City of Northport

Storm Water Management Program Plan

Effective January 1, 2017
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1.0 INTRODUCTION

1.1 Purpose
As part of the City of Northport’s ADEM Municipal Separate Storm Sewer System (MS4) Phase II General Permit (NPDES # ALR040017), the City must “develop, implement, and enforce a Storm Water Management Program Plan (SWMPP) designed to reduce the discharge of pollutants from its MS4 to the maximum extent practicable (MEP) to protect water quality and to satisfy the appropriate water quality requirements of the Clean Water Act.”

The purpose of this Manual is to outline the City’s requirements, regulations, and overall plan for the attainment of the program’s stated goals. This document is meant to serve as a guide to staff in their efforts to reduce the discharge of pollutants to Northport’s MS-4. The SWMPP is intended to be a “living document” that is modified as necessary to incorporate new and innovative ideas into Northport’s storm water management.

1.2 Geographic Description
The City of Northport is located in West Central Alabama in Tuscaloosa County adjacent to the Black Warrior River. The 2010 census accredited Northport with a population of 23,330.

The corporate limits of Northport lie within five (5) primary watersheds: the Twomile Creek Basin, the Mill Creek Basin, the Tater Hill Creek Basin, and the Lake Lurleen Basin, all draining to the Black Warrior River. The fifth watershed, the Carroll’s Creek Basin, drains to Lake Tuscaloosa (see Appendix Item No. 1 for a map of the City’s watersheds).

Although each basin has varying development densities, all basins generally exhibit developments that are residential in character with some retail development and little, if any, industrial development.

Drainage is provided through a series of natural drainage ways, ditches and, particularly in the denser residential/retail developments, dedicated storm sewer systems consisting of underground pipes and inlets collecting surface drainage internal to the development; many having storm water detention ponds maintained by Home Owners Associations (HOA’s)

1.2.1 Implementation and Management Responsibilities
Within the City of Northport, responsibility for the overall implementation and management of the program resides with several Departments:

Engineering Department: Manages the overall Storm Water Management Program and compliance with the Phase II Storm Water Permit; responsible for public outreach and education; participates in the staff reviews of development plans for compliance; responds to citizen complaints; responsible for site stormwater compliance inspections (excluding single family construction).
Planning and Inspections Department: Participates in the reviews of development plans for compliance; inspects single family home sites for on-going stormwater compliance; coordinates with Engineering on issues and concerns. Also, the Code Enforcement Officer for code compliance is part of the Planning and Inspections Department.

Public Works Department: Performs maintenance and inspections to the City’s stormwater infrastructure and assist with inspections and addressing citizen complaints.

Utilities Department: Manages the City’s Fats, Oils & Grease Control Program (FOG); responds to sanitary sewer overflows (SSO’s); and provides an on-going cleaning/maintenance program of city sewers in an effort to reduce SSO’s.

The primary point of contact for the City of Northport for the coordination and implementation of the Storm Water Management Program Plan is:

John Powell Webb, P.E., CFM  
Interim City Engineer  
City of Northport  
3500 McFarland Boulevard  
Northport, AL 35476  
(205) 339-7000  
jpwebb@cityofnorthport.org

2.0 PLAN IMPLEMENTATION

2.1 Low Impact Development (LID)
The City’s SWMPP encourages the use of Low Impact Development (LID) and other “Green Infrastructure” design techniques, where feasible, in the attainment of the Program’s goals. To promote these green design techniques, the City’s revised Zoning Ordinance (adopted in May 2012) established the following minimum design criteria:

Resource Protection Standards (Section 410, Northport Zoning Ordinance):
- An undisturbed fifty foot (50’) buffer must be provided on either side of all perennial streams in new developments.
- Areas of development that exhibit “steep slopes” (designated as those having slopes of 30%) are limited to developing a maximum of 15% of such areas.

Landscape Buffers (Article V, Northport Zoning Ordinance) are required for ALL developments to promote:
- Conservation of area waterways and aquifers.
- Provide for natural aquifer recharge.
- Prevent excessive run-off.
• Construction of Bioswales to treat sheet flow from adjacent surfaces and to slow runoff velocities and filtering out sediment and other pollutants by providing some infiltration into underlying soils.
• Encourages the protection and use of existing trees.
• Promotes Low Impact Development (LID) to reduce runoff of water and pollutants from the site at which they are generated.
• Facilitates compliance with Local, State and Federal legislation relative to water quality.

Maximum Impervious Surface Ratios (Table 6-2, Northport Zoning Ordinance) have been established for all zones in an effort to reduce impervious areas, thus reduce excessive runoff and allow for ground water recharge.

2.2 Minimum Control Measures
To attain its goals, the Northport Stormwater Management Plan encompasses the following five (5) minimum control measures:

• Public Education and Public Involvement on Stormwater Impacts
• Illicit Discharge Detection and Elimination
• Construction Site Stormwater Runoff Control
• Post Construction Stormwater Management
• Pollution Prevention/Good Housekeeping for Municipal Operations

Although the intent of the program is to reach all demographics in the City, the following audiences are specifically targeted because of their high potential to directly affect the City's stormwater quality:

• General Public (homeowners and citizens)
• Developers, Homebuilders, and Contractors
• Engineers
• Local Businesses
• Food Service Facilities
• City Employees
• Elected Officials

The strategy for reaching the various target audiences will vary depending on the audience itself, as well as, the information and impact that are being focused upon.
3.0 PUBLIC EDUCATION AND PUBLIC INVOLVEMENT ON STORMWATER IMPACTS

3.1 The Tuscaloosa Area Stormwater Management Guide
The City of Northport, in conjunction with Tuscaloosa County, the City of Tuscaloosa and
the University of Alabama developed an Education and Outreach Program. One of the by-
products of this joint effort has been The Tuscaloosa Area Stormwater Management Guide,
which is a brochure that is made available to the public (see Appendix No. 2). Currently, the
City of Northport makes this document available in hard copy format at City Hall, the Water
Works Office, and the Public Works Compound. These brochures are also distributed to
new residents when they sign up for City services and attached to all commercial and
residential building permits.

The brochures target reduction of the following pollutants:
1. Sediment: dirt and sand
2. Debris: grass clippings, cigarette butts, trash, plastic
3. Heavy Metals: lead, mercury
4. Household Waste: antifreeze, gas, oil, pesticides, fertilizers, paint

3.2 Discovering Alabama Series – The North River Watershed
The area-wide partnership of Northport, the University of Alabama, Tuscaloosa and
Tuscaloosa County also led to the development of the program entitled the “North River
Watershed” which aired on APT’s Discovering Alabama series throughout the second half
of 2015. The Discovering Alabama series has a State-wide audience and this particular
piece had a significant impact on public education and outreach. A program information
sheet and related memorandum to the Northport Mayor and City Council are attached as
Appendix Item No. 3. This program continues to air on APT.

3.3 Quarterly Water Bill Notices
To help maintain citizen awareness of storm water pollution prevention, Northport places
quarterly notices on customer water bills. The notice may vary from quarter to quarter and
change in an effort to highlight relevant information or dates specific to the quarter in which
the notice is sent. Examples of notices include:

Please remember “Only rain down the drain”. Help Northport keep local streams and lakes
pollution free! To report an illicit storm sewer discharge, call the Office of the City Engineer @
205-339-7000 or visit our web site at www.cityofnorthport.org and go to “I want to …… report a
problem”.

Or,
To report an illicit storm sewer discharge, call the Office of the City Engineer @ 205-339-7000 or visit our
web site at www.cityofnorthport.org and go to “I want to report …. a problem”.

A copy of a typical bill is included as Appendix Item No. 4.
3.4 City Website
The City’s website allows the public to:

- Report an illicit discharge or to express other storm water concerns.
- View and download *The Northport Stormwater Management Plan*.
- View and download *The Tuscaloosa Area Stormwater Management Guide*.
- View the City’s PSA (Public Service Announcement) developed in partnership with the North River Watershed Association.
- View and download the *North River Watershed Management Plan*.
- Obtain information about the annual *Lake Tuscaloosa Watershed Festival and Clean Our Lake Day*.
- View and download Northport’s Storm Water Ordinance.
- View and download Northport’s Zoning Ordinance.
- View and download *The Tuscaloosa Stormwater Management Plan*.
- Link to the Alabama Department of Environmental Management (ADEM) web site.
- Link to the Environmental Protection Agency (EPA) web site.
- View and download the *Alabama Handbook for Erosion Control, Sediment and Stormwater Management*.

3.5 Public Hearings
Public hearings remain the most effective method to involve the public in a municipal project. As an example, Northport held a series of public meetings to discuss planned updates to the city’s Zoning Ordinance with citizens, developers and engineers. *The revised ordinance provides for and encourages Low Impact Developments (LID), landscaping and alternate, enviro-friendly designs to address storm water.*

3.6 Collaboration/Partnerships
By joining with other local and state organizations, Northport has significantly enhanced its ability to promote storm water management. As an example, through our collaboration with the Black Warrior Clean Water Partnership, Northport has helped sponsor workshops including: the *The Alabama Dirt & Gravel Road Workshop, Low Impact Development - The Nexus of On-The-Ground Implementation and Stormwater Compliance, Clear Water Alabama 2015 Urban Development – Protecting Our Water.*
3.7 Lake Tuscaloosa Watershed Festival
Northport is a sponsor of the annual *Lake Tuscaloosa Watershed Festival*. The Festival is an event designed to educate the public, particularly school children, regarding storm water pollution prevention and to provide public participation in cleaning of trash from Lake Tuscaloosa.

3.8 Tuscaloosa Area Storm Water Working Group
Northport was an active stakeholder in the Black Warrior Clean Water Partnership- North River Project Committee (Lower Sub-Basin) and has a representative serving on the steering committee for the North River Watershed Management Plan. Enclosed, as Appendix Item No. 5, is a copy of the North River Watershed Pamphlet. Appendix No. 6 is a summary of the Education and Outreach programs the Partnership has sponsored from 2011 to 2015 and the number of individuals impacted by these programs. Unfortunately, the grant which funded the partnership has expired during 2016. The group was so valuable to the MS4 Permit holders in Tuscaloosa County we and the other permit holders have created the Tuscaloosa Area Storm Water Working Group. This group currently consists of the City of Northport, the City of Tuscaloosa, Tuscaloosa County and the University of Alabama. The group is seeking inclusion of some of our prior partners such as Alabama Power, The Forestry Commission, ALDOT, GSA, etc. Meetings for the group will be held bi-monthly.

4.0 **ILlicit DIScharge DETection AND ELIMINATION (IDDE)**

4.1 Stormwater Compliance Ordinance
In 2005, the City implemented an IDDE Program as part of the initial permit cycle and continues to manage and enforce the program. A copy of the City’s Stormwater Compliance Ordinance is included as Appendix Item No. 7.

4.2 Geographic Information System (GIS)
In FY 2011, the City began the development of a city-wide Geographic Information System (GIS). The system provides a way for Engineering Department personnel to identify and monitor discharge points; track complaints; manage inspections and maintenance of storm water infrastructure; and plan for long term improvements. Northport employs a full time GIS Coordinator who is responsible for managing and continually updating the system. The GIS Stormwater Mapping Implementation Plan consists of the following steps or phases:

I. Using “as-built” or “record drawings”, map existing storm sewers.
II. Purchase GPS (Global Positioning System) for field location of storm sewer facilities.
III. Using GPS locate and map the mouths of major outfalls.
IV. Using GPS locate and map unrecorded storm sewers.
V. Identifying structural BMPs owned, operated, or maintained by the permittee.

-6-
4.3 Grease Control Ordinance
As part of the IDDE, the city adopted a Grease Control Ordinance in 2009 to help ensure the proper disposal of fats, oils, and grease (FOG). The Grease Control Program is focused on reducing these FOG wastes contributed to the system by Food Service facilities (FSF) and includes the inspection of the grease traps at these facilities. These inspections were previously performed by the Tuscaloosa County Health Department, but as of January 1, 2012, they became the responsibility of the City of Northport Utility Department. This program helps ensure that FSF grease traps are being properly maintained, thereby minimizing the potential for FOG to accumulate in the City’s sanitary sewer system. This, in turn, diminishes the potential for sanitary sewer overflows (SSOs) and potential illicit discharges as a result of these SSOs.

4.4 Discharge Detection
The Public Works and Utility Departments are responsible for repair and maintenance of Northport’s water, sanitary sewer and storm sewer systems. During daily activities, scheduled inspections and routine maintenance; supervisors from those departments notify Engineering of suspected illicit discharges. Illicit discharge detection is further supplemented by citizen reports to the Engineering Department through the City’s web site. Dry-weather testing of outfalls will be screened, at a minimum, by the following rate: 15% per year with all (100%) screened at least once per five years, with additional screening of suspected illicit discharges as necessary. Illicit discharges will be investigated and traced to the source and code enforcement will be utilized to eliminate the source of the illicit discharge. Results of screening, investigations and actions taken will be included in the Annual Report.

5.0 CONSTRUCTION SITE STORM WATER RUNOFF CONTROL

Permitting land disturbing activities in Northport follow one of three procedures:

1. **One to Four Family Residential Construction**: Minimum erosion control measures are specified in the Code for this activity based upon the severity of the slope of the site. The permittee is responsible for erosion control and inspection is provided periodically by the Planning & Inspection Department. The permittee must sign an “Agreement in Lieu of an Erosion Control Bond”. Certificate of Occupancy is not issued until permittee stabilizes the site.

2. **Developments Less Than One (1) Acre (subdivisions, commercial & retail developments)**: Permittee must submit an erosion control plan in conformance with the ADEM Handbook for review and approval by the City Engineer. Daily inspections and reports by the permittee’s engineer and periodic inspections by the City Engineer’s office are required. An Erosion Control Bond equal to 150% of the cost to provide erosion control remains posted with the City until the site is stabilized.
3. Developments One (1) Acre or Greater (subdivisions, commercial & retail developments): Permittee must submit a Notice of Intent (NOI) to ADEM with a copy to the Engineering Department, obtain an ADEM permit for the site work, and develop and maintain a Construction Best Management Practices Plan (CBMPP). The permittee must provide an Erosion Control Plan for review which mirrors the graphic plan in the CBMPP. Daily inspection is required of the permittee’s engineer or QCP with copies of the daily reports to the Engineering Department. Engineering provides periodic inspections of the site. An Erosion Control Bond equal to 150% of the cost to provide erosion control remains posted with the City until the site is stabilized.

The City’s Engineering Tech position, to be hired in January 2017, is required by job description to obtain QCI certification within one (1) year of employment. In addition, the City responds to and investigates complaints from citizens related to construction site runoff and notifies ADEM when it is appropriate. Documentation of inspections, referral of noncompliant construction sites, and/or enforcement actions taken at construction sites will be documented and logged for inclusion in the Annual Report.

6.0 POST-CONSTRUCTION STORMWATER MANAGEMENT

All development plans (except 1-4 Family Construction) must include an erosion control plan and sites one (1) acre or more must provide the City with copies of the appropriate ADEM permit. Additionally, the permittee must provide the City with a copy (if applicable) of the Termination of General NPDES Permit and a letter from the permittee’s engineer that permanent stabilization has been achieved. The City performs a post construction inspection, prior to release of Erosion Control Bond to ensure that all areas have been stabilized and that the site is free of siltation or other issues that the owner must resolve prior to acceptance of the project. If the development is unresponsive in addressing the issues, the City will utilize the Erosion Control Bond to correct the issues and stabilize the site. Single Family Houses (1-4 Family Construction) is not issued a Certificate of Occupancy (CO) until all issues relating to erosion has been addressed and the site is permanently stabilized. Detention Basins installed during subdivision construction have a “Storm Water Detention Facility Maintenance Agreement”, which requires annual inspection and maintenance by the HOA in accordance with a maintenance manual developed by the professional engineering consultant for the development.

The City currently requires post construction runoff to be equal to or less that pre-construction runoff and detention pond to be designed, at a minimum for 24 hour rain intensity of a 100, 25, 10, and 1 year storm events to be submitted during site plan review.

The Annual Report will include all applicable ordinances, post construction structural controls installed and inspected, inventory of post construction structural controls and a summary of enforcement actions within the reporting cycle.
7.0 **POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS**

In an effort to reduce stormwater pollution and promote good housekeeping measures in municipal operations, the City created two (2) manuals for City Employees. These manuals are:

1. *Pollution Prevention Plan for the City of Northport Municipal Operations*

2. *Pollution Prevention Plan Employee Training Manual for the City of Northport Municipal Operations*

Both of these documents are provided to the appropriate City personnel and are included as Appendix Item No. 8 and Appendix Item No. 9 respectively. Attendance sheets for the 2016 training sessions for the employees of the Public Works and Utility Departments are provided as Appendix Item No. 10. Public Works and Utilities Directors are primarily responsible for the City’s Pollution Prevention / Good Houskeeping, schedules and operating procedures, including inventory updates.

The Public Works Department also develops an annual cleaning schedule for cleaning of streets and rights-of-way. The work includes both litter and debris collection and sweeping of gutters.

Finally, the Utilities Department prepared a Spill Prevention Control and Containment Plan (SPCC) for the Wastewater Plant. The Plan is attached as Appendix Item No. 11.

8.0 **SUMMARY**

In summary, the City strives to implement a SWMPP to protect valuable environmental resources in a way that is effective, innovative, sustainable, and fiscally responsible. This document is intended to serve as a “living document” that is modified, as necessary, to incorporate new and innovative ideas in storm water pollution prevention. Any comments or questions concerning this SWMPP should be directed to:

John Powell Webb, P.E., CFM  
Interim City Engineer  
City of Northport  
3500 McFarland Boulevard  
Northport, AL 35476  
(205) 339-7000  
jpwebb@cityofnorthport.org
APPENDIX ITEM NO. 1

NORTHPORT WATERSHEDS
City of Northport, Alabama
Storm Water Management Plan

APPENDIX ITEM NO. 2

THE TUSCALOOSA AREA STORM WATER MANAGEMENT GUIDE
COMMON STORMWATER POLLUTANTS

<table>
<thead>
<tr>
<th>POLLUTANT</th>
<th>IMPACT</th>
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<tbody>
<tr>
<td>SEDIMENT</td>
<td>Flooding due to blocked ditches and storm drains</td>
</tr>
<tr>
<td>Dirt and Sand</td>
<td>Choked streams that cannot support fish or animals</td>
</tr>
<tr>
<td>DEBRIS</td>
<td>Polluted lakes and rivers</td>
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<td>Cigarette Butts,</td>
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<tr>
<td>Trash, Plastic</td>
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<tr>
<td>HEAVY METALS</td>
<td>Fish that are unsafe to eat</td>
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<td>Lead, Mercury</td>
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<tr>
<td>HOUSEHOLD WASTE</td>
<td>Increased water treatment costs</td>
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<tr>
<td>Antifreeze, Gas,</td>
<td></td>
</tr>
<tr>
<td>Oil, Pesticides,</td>
<td></td>
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<tr>
<td>Fertilizers, Point</td>
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</table>

For More Information
Or
To Report A Problem Call:

CITY of TUSCALOOSA
Chad Christian - 248-5311

TUSCALOOSA AREA
STORMWATER
MANAGEMENT GUIDE

www.ttowstormwater.com

CITY of TUSCALOOSA COUNTY
Bob Cunningham - 345-6600

CITY of NORTHPORT
Charles Swann - 339-7000

Water Quality Equals Quality of Life
Always remember....

"ONLY RAIN DOWN THE DRAIN"

WHAT IS STORMWATER POLLUTION?
Think of a single rain drop falling from the sky. It lands on your roof, flows down into the gutter, across your lawn and down your driveway. Along the way it picks up pesticides, fertilizer, oil and grease, pet waste, and many other chemicals and trash.

Next, it reaches the road where it can pick up sediment, cigarette butts, and more. Then, it flows into a drain, stream, river, or network of pipes that flow into your favorite fishing hole.

Now, imagine an entire storm, millions of raindrops, catching all these pollutants and flowing into our water bodies. This is "Stormwater Pollution" and it occurs every time it rains!

WHY IS STORMWATER POLLUTION A PROBLEM?
Stormwater pollution can result in dirty lakes and streams, fewer and less healthy fish and wildlife, limits on recreational use of Lake Tuscaloosa, and increased water and sewer treatment costs.

HOW CAN I PREVENT STORMWATER POLLUTION?
- Report Spills or Erosion Problems Immediately
- Establish Grass on Bare Areas to Prevent Erosion
- Wash Your Car On The Lawn Instead Of The Driveway
- Dispose of Clippings, Leaves and Garbage Properly - Compost or Place Behind the Curb
- Recycle Used Oil and Antifreeze
- Sweep Your Driveway Instead of Pressure Washing
- Maintain Septic Tanks Properly
- Use Silt Fencing and Other Erosion Control Measures in Construction
- Don't Over Fertilize Your Lawn and Don't Apply Before Heavy Rainfall
APPENDIX ITEM NO. 3

THE NORTH RIVER WATERSHED

The Discovering Alabama Series
Alabama Public Television
CITY OF NORTHPORT
Inter-Office Memorandum

Our Mission: To Provide Efficient and Effective Services, To Promote a Sense of Community, To Enhance the Quality of Life

TO: Mayor and City Council
FROM: Charles T. Swann, P.E., City Engineer
SUBJECT: Discovering Alabama and Storm Water Management
DATE: October 20, 2015

Since 2005, the Alabama Department of Environmental Management (ADEM) acting under the auspices of the EPA and the Clean Water Act, has required municipalities to develop a Storm Water Management Plan (SWMP). The stated purpose of the SWMP is the reduction of pollutants from storm water runoff to area streams.

Northport’s Stormwater Management Plan includes six (6) control measures including: Public Education and Outreach; Public Involvement/Participation; Illicit Discharge Detection and Elimination; Construction Site Stormwater Runoff Control; Post Construction Stormwater Management; and Pollution Prevention/Good Housekeeping for Municipal Operations.

John Powell Webb, PE, CFM, is the Engineering Department’s lead engineer in the City’s Stormwater Management Program and the implementation of the above minimum control measures. John has put forth a significant effort toward implementing Northport’s Plan by: participating in the Black Warrior Clean Water Partnership; serving on the steering committee for the North River Watershed Management Plan; and representing the City at the annual Lake Tuscaloosa Water Festival and Annual Clean Our Lake Day.

As a part of Northport’s effort in Stormwater Management, the City has developed partnerships with Tuscaloosa, Tuscaloosa County, the University of Alabama and other area-wide agencies. These partnerships have afforded Northport with opportunities to maximize its efforts in meeting the control measures itemized in our Storm Water Management Plan.

I am particularly proud of the City’s involvement in the Discovering Alabama series The North River Watershed airing on Alabama Public Television. This program goes straight to the “Public Education and Outreach” part of Northport’s Storm Water Management Plan and our participation would not have been possible without the support of the Mayor, City Council and City Administrator.

Attached is a promo sheet listing the various dates and times this program will air. Also attached is an e-mail from the program’s host, Dr. Doug Phillips, expressing his appreciation. I respectfully request that you take just a few minutes to watch this presentation. As elected officials, the Mayor and Council are an important part of this team and you should be proud of Northport’s participation in keeping area waterways clean.

cc. City Administrator
Dear All,

I want to again express my appreciation for the funding support and other assistance provided to enable production of Discovery Alabama “North River Watershed”. The program is completed and will be initially broadcast this month on APT at 6:00 PM Sunday October 18, 9:00 PM Thursday October 22, noon Sunday October 25, and again, early morning, 12:30 AM Monday October 26. Please spread the word.

As you know, Discovering Alabama is designed for general audiences and, of course, K-12 schools. So, the program will open with a few minutes visually portraying/introducing the idea/concept of “watershed”, followed by a few minutes overviewing the North River watershed and Lake Tuscaloosa, and then will highlight the collaborative work of the North River Watershed Project. We did our best to represent the range of project partners, so the show includes many organizations and interviewees, therefore requiring that the 30 minutes of show time be parsed sparingly. And, a reminder, those who contributed funding to support this particular program are listed in the roll credits at the end of the show, as per public television guidelines.

I hope you enjoy the program and find it to your liking. If you want a DVD of the program just let me know.

Thanks again,
Doug
Discovering Alabama

SERIES INFO | DAILY SCHEDULE | PROGRAMS A-Z

North River

Water. We can’t live without it, but how do we live with it? Dr. Doug Phillips explores confluences, conflicts and cooperation in Alabama’s North River Watershed. Reaching across political boundaries and personal agendas, citizens, governments, environmentalists and business leaders have united to create a plan for water management that may well be a model for the rest of the state and the nation.

Air Times

Thursday, October 22 at 9:00 pm on Main
Sunday, October 25 at 12:00 pm on Main
Monday, October 26 at 12:30 am on Main
Monday, November 23 at 12:30 am on Main
APPENDIX ITEM NO. 4

SAMPLE QUARTERLY STORMWATER MESSAGE
NORTHPORT WATER BILL
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<th>SERVICE FROM</th>
<th>SERVICE TO</th>
<th>BILLING DATE</th>
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<tr>
<td>TAX</td>
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Payments are due in our office by 4:30 on due date. Accounts with a past due amount are subject to be disconnected at any time without further notice.

Please place your garbage and trash on the curb before 7:00 a.m. on your scheduled pickup days.

A night depository is offered for your use after hours. It is located on the West End of City Hall.

View your account, or make your payment online at www.cityofnorthport.org with a Visa or MasterCard.

Sign up for Automatic Bank Draft.

**COMPARE YOUR USAGE**

<table>
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<th>PERIOD</th>
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<tr>
<td>LAST MNTH</td>
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<tr>
<td>YEAR AGO</td>
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</tr>
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</table>

Please detach and return bottom portion with payment. Please bring entire bill when paying in person.
APPENDIX ITEM NO. 5

THE NORTH RIVER WATERSHED PAMPHLET
NORTH RIVER WATERSHED PROJECT

Mural of the North River Watershed created by Holy Spirit Elementary 4th grade class in 2013.

GOAL

Improvement of water quality for the benefit of drinking water, habitat, recreation and commercial uses and avoid over-regulation through pro-active activities.

METHODS

♦ Utilize existing programs and initiatives for collaborative projects.

♦ Gather credible scientific data to better understand the watershed.

♦ Utilize credible scientific data to implement cost-effective projects.

A collaborative effort to improve water quality and aquatic habitat through education and cost-effective projects directed by reliable science.

Spring 2015
WHAT IS A WATERSHED?
Simply put, water runs downhill. It collects in drainage ditches, then flows into small tributaries that flow into larger creeks and rivers. The drainage area of a watershed includes all of the land surface over which this network of water flows to a creek or river.

Because watersheds encompass numerous land holdings, public and private, a cooperative approach is needed to make any noticeable water quality improvement.

ABOUT THE NORTH RIVER WATERSHED
- The watershed drains significant portions of Fayette and Tuscaloosa counties.
- The watershed covers an area of 428 square miles—273,920 acres.
- The main stem is approximately 40 miles long.
- Bays Lake and Lake Tuscaloosa supply drinking water to a large number of residents in Fayette and Tuscaloosa counties.
- Lake Tuscaloosa is the third largest water supply reservoir in Alabama.
- The watershed is a recreational amenity for area residents.
- The watershed contains commercial forest and coal resources.
- The watershed is habitat for rare mussel and snail species.
WHY IMPROVE WATER QUALITY?

Reduces the cost to treat drinking water.
Reduces the need for restrictive regulations and enhances opportunities for economic development and business.
Conserves fish and wildlife.
Preserves water resources and Alabama’s quality of life.

WHAT AFFECTS WATER QUALITY?

When water runs downhill, it gathers trash, excess fertilizer and pesticides, as well as fecal matter from wild and domestic animals. Excessive sediment has been identified as the number one pollutant in Alabama.

Streams and rivers can process some of these pollutants. However, when there are more pollutants than a stream can process, the stream becomes degraded with nutrients, pathogens, chemicals, trash, and sediment.

Sedimentation in drinking water sources such as Bays Lake and Lake Tuscaloosa reduces water storage capacity and increases treatment costs. It also buries the habitat of snails, mussels, and fish and makes it hard for them to find food and to reproduce.

Excessive sediment can come from:

♦ Poorly managed unpaved roads.
♦ Urban development, forestry or agricultural practices lacking proper erosion control.
♦ Any land disturbance that does not capture sediment before it leaves the site.

Sediment from dirt roads that flows directly into streams affects water quality.

Sediment and bacteria from poorly managed animal operations.

Sediment, bacteria, oil, grease, and chemicals from residential and urban runoff.
HOW TO IMPROVE WATER QUALITY

CREDIBLE SCIENTIFIC DATA

Information about water quality, habitat, and aquatic species diversity provides a clearer picture of watershed health. Information about the North River Watershed is gathered by credible sources from entities such as the Geological Survey of Alabama, U.S. Fish & Wildlife Service, Alabama Department of Environmental Management and the U.S. Geological Survey. This information helps focus cooperative efforts and funding to target cost-effective projects that improve water quality.

STUDIES COMPLETED SINCE 2011:


♦ 2012—Strategic Habitat and River Reach Units for Aquatic Species of Conservation Concern in Alabama: Alabama Geological Survey Special Map 248.


TRAINING THE NEXT GENERATION

The North River Watershed Project utilizes expertise from area universities and schools. This provides the Project with valuable information about the watershed while providing hands-on experience working with subject-matter experts in the field.

♦ 2012—University of Alabama Geography Masters Thesis (Tyler) Lake Tuscaloosa and the North River: An Analysis of, and Plans to Improve, Water Quality

♦ 2012—Alabama School of Fine Arts—Senior Project (Palmer): Water temperature variability in Bays Lake.

♦ 2013—University of Alabama students (Carter, Howard, Pierce) updated the Source Water Protection Plan for Bays Lake, the City of Berry’s water source. The updates plan placed third in the student poster competition at the Alabama Water Resource Conference September 2013

♦ May 2013 and May 2014—University of Alabama Watershed Management Class GY-370 offered students an opportunity to develop a Watershed Management Plan using the North River as a working model. An interdisciplinary approach was used with professionals working in partnership on this plan assisting with field excursions and classroom presentations and discussions. Plans were drafted for two sub-watersheds within the North River.
Partners chose to focus water quality restoration efforts in the Clear Creek and Deadwater Creek subwatersheds in North River. It was determined that addressing sediment from unpaved roads would also address several partner priorities (water treatment, habitat improvement, responsible forestry).

Although paving these roads would significantly reduce sediment contribution to these creeks - it is not cost effective. Instead, small sediment catchment basins were installed along unpaved roads to capture sediment before it entered Clear Creek.

These basins have proven effective at capturing sediment and thus the need for in-plant treatment of turbidity. Independent monitoring of the source water by the Berry Water Treatment Plant demonstrated a measurable decline in turbidity since sediment catchment basins were installed.

Between 2011 and 2013 sediment catchment basins improved water quality and reduced treatment costs by 46%.

Since 2011
- 45 Sediment-capturing structures installed.
- 2 Reforestation projects completed.
- Over 1,000 tons of sediment prevented from entering streams.
- 14,000 gallons of drinking water capacity preserved.
HOW TO IMPROVE WATER QUALITY

EDUCATION

Education is the key to water quality and habitat management in the North River system. Educational opportunities extend to all ages and occupations. Since 2011, Partners in the North River Project have hosted or supported the following events:

- Watershed festivals reaching over 750 students
- Lake Tuscaloosa clean up since 2008 with over 75,000 lbs. of trash removed by 800+ volunteers
- Classroom Demonstrations
  - Nonpoint source pollution demonstrations
  - Rain barrel workshops
- Field Trips
  - High school and college classes
  - Other federal and state agencies
- Professional Development Training
  - Forestry Workshop
  - Unpaved Road Workshop
  - Watershed Education Training for Teachers
  - Low Impact Development
WHY PROTECT WATER RESOURCES?

With increasing population growth and associated water needs in Alabama, and the region’s susceptibility to extreme drought events, there exists a real possibility in the future of depleting surface and groundwater supplies if they are not managed in a holistic and reasonable way. Depletion of water resources has major implications beyond fulfilling the needs for humans.

Protection of water resources for the long term is much like saving for retirement; it takes a sustained effort of saving, investing, and managing to acquire sufficient financial resources to retire adequately. Securing water resources, both quality and quantity, is no different. Investments of time, action, and resources to maintain and improve current water resources assures water for the future. Good stewardship, through reducing pollution, using water efficiently for agricultural, commercial, and domestic purposes, and assuring that aquatic habitat is sufficient to sustain fish and wildlife passes on a reliable water resource to future generations.

Management of water resources is best accomplished holistically across an entire watershed or drainage basin due to the complex relationship of natural and human processes and activities that impact each other, in some cases from a great distance. This includes both land and water resources, since land use can have significant impacts on water resources and related ecosystems.

In the final analysis, it is up to us as individuals to do our part to assure that water resources are managed properly through our individual and collective actions locally, in industrial processes, on the farm, in our timberlands, and in our communities.

Oftentimes people pollute water and don’t know they are doing it. Here are some things you can do to help:

- Wash the family car on the lawn, not on the road or driveway.
- Perform regular maintenance on your car.
- Never dump anything down the storm drain! It is meant only for rainwater.
- Only use the amount of fertilizer and pesticides recommended by the manufacturer.
- Don’t litter.
- Maintain your septic system.
- Don’t pour grease down the drain.
- Use drought-tolerant, native plants for landscaping.
- Use water wisely, and encourage others to do the same. This will conserve water, as well as reduce the size of your water bill.

Common pollutants in rainwater runoff:
Oil, grease, radiator fluid, antifreeze, paint, cleaners, gasoline, trash, cigarette butts, animal waste, insecticides, herbicides, pesticides, fertilizer
RECOGNITION

The North River Project is recognized by other agencies as a demonstration of on-the-ground water quality improvement through cooperative partnerships.

- Federal Highway Administration
- U.S. Fish & Wildlife Service
- U.S. EPA Region 4
- Alabama Department of Environmental Management
- Alabama Forestry Commission

The North River Project is being used as a model to improve conditions in these watersheds:

- Bear Creek (Colbert and Franklin)
- Big Canoe Creek (St. Clair)

A MODEL FOR OTHERS

The North River cooperative partnership approach has significant advantages over any one agency or entity working alone on complex water resource issues:

- The approach is non-regulatory by design. Regulatory agencies, such as ADEM, are sometimes partners in the process, but solutions to water resource issues are developed and implemented through a cooperative partnership with willing participants.
- Because the majority of land in Alabama is privately owned, respect for landowner rights are first and foremost in the process.
- The educational approach has been proven useful statewide and is approved for compliance with Stormwater Phase II education and outreach requirements.
- The process relies on scientific data to discover problems, implement plans and projects to solve those problems, and monitor success.

The ultimate goal of the cooperative partnership approach is to reduce regulatory burdens by reducing pollutant loadings, work to provide adequate water resources for future needs, and to restore and recover aquatic habitats. This approach can lead to significant progress in managing, protecting, and restoring water resource quality and quantity.

HOW DO I GET MORE INFORMATION ABOUT THE NORTH RIVER WATERSHED, EVENTS, AND WAYS TO HELP?

www.northriverwatershed.org
Federal, state and local agencies can be more effective and less duplicative by working together.

Overlapping conservation goals and shrinking budgets are opening avenues for diverse partners to collectively target efforts that assist with achieving common goals and comply with changing regulations.

**PARTNERS**

**Drinking Water Source Protection**
- City of Berry—Bays Lake
- City of Tuscaloosa—Lake Tuscaloosa
- Fayette County Commission

**Identification of Potential Health Risks**
- Alabama Department of Public Health

**Forestry**
- Alabama Forestry Commission

**Storm Water Regulation Compliance**
- City of Tuscaloosa
- City of Northport

**Habitat for Imperiled Species**
- U.S. Fish & Wildlife Service
- Alabama Dept. of Conservation and Natural Resources
- Geological Survey of Alabama

**Water Quality/Quantity**
- Alabama Dept. of Environmental Management
- University of Alabama Water Policy and Law Institute
- Fayette County USDA/NRCS
- Geological Survey of Alabama

**Education & Outreach**
- Alabama Dept. of Environmental Management
- University of Alabama Museum of Natural History
- Tombigbee RC&D Council, Inc.
- Fayette County Soil & Water Conservation District
- Alabama Clean Water Partnership
- Alabama Cooperative Extension System—Fayette County
- Cawaco RC&D Council, Inc.

**Business and Industry**
- Patton Geologics, Inc.

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We Can Do More Together
FOR ALL THE WAYS WE USE WATER

Home Use

Industrial Discharge

Agriculture

Recreation

Food Source

Habitat
Come join our team!!

Send an email to
northriverwatershed@hotmall.com
with the subject "TEAM" to
receive email updates and
opportunities OR cut and mail
the below card.

I want to be a part of the North River Watershed Project!

_____ Let me know when volunteer opportunities are available.

_____ Enclosed is a contribution to help with school programs,
clean ups and on the ground projects. (Your contribution is tax deductible !!!)

Name ____________________________________________________________

Address __________________________________________________________________________

City, State, Zip ___________________________________________________________________

Email: __________________________________ Phone: ___________________________

Your information will NOT be shared with others.

MAIL TO: North River Watershed Project c/o Cawaco RC&D
2112 11th Avenue South, Suite 541
Birmingham, AL 35205

Cawaco RC&D and other RC&D Councils are nonprofits whose mission is to provide leadership and coordinate partnerships to promote conservation, development and sustained use of our natural human resources.
It CAN be done and we are doing it !!!
Find out what—inside.
APPENDIX ITEM NO. 6

EDUCATION & OUTREACH PROGRAM SUMMARY
2011 – 2015

Sponsored By The
Black Warrior Clean Water Partnership
### Education and Outreach North River Watershed 2011-2015

Prepared for ABT by Mary Wallace Pitts, Coordinator, North River Watershed (10-30-15)

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<td>Wild Pigs Workshop, Fayette</td>
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<td>Black Warrior State of the Watershed Meeting</td>
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<td>Experts at the Museum - NRW</td>
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<td>Ducks Unlimited Meeting</td>
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<td>Selling Your Timber, hosted by NRW</td>
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<td>Westervelt Forest Operations EMS Environmental Training, Moundville AL</td>
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<td>Alabama Dirt and Gravel Road Workshop, hosted by NRW</td>
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### UNIVERSITY PROGRAMS (Class presentations/field)

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<td>UA Biology Field Tour to NRW</td>
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<td>UWA Biology Dept. Classroom presentation</td>
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### CONFERENCE PRESENTATIONS/EXHIBITS

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<td>ADEM Non-Point Source Conference</td>
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### MISCELLANEOUS

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**NOTES:**

NRW - North River Watershed  
UA - University of Alabama  
UWA - University of West Alabama  
UNA - University of North Alabama  
AWRA - Alabama Water Resources Association  
ADEM - Alabama Department of Environmental Management
APPENDIX ITEM NO. 7

STORM WATER COMPLIANCE ORDINANCE

City of Northport, Alabama
ORDINANCE NO. 05-1545

NORTHPORT NPDES STORM WATER COMPLIANCE ORDINANCE

WHEREAS, on December 8, 1999 Phase II of the Environmental Protection Agency (EPA) Storm Water Program went into effect; and

WHEREAS, Polluted storm water runoff is often transported to municipal separate sewer systems (MS4s) and ultimately discharged into local rivers and streams without treatment; and

WHEREAS, EPA’s Storm Water Phase II Rule established an MS4 storm water management program that is intended to improve the Nation’s waterways by reducing the quantity of pollutants that storm water picks up and carries into storm sewer systems during storm events; and

WHEREAS, the Phase II Rule requires the City of Northport, Alabama to adopt an Ordinance providing rules and regulations for the control of pollutant discharges into the Northport Municipal Separate Storm Sewer System.

NOW, THEREFORE BE IT BE IT ORDAINED BY THE CITY COUNCIL OF NORTHPORT, ALABAMA as follows:

Section 43 entitled “Storm Water Management” is hereby added as follows:

Sec. 43-1. Preamble, findings of fact and intent.

(a) The City of Northport has for a number of years had an erosion control and sediment ordinance intended to provide a measure for the City of Northport to minimize erosion and sedimentation onto city property and to pursue preservation of the quality of the local environment from harmful effects of erosion and sedimentation wherever possible.

(b) However, as required by phase II of the National Pollutant Discharge Elimination System (NPDES) storm water program, as published in the Federal Register on December 8, 1999, and promulgated by the Environmental Protection Agency (EPA) under the Clean Water Act (CWA), a regulated small municipal separate storm sewer system (MS4) operator must develop, implement, and enforce a storm water management program designed to reduce the discharge of pollutants from their MS4 to the "maximum extent practicable," to protect water quality and to satisfy the appropriate water quality requirements of the CWA. The rule provides for the use of narrative, rather than numeric, effluent limitations that require implementation of best management practices (BMPs).
(c) Under the storm water phase II final rule, the small MS4 storm water management program must include the following six (6) minimum control measures, except where a statewide NPDES program exists to address that control measure:

1. Public education and outreach. Distributing educational materials and performing outreach to inform citizens about the impacts polluted storm water runoff discharges can have on water quality;

2. Public participation/involvement. Providing opportunities for citizens to participate in program development and implementation, including effectively publicizing public hearings and/or encouraging citizen representatives on a storm water management panel;

3. Illicit discharge detection and elimination. Developing and implementing a plan to detect and eliminate illicit discharges to the MS4.

4. Construction-site runoff control. Developing, implementing, and enforcing an erosion and sediment control program for construction activities that disturb one or more acres of land or less, if part of a larger common plan or development. ADEM Administrative Code Ch. 335-6-12 implements a statewide construction storm water regulatory program consistent with NPDES requirements for construction activities.

5. Post construction runoff control. Developing, implementing, and enforcing a program to address discharges of post construction storm water runoff from new development and redevelopment areas. ADEM Administrative Code Ch. 335-6-12 implements a statewide construction storm water regulatory program consistent with NPDES requirements for post construction activities.

6. Pollution prevention/good housekeeping. Developing and implementing a program with the goal of preventing or reducing pollutant runoff from municipal operations. The program must include municipal staff training on pollution prevention measures and techniques.

(d) As required by phase II of the NPDES storm water program, a regulated small MS4 operator must identify its selection of BMPs and measurable goals for each minimum measure in the permit application. The evaluation and assessment of those chosen BMPs and measurable goals must be included in periodic reports to the NPDES permitting authority. The City of Northport has prepared and submitted to ADEM a storm water management plan that addresses these elements.

(e) This article is enacted to preserve, protect and promote the health, safety and welfare of the citizens of Northport, Alabama, through the reduction, control and prevention of the discharge of pollutants to the MS4. It is the expressed intent of the city council in enacting this article to provide for and promote compliance by the city with federal and state laws governing the discharge of pollutants from the MS4 and to provide for and promote compliance with the
APPENDIX ITEM NO. 8

POLLUTION PREVENTION PLAN FOR MUNICIPAL OPERATIONS

City of Northport, Alabama
The City of Northport, Alabama

Pollution Prevention Plan
For
Municipal Operations

General NPDES Permit No. ALR40017
Date of Last Revision 3-1-2016
INTRODUCTION
The Pollution Prevention Plan for Municipal Operations Control Measure is for the development and implementation of a program to prevent or reduce pollution in stormwater runoff from municipal operations. This program must include municipal staff training on pollution prevention measures and good housekeeping techniques.

REQUIREMENTS
To comply with the permit, the City must “develop and implement a program with a goal of preventing and/or reducing pollutant runoff from municipal operations.”

The program for this control measure includes:

- Annual employee training;
- Scheduling maintenance activities for right-of-ways and parks;
- Schedules for sweeping of streets;
- Annual inspection and maintenance activities for storm sewers and associated inlets.
- Practices to prevent pollution from land disturbing activities associated with municipal repair and construction activities;
- Good housekeeping practices for fleet maintenance.

EXISTING BEST MANAGEMENT PRACTICES
The City has a history of performing many of the Pollution Prevention Plan’s Best Management Practices that fulfill the requirements of the permit including scheduled street sweeping, annual catch basin inspections and cleaning, vehicle maintenance and washing procedures, and ROW maintenance. The City will continue these existing pollution prevention practices.

BMP #1 – NEW DEVELOPMENT INSPECTION

Description: The City, through staff and/or private engineering firms, will continue to inspect new developments during construction. Inspections are conducted in an effort to reduce storm water pollution from activities associated with land development, particularly soil erosion.

Measurable Goal: Documented record of inspections.

Schedule: Continuous.

Responsible Party: Building Inspection, Engineering Inspection.
**BMP #2 – ENVIRONMENTAL CONTROL INSPECTION**

Description: The City will continue to inspect all land disturbing activities for compliance of existing erosion control ordinances.

Measurable Goal: Report violations to court system.

Schedule: Continuous.

Responsible Party: Environmental Control Officer.

**BMP #3 – SWEEP STREETS**

Description: The City will continue a regular schedule of street sweeping, with increased frequency in trouble areas.

Measurable Goal: Sweep all streets in the City.

Schedule: Two times annually.

Responsible Party: Department of Public Works.

**BMP #4 – CATCH BASIN CLEANING**

Description: The City will clean catch basins on a three (3) year rotating basis. Problematic catch basins are cleaned more frequently.

Measurable Goal: Percentage of catch basins annually.

Schedule: Continuous.

Responsible Party: Department of Public Works.

**BMP #5 – VEHICLE WASHING PRACTICES**

Description: City vehicles and equipment are washed at the public works compound where runoff is captured and drained to an oil/water separator and discharged into the sanitary sewer system.

Measurable Goal: Continue existing practices.

Schedule: Continuous.
BMP #6 – VEHICLE MAINTENANCE PRACTICES

Description: All municipal vehicle and equipment maintenance is performed within a garage which is equipped with an oil/water separator and waste oil collection facilities.

Measurable Goal: Continue existing practices.

Schedule: Continuous.

Responsible Party: Department of Public Works.

BMP #7 – MAINTENANCE ACTIVITIES ON RIGHT-OF-WAYS

Description: The City will continue its current maintenance program for right-of-ways and parks. The program includes litter collection and disposal; mulching grass clippings where practical and minimizing the use of commercial fertilizers when possible.

Measurable Goal: Continue existing practices.

Schedule: Continuous.

Responsible Party: Department of Public Works.

ADDITIONAL BEST MANAGEMENT PRACTICES

The following Pollution Prevention Plan BMP’s will be performed in addition to the City of Northport’s current practices to enhance compliance with its permit.

BMP #8 – HAZARDOUS WASTE RESPONSE PROGRAM

Description: The City will develop and implement a Spill Prevention Control and Counter Measure Plan, in accordance with 40 CFR, Part 112. The plan shall include training for employees and providing spill kits.

Measurable Goal: Training for all municipal employees.

Schedule: Within current permit year.
Responsible Party: Fire Department/Department of Public Works.

BMP #9 EMPLOYEE EDUCATION PROGRAM

Description: The City provides annual training for the appropriate Public Works and Utility employees regarding the importance of storm water pollution prevention and good housekeeping. Training topics include: erosion control, identifying illicit discharges, proper location for equipment maintenance, storm sewer inspections and litter collection. Training targets field supervisors.

Measurable Goal: Training on stormwater related topics for field supervisors in the Public Works and Utilities Departments.

Schedule: Within current permit year.

Responsible Party: Office of the City Engineer/Utilities Director.
APPENDIX ITEM NO. 9

EMPLOYEE TRAINING MANUAL

POLLUTION PREVENTION PLAN

City of Northport, Alabama
The City of Northport

EMPLOYEE TRAINING MANUAL

POLLUTION PREVENTION/GOOD HOUSEKEEPING PLAN
FOR
MUNICIPAL OPERATIONS

General NPDES Permit No. ALR40017

Date of Last Revision: February 11, 2016
POLLUTION PREVENTION/GOOD HOUSEKEEPING
PLAN FOR
MUNICIPAL OPERATIONS

I. INTRODUCTION
In 1972, Congress passed what is now commonly referred to as the “Clean Water Act” to keep pollution out of lakes, creeks, streams and rivers. The Act requires that Northport and similar cities who operate a drainage system, train their employees on the importance of preventing pollution by practicing good housekeeping measures on the job and their work sites.

The two (2) primary potential sources of pollution to local streams come from our sewer system and from our drainage system. This training session will focus on the storm drainage system and will include discussions on:

1. What is considered a pollutant to our drainage system.
2. City Operations and Storm Water Pollution.
3. Good Housekeeping and Pollution Prevention on-the-job.

II. WHAT IS CONSIDERED A POLLUTANT TO OUR DRAINAGE SYSTEM?
In short, anything other than rain water in our drainage system is considered a pollutant (and thus the phrase “Only rain down the drain”). Most of us recognize the obvious pollutants such as: petroleum products, paint and paint thinners, raw sewage, etc. But, there are pollutants that are not so obvious such as: litter (paper, cigarette butts, shopping bags, plastic bottles, etc.), soil erosion, grass clippings, and fertilizers, insecticides and pesticides frequently used in residential gardens and yards.

As you can imagine, the list of pollutants is extensive, so, when in doubt, the best rule is to remember that if it’s not rainwater, it shouldn’t be in the drainage system!

III. CITY OPERATIONS AND STORM WATER POLLUTION
Runoff from rain water is the primary means by which pollution is picked-up and carried to local storm sewers and streams. Items such as disturbed soil, litter, fertilizers and petroleum products left unattended or used improperly and exposed to the elements are potential sources of pollution. In other words, the work we do has the potential to cause pollution.
The following common municipal activities can have a significant positive or negative impact on storm water pollution and prevention:

- **ROW, Street and Grounds Maintenance:** Properly performed, these maintenance activities help to prevent litter, fertilizer and soil erosion sediment from reaching the drainage system.

- **Construction/Repair Sites:** Providing adequate work site protection of disturbed areas helps reduce or eliminate sediment from soil erosion.

- **Drainage System Maintenance:** Accomplished on a regular basis prevents clogging and removes pollutants before they reach local streams. This work should include a program of regular inspection, inlet cleaning and pipe flushing.

- **Vehicle & Equipment Maintenance:** Proper safeguards established for these operations are the first line of defense in preventing pollution by petroleum products.

- **Spills:** The last line of defense in keeping petroleum products from entering the drainage system. Fast reaction to properly contain spills is critical to preventing storm water pollution.

**IV. GOOD HOUSEKEEPING AND POLLUTION PREVENTION ON THE JOB.**

The importance of good housekeeping on City work sites, facilities and operations cannot be overstated. The elimination and/or reduction of pollution from City operations starts with keeping work areas clean and pollutants protected and isolated. The following materials are associated with City operations and are materials which can and do pollute our streams.

**Litter**

Primarily associated with our right-of-ways and streets, litter is unsightly and can easily make its way into the drainage system. Once litter enters the system, it can block pipes, causing localized yard and street flooding and higher drainage system maintenance costs. Eventually, the litter is dumped into local streams. The following good housekeeping practices are important to reduce this pollutant:

- Patrol ROW’s and streets regularly to manually or mechanically collect and properly dispose of litter.
- Follow street sweeping schedules closely to remove litter such as paper, plastic bottles and bags, and cigarette butts from street surfaces and gutters before they enter the drainage system.
- Clean drainage inlets on a regular basis to capture litter before it reaches local streams.
- Insure that work areas remain clean of City and employee trash and disposable products.
- Solid waste crews should not leave remnants of garbage on the ground at collection sites and are to secure solid waste so as to prevent it from leaving the collection vehicle.

Soil Erosion
Soil erosion is primarily associated with Utility and Construction Crews making repairs to the City’s infrastructure (water, sewer, storm pipes and ditches). As rainfall runoff crosses soil surfaces disturbed by construction activities, particles in the form of erosion are picked up and deposited in the drainage system and local streams.

Soil erosion can also come from City right-of-ways and the amount is roughly proportionate to the quality of the ground cover and the steepness of the slopes on which the right of way is located. Poor ROW maintenance often results in poor or thin ground cover which leaves the soil exposed to rain water runoff. Steep slopes increases the speed of the runoff which in turn increases the soil erosion.

Left unchecked, soil erosion can choke ditches and streams reducing their effectiveness, as well as, having a negative impact on the natural bio-system. The following practices are recommended to reduce soil erosion from City work sites:

- Stabilize areas disturbed by construction activities as soon as practical. Sow grass and protect the disturbed area(s) with hay until stabilized.
- Install erosion control barriers (silt fence or hay bales) downstream of disturbed area.
- Maintain a grass filter strip downstream of exposed surfaces and adjacent to streams.
- If possible, plan construction/repair activities when rain chances are low.
- Maintain healthy turf to provide good ground cover and thus protect underlying soils from rainfall runoff.
- Regularly remove leaves or other covers that will damage or kill grass and expose soils to erosion.
- Regular street sweepings can capture sediment from soil erosion before it can enter the drainage system. Always dispose of sweepings at an approved site.
Commercial Fertilizers
Pollution from the improper use of fertilizers is not normally an issue with City operations. More likely, problems with fertilizers come from residential lawns and gardens. Fertilizers have been detected in storm water at toxic levels, even when they are applied as directed on the label. Consequently, it is important that employees recognize that commercial fertilizers can be a problem and recognize that there are alternatives available.

- Mulch grass clippings as area is mowed.
- Substitute compost for commercial fertilizers.
- If chemical fertilizers become necessary, soil test to determine the required rate and composition of the fertilizer needed and follow those recommendations.
- Do not use commercial fertilizers adjacent to streams.

Residual Petroleum Products and Spills
Contamination of storm water by petroleum products originating from City activities is usually associated with vehicle and equipment maintenance. The primary avenues by which petroleum products enter the storm drainage system are accidental spillage and leaking equipment. As with soil erosion, petroleum products are carried to local drainage systems by rainfall runoff as it crosses impervious surfaces that have been contaminated either by leaking vehicles or accidental spills. A very small amount of a petroleum product can pollute a very large quantity of water, so appropriate safeguards and suitable cleanup is important. Remember that a fast response to a spill can limit the amount of contamination and reduce pollution. The following will help to reduce or eliminate petroleum product pollution on City work sites and facilities:

- Floor drains in maintenance facilities must drain to an oil/grease separator and the unit must be maintained and cleaned as recommended by the manufacturer.
- If a leak occurs on a hard surface such as pavement or concrete, use kitty litter, oil dry, or sand to spread over the area. Shovel up the contaminated material and dispose of it in an approved location.
- If the leak occurs on a gravel surface, immediately use a shovel to collect the contaminated soil. If left, a spill can quickly contaminate a larger area. Dispose of the contaminated material in an approved location.
- All Superintendent trucks must have a “spill response kit” to address small spills (less than 25 gallons) on the street or at the work area.
- For spills in excess of 25 gallons, call the Northport Fire Department at 333-3020 or 911.
V. SUMMARY
The following list, although not exhaustive, provides the training point highlights of this handbook:

1. Simply stated, anything other than rain water in the drainage system is considered a pollutant.
2. Rainfall runoff is the primary method by which pollutants enter the drainage system.
3. Good Housekeeping on the work site is the first line of defense in preventing storm water pollution.
4. The materials associated with city operations that are considered pollutants include: litter, sediment from soil erosion, and petroleum products.
5. Superintendents carry a spill response kit in their vehicles for use on petroleum spills that are less than 25 gallons. For spills over 25 gallons employees must call the Fire Department.
EMPLOYEE CERTIFICATION

This is to certify that the employee, whose name and signature appear below, has received a copy of Northport’s employee training manual entitled: *Pollution Prevention/Good Housekeeping Plan for Municipal Operations* and to further certify that the employee has received the required annual training for on this subject.

__________________________
(Print Name)

__________________________
(Employee Signature)

__________________________
(Date)
APPENDIX ITEM NO. 10

EMPLOYEE TRAINING ATTENDANCE SHEET

City of Northport, Alabama
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<td>Utility Crew Chief</td>
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<td>WWTP Lead Operator</td>
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<td>WWTP Superintendent</td>
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<td>Ryan McGraw</td>
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<td>Doug Wilder</td>
<td>Distribution Super.</td>
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Employee Training For
POLLUTION PREVENTION AND GOOD HOUSEKEEPING
IN
MUNICIPAL OPERATIONS

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APPENDIX ITEM NO. 11

SPILL PREVENTION, CONTAINMENT AND CONTROL PLAN (SPCC)

WASTEWATER PLANT

City of Northport, Alabama
SPILL PREVENTION, CONTROL and COUNTERMEASURES PLAN (SPCC)

FOR THE

NORTHPORT WASTEWATER TREATMENT PLANT

3950 30th Avenue
Northport, Alabama 35476

Mayor
Bobby Herndon

City Council
Judy Hayes, District 1               Jay Logan, District 2
Rodney Sullivan, District 3         Bert Sims, District 4
Bart Harper, District 5

Prepared By:
Larry W. Ingram, P.E.
Utilities Director
Al. Registration No. 27136

Approved:
Scott Collins
City Administrator

Revised: November 2015
<table>
<thead>
<tr>
<th>SECTION</th>
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SECTION I: FACILITY DESCRIPTION AND CONTACT INFORMATION

Name of Facility: Northport Wastewater Treatment Plant

Address: 3950 30th Avenue
Northport, Alabama 35476

Location: 33 degrees 12 minutes 54 seconds latitude
87 degrees 35 minutes 54 seconds longitude

Description: The Northport Wastewater Treatment Plant has a capacity of 5 MGD and is situated on approximately 15.75 acres located near the banks of the Black Warrior River at its confluence with Mill Creek (see Figure 1 – Vicinity Map and Figure 2 – Aerial Photo).

Contact Information: Cynthia Davis
Chief Plant Operator (Superintendent)
3950 30th Avenue
Northport, Alabama 35476
Telephone: (205) 752-5907
cdavis@cityofnorthport.org

James McKinney
Assistant Utilities Director – Wastewater Operations & Field Services
3521 3rd Street South
Northport, Alabama 35476
Telephone: (205) 342-3636
jrmckinney@cityofnorthport.org

SECTION II: SITE TOPOGRAPHY AND DRAINAGE

With the exception of approximately 4 acres located along the north boundary of the Plant, the Northport site exhibits gentle slopes of 1% or less. As demonstrated in Figure 3 - Site Drainage, the property is divided into two (2) primary drainage areas: the northern basin consisting of 12.25 acres and draining to Mill Creek and the southern drainage basin consisting of 3.5 acres and draining to the Warrior River.

Approximately 65% of the site is pervious (grassed), 18% impervious (paving, building roof tops and concrete structures) and the remaining 17% consisting of Plant structures such as open tanks, chambers and drying beds. Storm water runoff from the site is collected by a series of swales, ditches and storm sewers and directed to Mill Creek and the Black Warrior River.
SECTION III: POTENTIAL SPILL SITES AND SOURCES OF STORM WATER CONTAMINATION

Materials Inventory: The following is a list of materials located at the Northport Wastewater Treatment Plant that is considered as potential contaminants:

1. Diesel Fuel (used for fuel in standby generator): 2,000 gallons
2. Sodium Bisulfate (used in dechlorination): 4,000 gallons
3. Oils & Lubricants (general equipment maintenance): 50 gallons
4. Sewer sludge
5. Raw wastewater

Spill and Leak Sources: The following are the most likely sources of spills or leaks in the Northport Plant:

1. **Drying Beds:** Although operators are careful to avoid spills of dried sludge onto the service area of the drying beds, beds have the greatest potential for problems because of the frequency in which they are cleaned (as often as 5 days per week).

2. **Grit & Grease Basin:** Although adequate in hydraulic capacity, the “head works” are a constant potential for spills because of the screening process which captures and removes solids which have a propensity to cause equipment blockages – grease, paper, plastics, etc.

3. **Diesel Fuel Tank:** Because of filling operations and bulk storage, this tank is considered a potential threat for spills and/or leaks.

4. **Sodium Bisulfate Tank:** Like the diesel fuel tank, this tank also has the potential for leaks and spills because of bulk storage and frequent filling operations.

SECTION IV: SPILL PREVENTION AND CONTAINMENT

Several measures for the prevention or containment of spills are employed at the Northport Wastewater Treatment Plant:

1. The bulk storage tank for diesel fuel (located along the north side of the Utility Building) is protected by a containment area sufficient in capacity to capture and retain any spills or leaks from the tank.
2. Spillage from “overfilling” of the diesel tank during fill operations is prevented by splash valve sensors in the delivery tanker.
3. A containment area constructed around the sodium bisulfate tank (located west of the sand filters) has sufficient capacity to contain any spills or leaks from this tank as well.
4. Spills resulting from “overfilling” of the sodium bisulfate tank during fill operations is prevented by a “positive mechanical” connection between the tank and the delivery tanker.

5. Plant personnel provide continuous monitoring of the sludge drying beds during filling operations to avoid overflows.

SECTION V: BEST MANAGEMENT PRACTICES (BMP’S)

The following procedures or practices are to be employed by the Northport Wastewater Treatment Plant personnel to prevent, contain and/or respond to spills:

1. Each work day, undertake a general inspection of the plant to insure that all mechanical equipment and spill/containment facilities are operating properly.

2. Inspect diesel and sodium bisulfate bulk storage containment structures daily to ensure that containment area drains are free of debris, are operational and valves for containment area drains are locked in the closed position.

3. Keys to locks for containment area drain valves are to be maintained in the possession of the Plant Superintendent only.

4. Provide continuous monitoring of sludge beds during filling operations to avoid overfills.

5. In an effort to avoid spills, do not overfill equipment buckets and beds during sludge bed cleaning operations. Should a spill occur, operators are to immediately collect and properly dispose of spilled material.

6. Sludge bed aprons and service areas are to be thoroughly swept and washed after bed cleaning to remove any sludge residual.

7. Sludge bed cleaning operations are to be suspended during inclement weather or the threat of inclement weather.


9. Maintain hazardous material spill containment kit dedicated to the Plant’s lab.

10. Maintain sufficient filter socks (8- 5’ x 5” socks, minimum) for use in isolating curb inlets from spills.

11. Maintain a polyurethane pad to seal and isolate the yard inlet from potential spills.
12. Inspect head works daily to insure that grit chamber racks are cleared of debris so that raw sewer drains freely to the plant and does not overflow.

13. Maintain adequate grass cover and/or sufficient mulch material on all open spaces to prevent erosion of site soils.

14. Provide annual sampling of drainage discharge points in accordance with ADEM requirements to monitor contamination level of storm water runoff leaving the site.

15. Inventory spill containment kits weekly to insure adequate incident response materials are maintained on-site.

16. Maintain records of all inspections and drainage discharge samples.

SECTION V: RESPONSE TEAM

The spill containment response team shall consist of the following individuals:
   Plant Superintendent
   Lead Operator
   WWTP Operator IV
   Utility Crew Chief - Wastewater
   Utility Crew Member - Wastewater

SECTION VI: TRAINING

The Plant Superintendent, as head of the Spill Prevention and Response Team shall be responsible for employee training. Training shall be provided no less than twice per year and shall include, but not be limited to, the following general topics:

1. Team responsibilities
2. Individual responsibilities
4. Review of potential spill sites.
5. Review of site material storage and potential contaminants.
6. Bulk storage containment areas.
7. Site drainage areas and sub-areas.
8. Methods for structure isolation in the event of a spill.
10. Use of Vector Truck in responses.