



STORM WATER MANAGEMENT PROGRAM PLAN

City of Graysville
Permit # ALR040038
February 2024

ABSTRACT

The Storm Water Management Program Plan (SWMPP) is a guidance document to direct the City of Graysville in complying with its General National Pollution Discharge Elimination System (NPDES) permit requirements.

City of Graysville
Jefferson County Department of Health
Storm Water Management Authority, Inc.

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General Information

Signatory Requirements

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Clark "Julio" Davis, Mayor

Signature

Date

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Overview

The City of Graysville's Storm Water Management Program Plan (SWMPP) is a guidance document to direct the city efforts in a timely manner to accomplish the requirements of the Permit. The SWMPP will be reviewed annually with a public comment period. If programmatic changes are made to the SWMPP, the updated version will be submitted to ADEM.

The City of Graysville, located within Jefferson County, has a construction site storm water runoff program to control erosion and sedimentation. This program is applicable to all construction sites regardless of size.

Program Background

In the 1987 amendments to the Clean Water Act (CWA), Congress directed the United States Environmental Protection Agency (EPA) to develop a phased approach to controlling storm water discharges under the National Pollutant Discharge Elimination System (NPDES) program. This action was based, in part, on growing evidence of the impact storm water from urban environments on water quality. According to the 2004 National Water Quality Inventory (a biannual report to Congress) roughly 40% of the Nation's waters were unable to fully support their designated beneficial uses (e.g. fishable, swimmable, etc.). The information provided by the states for the inventory indicates that 44% of the Nation's rivers, 64% of lakes, and 30% of estuaries and coastal waters are water quality impaired.

In 1990, EPA promulgated regulations for establishing water quality-based municipal storm water programs to address storm water runoff from certain industrial and construction activities and from medium and large municipal separate storm sewer systems (MS4s) serving populations of 100,000 or greater. These Phase I regulations were incorporated into the existing NPDES permit rules that address point source dischargers. As a result, urban nonpoint source runoff became regulated as a point source. In 1999, EPA promulgated regulations to address storm water runoff from small MS4s; these are Phase II regulations.

The Alabama Department of Environmental Management (ADEM) presently has primary jurisdiction over the permitting and enforcement of the Storm Water Program for Alabama. In 2011, the City of Graysville became a Phase II MS4 (General NPDES Permit No. ALR040037). The City joined Storm Water Management Authority, Inc. (SWMA) as a member city in 2013. Jefferson County Department of Health (JCDH) is on contract with SWMA to fulfill certain components of the storm water permit. On October 1, 2021, Graysville's reissued Phase II Permit became effective and will expire September 30th, 2026 **(Appendix A)**.

MS4 Characterization

The City of Graysville covers approximately 6.3 square miles. Population, as measured in the 2020 Census, is approximately 1,950 people with an overall population density of approximately 310 people per square mile. Municipalities immediately adjacent to the City of Graysville include the City of Adamsville (population of 4,366) to the south and the Town of Brookside (population of 1,253) to the northeast.

The land use in the City, based on the United States Geological Survey (USGS) data are as follows:

Industrial	~ 1%
Commercial	~ 3%
Residential	~ 17%
Rural	~ 79%

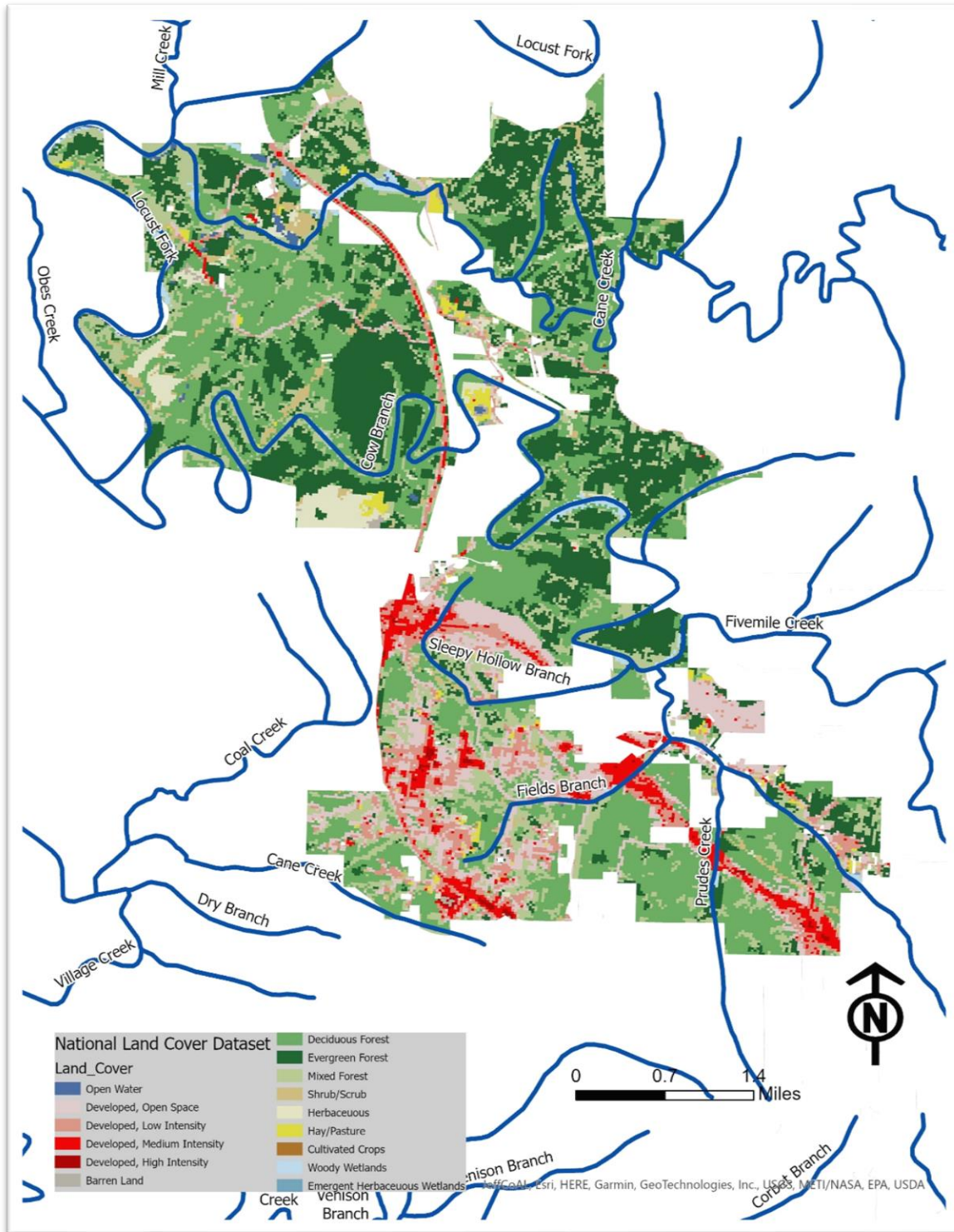
A map showing the corporate limits for the City of Graysville and the urbanized area is shown below.

The Graysville area receives approximately 55 inches of rainfall annually. Rainfall tends to be evenly distributed throughout the year with drier periods occurring during late summer and early fall. Storm water runoff from the City of Graysville discharges into six receiving streams:

- Cane Creek
- Coal Creek
- Fields Branch
- Fivemile Creek
- Prudes Creek
- Sleepy Hollow Branch

Currently Fivemile Creek is on the 303(d) list for pathogens (E. coli) but there is no approved total maximum daily load (TMDL). Water monitoring is not required at this time.

Graysville MS4 Urbanized Area



Storm Water Management Program Plan (SWMPP)

There are five minimum storm water control measures that are to be addressed by the storm water management program. They include the following:

1. Public Education and Public Involvement on Storm Water Impacts
2. Illicit Discharge Detection and Elimination (IDDE) Program
3. Construction Site Storm Water Runoff Control
4. Post-Construction Storm Water Management in New Development and Redevelopment
5. Pollution Prevention/Good Housekeeping for Municipal Operations

Each of the storm water control measures have numerous components or best management practices (BMPs) described in the permit to help the SWMP address these measures. The SWMPP is composed of these BMPs with a description of the measurable goals or methods to accomplish the BMP, a proposed schedule for the implementation, and the person(s) responsible to implement or coordinate the BMP.

Public Education and Public Involvement on Storm Water Impacts

The City of Graysville must develop a public education and outreach program to inform the public about the impacts of storm water discharges on waterbodies and the steps that the public can take to reduce pollutants in storm water runoff to the maximum extent practicable maximum extent practicable.

Program BMPs

1. Seek and consider public input in the development, revision, and implementation of the SWMPP.

Target Audience	Measurable Goal /Method	Proposed Schedule	Responsible Party
General Public	Post for Public comment on SWMPP via website and/or city council meeting	Website posting- Ongoing City Council - Annually	City of Graysville

2. Address targeted pollutant sources in the public education program to include, at a minimum, the land development community (i.e. construction contractors/developers).

Target Audience	Measurable Goal/Method	Proposed Schedule	Responsible Party
Land Development Community	Distribute information regarding erosion and sedimentation control for qualifying construction sites	Annually	City of Graysville
Land Development Community	Distribute training information regarding erosion and sedimentation control classes	Ongoing	City of Graysville
General Public	Post signs referencing local codes that prohibit littering/illegal dumping	As needed	City of Graysville

3. Address the reduction of litter, floatables, and debris from entering the MS4.

Target Audience	Measurable Goal/Method	Proposed Schedule	Responsible Party
General Public	Organize litter cleanup	At least one activity annually	City of Graysville
General Public	Post signs referencing local codes that prohibit littering/illegal dumping	As needed	City of Graysville

4. Inform and involve individuals and households about the steps that can be taken to reduce storm water pollution.

Target Audience	Measurable Goal/Method	Proposed Schedule	Responsible Party
General Public	Cleanups and/or storm water informative meeting	At least one activity annually	City of Graysville

5. Inform and involve individuals and groups on how to participate in the storm water program

Target Audience	Measurable Goal/Method	Proposed Schedule	Responsible Party
General Public	Distribute handouts addressing the topics: litter control, impervious surface runoff, pet waste, vehicle maintenance, landscaping and rainwater reuse	Annually	City of Graysville
General Public, Business, Including Home-based and Mobile Businesses	Distribute handouts addressing the topics: automotive chemicals, hazardous cleaning supplies, carwash soaps and other hazardous materials, and illicit discharges	Annually	City of Graysville
Homeowners, Landscapers, and Property Managers	Distribute handouts addressing the topics: yard care techniques, pesticides and fertilizers, carpet cleaning, auto repair and maintenance, Low Impact Development (LID) and Green Infrastructure (GI), and stormwater pond maintenance	Annually	City of Graysville
Engineer, Contractors, Developers, Review Staff and Land Use Planners	Distribute handouts addressing the topics: sedimentation and erosion control,	Annually	City of Graysville

6. Evaluation of the effectiveness of the public education and public involvement program.

Target Audience	Measurable Goal/Method	Proposed Schedule	Responsible Party
General Public	Count number of materials distributed or number of times the website was accessed	Annually	City of Graysville

In summary the two public involvement and two public education components are as follows:

Type of BMP	BMP
Public Education	Handouts and Website
Public Education	Signage
Public Involvement	Annual Cleanup
Public Involvement	Household Hazardous Waste Collection Day

Illicit Discharge Detection and Elimination (IDDE) Program

The City of Graysville must have a program that actively detects and eliminates illicit discharges to the maximum extent practical. Illicit discharges are defined by the EPA as discharges into the storm sewer system that are not composed entirely of rainwater. Such chemicals or other pollution flowing into nearby streams and rivers can negatively affect aquatic animals, wildlife, and humans. Illicit discharges can make streams and rivers unsafe for fishing, swimming, and other uses.

Program BMPs

1. Maintain a map of all known outfalls with latitude/longitude information as well as the names of the waters of the State that receive discharges from these outfalls. Structural BMPs owned, operated, or maintained by the Permittee should also be mapped.

Target Audience	Measurable Goal/Method	Proposed Schedule	Responsible Party
General Public	Produce a map of all known outfalls, waters of the state, and permittee owned, operated, or maintained structural BMPs (Appendix B)	Annually	City of Graysville and JCDH

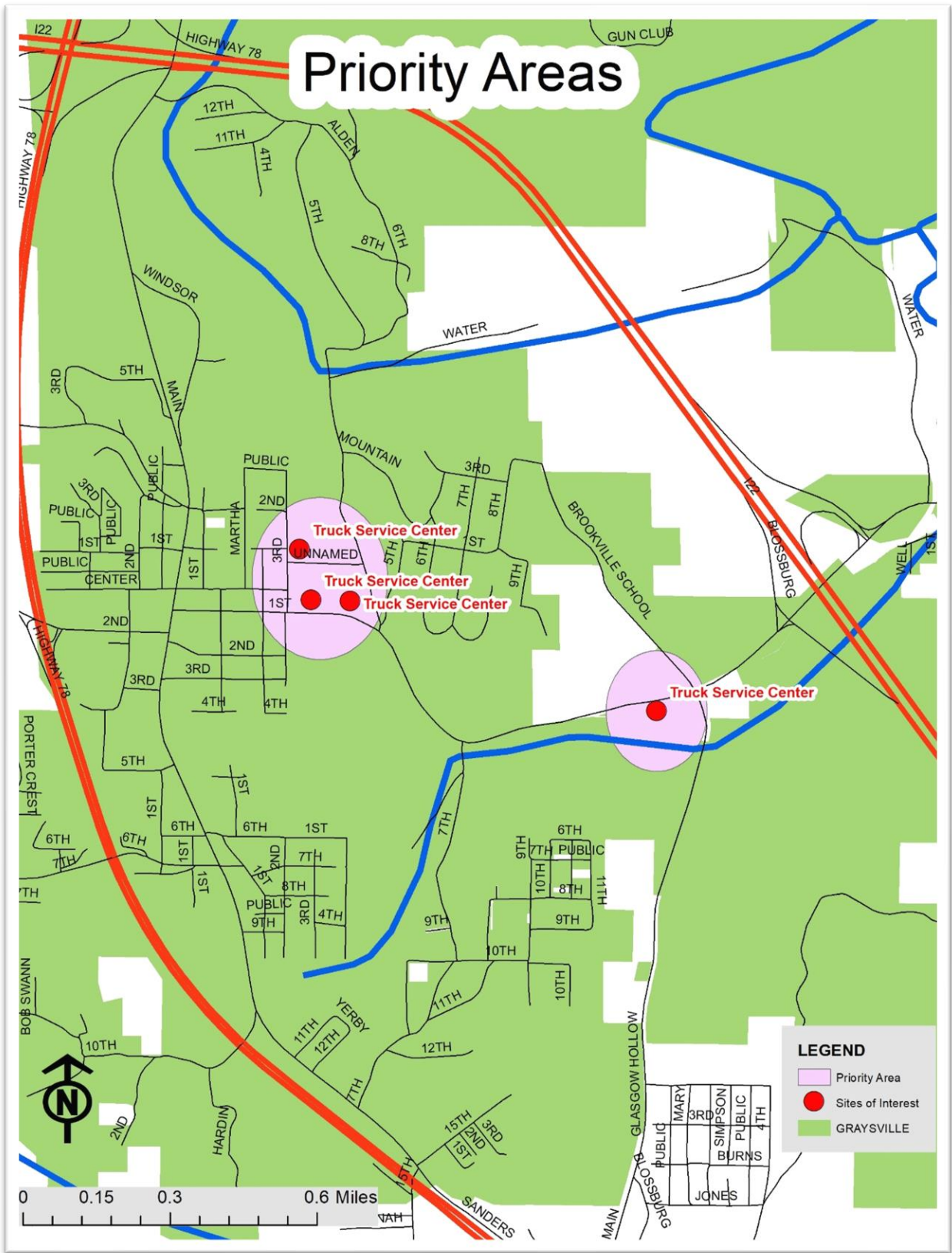
2. Enact ordinances that prohibit illicit discharges and improper disposals. The ordinances should have the following provisions
 - a. Escalating enforcement procedures and actions.
 - b. Require removal of illicit discharges and the immediate termination of improper disposal practices.
 - c. Address common non-storm water discharges if ADEM or the city of Graysville considers them significant contributors of pollutants: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration (infiltration is defined as water other than wastewater that enters a sewer system, including foundation drains, from the ground through such means as defective pipes, pipe joints, connections, or manholes. Infiltration does not include, and is distinguished from, inflow), 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 run-off, individual residential car washing, flows from riparian habitats and wetlands, discharge or flows from firefighting activities (to include fire hydrant flushing); de-chlorinated swimming pool discharges, and residual street wash water, discharge authorized by and in compliance with a separate NPDES

- d. Develop a list of other similar occasional incidental non- storm water discharges (e.g. non-commercial or charity car washes, etc.) that will not be addressed as illicit discharges. These non- storm water discharges must not be reasonably expected (based on information available to the Permittees) to be significant sources of pollutants to the municipal separate storm sewer system, because of either the nature of the discharges or conditions you have established for allowing these discharges to your MS4 (e.g., a charity car wash with appropriate controls on frequency, proximity to impaired waterbodies, BMPs on the wash water, etc.).

Target Audience	Measurable Goal/Method	Proposed Schedule	Responsible Party
General Public	Illicit Discharge Detection and Elimination (IDDE) Ordinance - 928	Completed	City of Graysville

3. Dry weather screen outfalls to identify possible illicit discharges. Dry weather is defined as a period of time during which it has been more than 72 hours since the last significant rainfall (0.10 inch). All outfalls must be screened once during the 5 year permit cycle. Priority areas are considered to be commercial or industrial areas with a higher potential for an illicit discharge (see map below).

Target Audience	Measurable Goal/Method	Proposed Schedule	Responsible Party
General Public	Dry weather screen at least 15% of all outfalls once per year	Annually	JCDH
General Public	Dry weather screen Priority areas on a more frequent schedule	Annually	JCDH



4. A mechanism for the public to report illicit discharges.

Target Audience	Measurable Goal/Method	Proposed Schedule	Responsible Party
General Public	City Hall (674-5643)	Ongoing	City of Graysville

5. Training Program for identification, reporting and corrective action of illicit discharges

Target Audience	Measurable Goal/Method	Proposed Schedule	Responsible Party
Municipal Staff	Provide a training session to appropriate personnel. These sessions will be documented through a sign-in sheet	At a minimum of once every five years	City of Graysville

6. Illicit Discharge Documents

Document	Status	Location
Screening Protocol -Steps for sampling an outfall	Completed	Appendix B (SOP Manual)
Tracing Protocol -How to find the source of an illicit discharge once a potential illicit discharge is identified	Completed	Appendix B (SOP Manual)
Elimination Protocol -Procedures for eliminating an illicit discharge once it is identified	Completed	Appendix B (SOP Manual)
Investigation Protocol -Procedures for an appropriate investigation of a reported illicit discharge.	Completed	Appendix B (SOP Manual)
ADEM Illicit Discharge Notification Protocol -Procedures to notify ADEM or a suspect illicit discharge coming from an adjacent MS4	Completed	Appendix B
Graysville's Illicit Discharge Ordinance	Completed	Appendix B

Construction Site Storm Water Runoff Control

The City of Graysville must have a program to reduce, to the MEP, pollutants in any storm water runoff to the MS4 from qualifying construction. According to EPA the pollutants that are commonly discharged from construction sites include sediment (dirt), solid and sanitary wastes, phosphorus(fertilizer), nitrogen (fertilizer), oil and grease, concrete truck washout, construction chemicals, and construction debris. These pollutants can cause physical, chemical and biological harm to streams and rivers. Qualifying inspection sites are to be inspected at a minimum of every three months. Priority construction sites, as defined in the permit, will be inspected at least once per month.

Program BMPs

1. Develop an ordinance to require erosion and sediment controls, sanctions for compliance, and provide all other authorities needed to implement the requirements. The ordinance should include the following:
 - a. Requirements for implementation of erosion and sedimentation control BMPs that are consistent with Alabama Handbook for Erosion Control, Sediment Control, and Storm Water Management on Construction Sites and Urban Areas published by Alabama Soil and Water Conservation Committee.
 - b. Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality;
 - c. Development and implementation of an enforcement strategy that includes escalating enforcement remedies to respond to issues of non-compliance
 - d. An enforcement tracking system designed to record instances of non-compliance and the MS4's responding actions.

Target Audience	Measurable Goal/Method	Proposed Schedule	Responsible Party
General Public	Erosion and Sedimentation Control Ordinance - 927	Completed	City of Graysville

2. A training program for construction site inspectors about appropriate construction BMPs

Target Audience	Measurable Goal/Method	Proposed Schedule	Responsible Party
Municipal Personnel	Qualified Credentialed Inspector (QCI) Training or equivalent. The certification will be the documentation. May be City or contracted personnel	Annually	City of Graysville

3. A mechanism for the public to report illicit discharges from qualifying construction sites.

Target Audience	Measurable Goal/Method	Proposed Schedule	Responsible Party
General Public	City Hall (674-5643)	Currently in Place	City of Graysville

Documents	Status	Location
Construction Site Inspection Form (Residential and Commercial)	Completed	Appendix C
Site Plan Review and Evaluation (Commercial)	Completed	Appendix C
Site Inspection Protocol	Completed	Appendix C
ADEM Construction Site Notification Protocol -Procedures to notify ADEM of a site that doesn't have an NPDES permit or has ineffective BMPs	Completed	Appendix C
Graysville's Erosion and Sedimentation Control Ordinance	Completed	Appendix C
Inventory of Qualifying Construction Sites	Ongoing	Annual Report

Post-Construction Storm Water Management in New Development and Redevelopment

The City of Graysville must have a program that addresses storm-water runoff after completion of a qualifying construction project. Post-construction storm water management refers to the structural and non-structural controls that manage storm water after development and re-development of the property. Such practices as low impact development and green infrastructure can help obtain permanent storm water management over the life of the property's use. The post construction controls should be considered during the initial site development planning phase. The City of Graysville will keep records of the post-construction inspections.

Program BMPs

1. The Permittee must develop and institute the use of an ordinance or other regulatory mechanism to address post-construction runoff from qualifying new development and redevelopment projects. The ordinance must have the following:
 - a. A design rainfall event with an intensity up to that of a 2yr-24hr storm event shall be the basis for the design and implementation of post- construction BMPs.
 - b. The Permittee must require adequate long-term operation and maintenance of BMPs.
 - c. The Permittee shall perform or require the performance of post construction inspections, at a minimum of once per year, to confirm that post-construction BMP's are functioning as designed.

Target Audience	Measurable Goal/Method	Proposed Schedule	Responsible Party
General Public	Post-Construction Ordinance - 929	Completed	City of Graysville

The City of Graysville will keep records of the post-construction inspections. A list of sites will be maintained by the City and included in the Annual Report each year.

Documents	Status	Location
Site Plan Review and Approval Protocol (Section 4 of Post-Construction Ordinance); (Commercial Site Plan Review and Evaluation)	Completed	Appendix D; Appendix C
Post-Construction Storm Water Design Review and Certification Protocol (Sections 4.1 and 5 of Post-Construction Ordinance)	Completed	Appendix D
Post-Construction Inspection Protocol (Sections 4.2 and 4.3 of Post-Construction Ordinance)	Completed	Appendix D

2. The Permittee must actively encourage LID and Green Infrastructure.

Target Audience	Measurable Goal/Method	Proposed Schedule	Responsible Party
Landowners and Developers of qualifying sites	Distribute handouts on LID and GI with the land disturbance permit. Applicants will sign an acknowledgement of receipt statement	As needed	City of Graysville

3. The Permittee shall perform or require the performance of post construction inspections.

Target Audience	Measurable Goal/Method	Proposed Schedule	Responsible Party
Qualifying sites	Inspect post-construction BMPs	Annually	City of Graysville or property owner

Pollution Prevention/Good Housekeeping for Municipal Operations

The City of Graysville shall develop, implement, and maintain a program that will prevent or reduce the discharge of pollutants in storm water run-off from municipal operations to the maximum extent practical.

Program BMPs

1. Develop and maintain an inventory of all municipal facilities, including municipal facilities that have the potential to discharge pollutants via storm water runoff. The list will be included in the Annual Report.

Target Audience	Measurable Goal/Method	Proposed Schedule	Responsible Party
Municipal Personnel	Review and maintain inventory of all municipal facilities	Ongoing	City of Graysville

2. Evaluation of the effectiveness of the BMP's to reduce litter, floatables, and debris from entering the MS4.

Target Audience	Measurable Goal/Method	Proposed Schedule	Responsible Party
General Public	Complete a comparison of the five year permit period for the amounts of litter, floatables and debris removed from the MS4 annually	Five years	City of Graysville

The City currently has litter pick-up, provides trash receptacles at municipal sites and has installed anti-litter signage along its roadways and parks. The program effectiveness will be determined by the increase or decrease in the amounts of litter, floatables and debris removed from the MS4 each year for a five-year period. The BMPs will be reviewed annually and adjusted as needed.

3. Develop a Standard Operating Procedures (SOP) detailing good housekeeping practices to be employed at appropriate municipal facilities and during municipal operations that may include, but not limited to, the following:
 - a. Equipment washing
 - b. Street sweeping
 - c. Maintenance of municipal roads including public streets, roads, and highways, including but not limited to unpaved roads, owned, operated, or under the responsibility of the Permittee
 - d. Storage and disposal of chemicals, Pesticide, Herbicide and Fertilizers (PHFs) and waste materials
 - e. Vegetation control, cutting, removal, and disposal of the cuttings.
 - f. Vehicle fleets/equipment maintenance and repair
 - g. External Building maintenance
 - h. Materials storage facilities and storage yards.

Target Audience	Measurable Goal/Method	Proposed Schedule	Responsible Party
Municipal Personnel	2011 SOP Manual	Currently in place; Update as needed	City of Graysville

4. A program for inspecting municipal facilities for good housekeeping practices, including BMPs. The program shall include checklists and procedures for correcting noted deficiencies

Target Audience	Measurable Goal/Method	Proposed Schedule	Responsible Party
Municipal Personnel	2011 SOP Manual And SWMA's Storm water Online Activity Record(SOAR) for record keeping	Annually	City of Graysville

5. A training program for municipal facility staff in good housekeeping practices and training schedule

Target Audience	Measurable Goal/Method	Proposed Schedule	Responsible Party
Municipal Personnel	Training session consisting of video and presentation about SOPs. The training will be documented using sign-in sheets	Annually	City of Graysville