia Nonpoint Source Management Program*, are available from the Georgia Department of Natural Resources.

Funds appropriated for FY 1996 are being encumbered in 1999. The deadline for applications was March 31, 1999. Future funding of this grant program is contingent upon congressional appropriations.

For additional information contact:

Mr. Frank M. Carubba  
Georgia Department of Natural Resources  
Non-Point Source Program  
Floyd Tower East, Suite 1070  
205 Butler Street SE  
Atlanta, Georgia 30334  
Phone: (404) 657-9488  
Fax: (404) 657-7397  
E-Mail: [frank\\_carubba@mail.dnr.state.ga.us](mailto:frank_carubba@mail.dnr.state.ga.us)

#### Transportation Enhancement Activity Projects Grant Fund

The Georgia Department of Transportation (GDOT) administers grant funds provided to the State under provisions of the Federal Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21). Specifically included in this funding source are proposed projects dealing with “environmental mitigation to address water pollution due to highway runoff or reduce vehicle-caused wildlife mortality while maintaining habitat connectivity.” According to GDOT, “All projects must have a direct and substantial linkage to the intermodal transportation system. All projects must strengthen the cultural, aesthetic, and/or environmental aspects of the intermodal transportation system.”

Two forms are available from GaDOT; the first is *Transportation Enhancement Program for FY 2000 and FY 2001: Instructions for Applicants*, the second is the *Transportation Enhancement Application for FY 2000 and 2001*. Both documents are may be accessed in electronic format at the GDOT web site ([www.dot.state.ga.us/homeoffs/planning.www/tea/index/html](http://www.dot.state.ga.us/homeoffs/planning.www/tea/index/html)).

For additional information contact:

Mr. Steve Roberts  
Georgia Department of Transportation  
2 Capital Square  
Atlanta, Georgia 30334  
Phone: (404) 651-5327  
Fax: (404) 657-5227  
E-mail: [steve.roberts@dot.state.ga.us](mailto:steve.roberts@dot.state.ga.us)

The City of Griffin has already received a grant in the amount of \$840,000 from the Transportation Enhancement Program to fund stormwater activities associated with improving the quality of stormwater runoff from SR 16 in the Potato Creek drainage.

**Table 1. Minimum Control Measures and City Status Regarding Phase II Permitting**

**1. Public Education and Outreach on Stormwater Impacts**

The USEPA believes that as the public gains a greater understanding of the municipally developed stormwater management program, the municipality is likely to gain more support for the program (including funding initiatives). In addition, program compliance would probably be greater if the public understands the personal responsibilities expected of them and others. Well-informed citizens could even act as formal or informal educators to further disseminate information and gather support for the program, thus easing the burden on regulated municipalities to perform all educational activities. The State, USEPA, environmental organizations, or other public interest or trade groups may be able to provide educational materials, the use of which would be subject to approval of the owner or operator of the municipal separate storm sewer system.

<b>Phase II Permitting Component</b>	<b>Status of City Programs</b>	<b>Action Plan Discussion Items</b>
<b>Mandatory</b> implementation of a public education program to distribute educational materials to the community, <u>or</u> conduct equivalent outreach activities regarding the impacts of stormwater discharge on water bodies and steps that can be taken to reduce stormwater pollution.	The City has implemented the "WaterWise" educational program in City schools, grades K through 12. The program goal is to educate all City school classes regarding stormwater. This City program has been adopted in all local County schools. The City has adopted a fish-shaped bulletin-board/menu list of <i>Stormwater Do's and Don'ts</i> for use in area schools. This is also hung on doors of area homeowners during the stormwater system stenciling program. The City has developed an educational booth that contains both printed material and video capabilities for use with general audiences.	Define the scope of the WaterWise program, including development of a formal stormwater curriculum, teacher training, hours of planned classroom learning for each grade, other learning activities, etc. Attach WaterWise program description, along with a photograph and description of educational booth and associated materials, listing of "shows" attended and target audiences, etc., to the Phase II permit application.
<i>Suggested</i> use of existing stormwater-related educational materials produced by the State or other entities, subject to approval by the City.	The City has obtained stormwater-related educational materials from a variety of sources, and is adapting these for distribution. Additional materials are periodically obtained and reviewed.	List publications, sources, and intended distribution within the City. Attach to the Phase II permit application.
<i>Suggested</i> development of educational materials targeting individuals and homeowners (i.e. septic system use and maintenance, used oil disposal, household hazardous waste disposal, herbicide/pesticide/fertilizer use, etc.)	The City has produced one educational video describing creation of a stormwater utility. <i>Two other videos are in production with estimated completion in the year 2000 (what the stormwater utility does and illicit discharges).</i>	Describe the content of each video, and how educational videos will be distributed and shown to target audiences. Obtain and review additional targeted material for applicability and distribution. Attach list of City educational materials to Phase II permit application.

<p><i>Suggested</i> startup of local stream restoration activities that include public participation components such as stream cleanup days, stream watch groups, etc.</p>	<p>One streamside neighborhood park volunteer cleanup has been completed. Stormwater-related educational games were acquired and distributed to young people assisting in this effort. <i>The City is in the process of redefining the level of service it will provide to stormwater utility customers.</i></p>	<p>The City is assessing the results of the cleanup effort, and is prioritizing other areas where this approach may have implementation potential. Describe level of service provided stormwater utility customers and stream restoration and cleanup efforts, and attach to Phase II permit application.</p>
<p><i>Suggested</i> development and distribution of stormwater-related educational materials to commercial, industrial, and institutional entities likely to have significant stormwater impacts.</p>	<p><i>The City plans to train students in the basics of water conservation, and subsequently assist them in conducting voluntary water use audits of local hotels to reduce unnecessary water consumption. The City is preparing educational materials regarding BMPs and illicit connections that target local gas stations. Educational materials for other businesses will follow.</i></p>	<p>The City will develop a listing of additional educational materials needed to target other selected user groups and stakeholders. A listing of educational materials and copies will be attached to the Phase II permit application.</p>
<p><i>Suggested</i> tailoring of the outreach program to address the viewpoints and concerns of all communities, particularly minority and disadvantaged communities, as well as children.</p>	<p>The City has developed a listing of local minority groups.</p>	<p>The City will enter discussions with minority groups, and will select a single group to partner with in a minority community outreach program directed toward stormwater management. Attach documentation of selection activities to the Phase II permit application.</p>

**2. Public Involvement and Participation**

Public involvement is an integral part of the municipal stormwater program. The USEPA believes that the public can provide valuable input and assistance to the municipality's stormwater program. The advantages of active public involvement could include reduced pollutant loadings, increased program support, and vigilant protection of waterbodies. The USEPA strongly believes that the overall benefits of an aggressive and inclusive program, including involvement of low-income and minority communities, is an essential component of a municipal stormwater management program. Public participation ensures a more successful stormwater management program by providing valuable expertise and a conduit to other programs and governments, which would be of primary importance if the municipal stormwater management program is to be implemented on a watershed basis.

<b>Phase II Permitting Component</b>	<b>Status of City Programs</b>	<b>Action Plan Discussion Items</b>
<p><b>Mandatory</b> compliance with State and local public notice requirements.</p>	<p><i>The City is in the process of developing public notice requirements that comply with State and local requirements.</i></p>	<p>Describe public notice procedures for various stormwater-related activities. Include certification of compliance with legal requirements by the City Attorney. Attach documentation to Phase II permit application.</p>

<u>Suggested</u> inclusion of the public in developing, reviewing, and implementing the City stormwater management plan.	<i>The City is in the process of developing a standing stakeholders group. There are six main basins (39 sub-basins) within the City. One alternative is to have a homeowner, commercial representative, and developer appointed from each of the six basins. A second alternative would be to have one homeowner from each of the six basins, plus one City-wide developer, one commercial landowner, and one industrial landowner to represent these stakeholders groups.</i>	Describe committee makeup and method of selection for committee members. Describe duties, responsibilities, and powers of the Committee. Describe how committee input is provided to decision makers. Describe methods of funding committee activities and providing support staff. Determine if legal notice is required, formal charter by City government, and other legal aspects of establishing a formal Committee. Attach copies of documentation to Phase II permit application.
<u>Suggested</u> efforts to involve all economic and ethnic groups in the public participation process.	<i>The City will attempt to select an existing minority group to interface with staff and other stakeholders.</i>	Select group or groups to represent minority interests. Describe selection process and group(s) selected to represent minority communities. Attach documentation to Phase II permit application.
<u>Suggested</u> formalized citizen work group to participate in decision making, hold public hearings, and work with volunteers.	The proposed stakeholders group defined in Block 2 (above) would serve as the City's formal citizen work group.	Same as Block 2 (above).

### **3. Illicit Discharge Detection and Elimination**

Discharges from stormwater drainage systems often include wastes and wastewater from non-stormwater sources. The USEPA Nationwide Urban Runoff Program (NURP) indicated that many stormwater outfalls still discharge during substantial dry periods. Pollutant levels in these dry weather flows were shown to be high enough to significantly degrade receiving water quality. The illicit discharge detection and elimination program would not necessarily need to address all types of non-stormwater discharges. The USEPA has listed general categories of non-stormwater discharges or flows that would need to be addressed only in those municipal stormwater programs where such discharges are identified as significant contributors of pollutants.

<b>Phase II Permitting Component</b>	<b>Status of City Programs</b>	<b>Action Plan Discussion Items</b>
<b>Mandatory</b> development of a storm sewer system map, or equivalent, showing locations of major pipes, outfalls, and topography. In addition, if data already exist, show areas of concentrated activities likely to be a source of stormwater pollution.	<i>The City has implemented a program to inventory components of the storm sewer system.</i>	Describe inventory program and provide suggested timetable for completion. Describe long-term efforts to incorporate new construction and BMPs in the inventory database. Attach inventory maps to Phase II permit application.
<b>Mandatory</b> effective prohibition of illicit discharges to the City storm sewer system through ordinance, order, or similar means (to the extent allowable under State law), including implementation of appropriate enforcement procedures and actions.	<i>The City is considering development of an ordinance prohibiting illicit discharges to the stormwater system.</i>	Develop and implement an illicit stormwater discharge ordinance for the City by January 1, 2001. Attach copy of the ordinance, along with history of development and legal notice, with the Phase II permit application.

<p><b>Mandatory</b> implementation of a plan to detect and address illicit discharges, including illegal dumping, to the City storm sewer system.</p>	<p><i>The City will develop and implement a program to detect and address illicit discharges to the stormwater system.</i>  <i>Staff will conduct periodic inspections of these facilities to detect illicit connections and discharges.</i></p>	<p>Define program, including ongoing efforts on the part of City employees and citizen volunteers to identify illicit discharges, and describe how complaints are routed, recorded, and handled by the City. Attach documentation to Phase II permit application.</p>
<p><b>Mandatory</b> actions to inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of wastes.</p>	<p><i>The City will develop a program to inform those listed of the hazards associated with illegal discharges and improper disposal of wastes.</i></p>	<p>Define program, including past efforts and plans to continue this educational effort. Attach documentation to Phase II permit application.</p>
<p><u>Suggested</u> development of recycling or other public outreach programs to address potential sources of illicit discharges, including used motor oil, antifreeze, pesticides, herbicides, and fertilizers.</p>	<p><i>Staff personnel will stencil each stormwater structure within the City for identification purposes. Local volunteers will be recruited to repeat stenciling on a three to four-year cycle. Public education/outreach will be a component of this program.</i></p>	<p>The stenciling program will serve as the basis for public/stakeholder outreach efforts to assist the City in identifying and eliminating illicit discharges to the stormwater system. Describe the stenciling program and list outreach activities; attach this documentation to the Phase II permit application.</p>
<p><u>Suggested</u> implementation of a program to address discharges or flows from other identified sources, and assess whether such discharges or flows should be identified as significant sources of pollutants.</p>	<p><i>The City will conduct an evaluation of point-source discharges from local businesses, including identification of outfalls.</i>  <i>The City will conduct periodic audits of local businesses for compliance with provisions of stormwater pollution prevention plans.</i>  <i>The City will develop educational materials for local businesses directed toward point and non-point source abatement.</i></p>	<p>The City will describe evaluation and audit procedures, including City and business responsibilities, frequency of inspections, notification of non-compliance, record keeping, and correction of problems associated with both point sources and stormwater.  The City should describe the educational materials used and their method of distribution.  Documentation of these activities shall be attached to the Phase II permit application.</p>

#### **4. Construction Site Stormwater Runoff Control**

Over a short period of time, stormwater discharges from construction site activity can contribute more pollutants, including sediment, to a receiving stream than had been deposited over several decades. Stormwater runoff from construction sites can include pollutants other than sediment, such as phosphorus and nitrogen from fertilizer, pesticides, petroleum derivatives, construction chemicals, and solid wastes that may become mobilized when land surfaces are disturbed. Generally, properly implemented construction site ordinances are effective in reducing these pollutants. In many areas, however, the effectiveness of ordinances in reducing pollutants is limited due to either inadequate enforcement or incomplete compliance with such local ordinances by construction site discharges of stormwater. Not all construction site owners or operators properly maintain BMPs. For example, sediment traps and basins may fill up, and silt fencing may break or be overtopped. The USEPA acknowledges that many owners or operators of small municipal separate storm sewer systems already administer local erosion and sediment control programs. The USEPA believes that the proposed approach would recognize a municipality's flexibility in developing practical procedures to control construction site discharges within its jurisdiction, while still requiring an NPDES permit to ensure an appropriate base level of water quality protection. The USEPA also believes there is an appropriate role for the local permitting authority as well as citizens groups in ensuring that construction site owners and operators comply with the requirements of an NPDES permit.

Phase II Permitting Component	Status of City Programs	Action Plan Discussion Items
<p><b>Mandatory</b> development, implementation, and enforcement of a program to reduce pollutants in stormwater runoff to the City storm sewer system from construction activities that result in land disturbance greater than or equal to one acre.</p>	<p>The City has an existing ordinance dealing with stormwater runoff from construction activities. This ordinance includes a description of the City's program and responsibilities and enforcement authorization. <i>This ordinance is being reviewed and amended to comply with Phase II requirements.</i></p>	<p>Amend stormwater runoff ordinance as required. Attach copy of amended ordinance, including history of development and documentation of public notice, to Phase II permit application.</p>
<p><b>Mandatory</b> development and implementation of an ordinance or other regulatory mechanism to control erosion and sedimentation to the maximum extent practicable and allowable under State law.</p>	<p>See Above Ordinance.</p>	<p>See Above Ordinance.</p>
<p><b>Mandatory</b> programmatic control of other wastes at construction sites that may adversely impact water quality (i.e. discarded building materials, concrete truck washout, and sanitary wastes.)</p>	<p>Stormwater program controls and responsibilities are developed and in place, and are undertaken by the City's Stormwater Utility. <i>The enabling ordinance is being reviewed and amended to comply with Phase II requirements.</i></p>	<p>Amend ordinance and program controls as required. Attach copies, including history of development and documentation of public notice and City approval, to Phase II permit application.</p>
<p><b>Mandatory</b> program requirements for construction site owners or operators to implement appropriate BMPs (i.e. silt fences, temporary detention ponds, hay bales, etc.), pre-construction review of site management plans, regular inspections during construction, penalties to ensure compliance, and formal procedures for receipt and consideration of information and inquiries submitted by the public.</p>	<p>The City has developed and implemented program controls and responsibilities, to be undertaken by Stormwater Utility staff. <i>The ordinance governing these activities is being reviewed and amended to comply with Phase II requirements.</i></p>	<p>Amend ordinance and program controls as required. Attach copies, including history of development and documentation of public notice and City approval, to Phase II permit application.</p>

### **5. Post-Construction Stormwater Management in New Development and Redevelopment**

The NURP study and more recent investigations indicate that prior planning and designing for minimization of pollutants in stormwater discharges is the most cost-effective approach to stormwater quality management. Reducing the discharge of pollutants after the discharge enters a storm sewer system is often more expensive and less efficient than preventing or reducing the discharge of pollutants at the source. Increased human activity associated with development often results in increased discharge of pollutants. In addition, sediment and debris transport and deposition can directly impair aquatic life. If the parties involved consider water quality impacts from the beginning stages of projects, new development and possibly redevelopment allow opportunities for more water quality sensitive projects. Storm sewer system owners or operators have significant flexibility both to develop this measure as appropriate to address local concerns, and to apply new control technologies as they become available. Since stormwater technologies are constantly being improved, the USEPA recommends that municipal requirements be responsive to these improvements.

Phase II Permitting Component	Status of City Programs	Action Plan Discussion Items
<p><b>Mandatory</b> development, implementation, and enforcement of a program to address stormwater runoff from new development and redevelopment projects that result in land disturbance of greater than or equal to one acre and that discharge to the City storm sewer system.</p>	<p>The City has developed and implemented an ordinance designed to maintain retention ponds in a functional state and an ordinance dealing with retrofitting of redevelopment to comply with existing stormwater requirements. <i>Both ordinances will be reviewed and amended as needed to comply with Phase II permitting requirements.</i>  <i>The City plans to implement a stormwater training program for local developers, contractors, and builders.</i></p>	<p>Review both ordinances for compliance with Phase II requirements and amend as needed, including adding sections to require water quality monitoring. Attach copies, including history of development and documentation of public notice and City approval, to Phase II permit application. Describe training program including outreach efforts, content, legal requirements, and penalties for non-compliance. Attach copy to Phase II permit application.</p>
<p><b>Mandatory</b> plan to implement site-appropriate and cost-effective structural and non-structural BMPs and ensure adequate long-term BMP operation and maintenance.</p>	<p><i>The City intends to adopt the BMP manual currently under development by the Atlanta Regional Commission. The ARC plans an approximate publication date of November, 2000.</i></p>	<p>The City will obtain a copy of the ARC Manual, review the contents, and adopt this in whole or in part at the City level. This will be incorporated by reference in the Phase II permit application.</p>
<p><b>Mandatory</b> inclusion in program of in-place controls that would prevent or minimize water quality impacts.</p>	<p><i>The City is planning to implement semi-annual review of stormwater facilities, to include maintenance that may be required by the landowner(s).</i>  <i>The City is planning to develop an education component consisting of pamphlets and one video.</i></p>	<p>The City will develop procedures to implement semi-annual inspection of stormwater facilities. The City will revise existing educational material, as required, to meet Phase II criteria. The City will distribute this material (including a video) to target audiences. The City will attach documentation of these efforts to the Phase II permit application.</p>
<p><u>Suggested</u> that post-development stormwater conditions not differ from pre-development conditions.</p>	<p>The City currently requires that post-construction hydrology not differ from that existing prior to development.</p>	<p>Attach copies of requirements, including history of development and documentation of public notice and City approval, to Phase II permit application. Pursue development of additional requirements pertaining to maintenance of water quality following development.</p>
<p><u>Suggested</u> use of locally-based watershed planning and preventative measures, including non-structural BMPs, to minimize water quality impacts and help contain costs associated with structural BMPs.</p>	<p><i>The City has implemented a watershed assessment program, and is in the process of developing a comprehensive land use plan that includes stormwater components.</i></p>	<p>Attach copies of watershed assessment and comprehensive land use plan to Phase II application. Include history of development, documentation of public notice, and City approval.</p>

## 6. Pollution Prevention and Good Housekeeping for Municipal Operations

The requirement to develop and implement an operation and maintenance program, including local government employee training, is meant to ensure that municipal activities are performed in the most appropriate way to minimize contamination of stormwater discharges rather than requiring the municipality to undertake new activities. The provides for a consistent approach to control pollutants from operation and maintenance operations among regulated large, medium, and small municipal separate storm sewer systems. By implementing a cost-effective operation and maintenance program, the municipal storm sewer system owner or operator would serve as a model for the regulated community. Furthermore, establishment of a long-term training and maintenance program could result in cost savings for the owner or operator by minimizing damage to the system from floatables and other debris and, consequently, reducing the need for repairs.

Phase II Permitting Component	Status of City Programs	Action Plan Discussion Items
<p><b>Mandatory</b> development and implementation of a cost-effective operation and maintenance program with the ultimate goal of preventing or reducing pollutant runoff from municipal operations.</p>	<p>The City has developed and implemented a plan to clean storm drain lines using a new JetVac truck purchased in 1999.  <i>The City is in the process of constructing new vehicle wash racks at City facilities that will minimize contact with stormwater.</i>  <i>The City is in the process of increasing the effectiveness of street sweeping operations.</i></p>	<p>Describe plan, including documenting the number of hours spent street sweeping prior to and following plan implementation. Indicate annual cost associated with plan implementation, tons of material removed, and cost per ton.            Describe general construction requirements for wash racks, how wastewater is handled, and efforts to minimize contact with stormwater.            Attach documentation to Phase II permit application.</p>
<p><b>Mandatory</b> training of local government employees, using available training materials approved by local government, to prevent or reduce storm water pollution from government operations such as park and open space maintenance, fleet maintenance, planning, building oversight, and storm water system maintenance.</p>	<p><i>The City is in the process of developing an operations manual for stormwater. The City will supplement this with employee training consisting of slide presentations.</i></p>	<p>Describe operational training procedures, including target audiences and hours of training per year.            Attach description of training program, copy of operations manual, and slide presentation to Phase II permit application.</p>
<p><u>Suggested</u> program components include maintenance activities, maintenance schedules, and long-term inspection procedures for structural and non-structural BMPs.</p>	<p>The City has developed a program for addressing maintenance complaints received from citizens, including complaint tracking and resolution.  <i>The City will develop a program of periodic routine inspection and maintenance of the stormwater system.</i></p>	<p>Describe programs for complaint tracking and inspection/maintenance activities; attach documentation to Phase II permit application.</p>
<p><u>Suggested</u> program components include controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, and waste transfer stations.</p>	<p>The City has obtained a grant from the Georgia Department of Transportation in the amount of \$840,000 to retrofit stormwater management controls and BMPs for roadway runoff from SR 16 to Potato Creek, a 303(d) listed stream.</p>	<p>Attach copies of grant documents, work plans, and activities to the Phase II permit application. Include photographic documentation and available water quality data obtained under the terms of this grant.</p>

<p><i>Suggested</i> program components include procedures for properly disposing of waste material (i.e. dredge spoil, accumulated sediments, floatables, and other debris) from the storm sewer system and areas mentioned in the preceding block.</p>	<p><i>The City Stormwater Utility will develop guidelines for proper disposal of waste materials from the storm sewer system. This will be part of the City's program to detect and correct illicit stormwater discharges.</i></p>	<p>Develop guidelines and instructions for implementation, and include with Phase II permit application.</p>
<p><i>Suggested</i> program components include measures to ensure that new flood management projects assess the impacts on water quality, and that existing projects be examined to incorporate additional water quality protection devices or practices.</p>	<p><i>The City is being audited by CRS in June, 1999, with an expected submittal date of November, 1999. Otherwise, this suggested component will be addressed in Sections 4 (Construction Site Stormwater Runoff Control) and Section 5 (Post-Construction Stormwater Management)</i></p>	<p>Attach copy of CRS audit to Phase II permit application, if appropriate. Cite appropriate activities contained in Sections 4 and 5 of the permit application, as well as supporting documents dealing with this program component.</p>

Note: Information regarding Status of City Programs was provided by Mr. Brant Keller on April 15, 1999.