Calhoun County Storm Water Management Program Plan (6-2014)

Prepared for:

Calhoun County Commission
1702 Noble Street
Anniston, Alabama 36201

Prepared by:

Engineering. Environmental. Answers.

417 Martling Road
Albertville, Alabama 35951

P.O. Box 2079
Albertville, Alabama 35950
(256) 891-3458

June 2014

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1. Certification

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 gather and evaluate the information submitted. Base on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information 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.

Mr. Brian Rosenbalm, PE

Calhoun County MS4 Manager

Signature

6/12/14

Date

Engineering. Environmental. Answers.

2. Introduction

On November 16, 1990, the U.S. Environmental Protection Agency (EPA) promulgated regulations, under the Water Quality Act of 1987, setting forth application requirements for National Pollutant Discharge Elimination System (NPDES) storm water permits.

In 1999, EPA promulgated regulations establishing Phase II of the NPDES storm water program. The Phase II program extends coverage of the NPDES storm water program to regulated "small" Municipal Separate Storm Sewer System (MS4s). A regulated "small" MS4 is located within an "urbanized area" as defined by the Census Bureau or as designated by the NPDES permitting authority.

The Calhoun County urbanized area (determined by the 2010 Census) was designated as an operator of a Phase II MS4. Operators must obtain a NPDES permit and develop a stormwater management program for the NPDES permit. Calhoun County was issued Permit number ALR040004. The NPDES regulations require assessment and revision of the stormwater management program in order to continue, to the maximum extent practicable to not cause or contribute to water quality standards exceedances.

The Alabama Department of Environmental Management (ADEM) administers the storm water program for the State of Alabama. Calhoun County's current Permit was issued in February 2011 and modified in February 2012 and will need to be renewed in January 2016. The County will use the information in the yearly reports to revise the plan each year.

This document SWMP (Plan) is intended to outline the goals and scheduling of activities the County will implement during the permit period. The Phase II General Permit for the Calhoun County urbanized area that has been jointly issued for portions of Calhoun County, as well as the City of Anniston, the City of Jacksonville and the City of Oxford. The SWMP, according to Part IIIA of the general permit are the methods and measures used to limit the discharge of pollutants from the County's MS4 to the maximum extent practicable.

Outlined in this document are the county's plans for the activities, BMP's and scheduling to implement the program. It is anticipated that some of the activities will require coordinated efforts between co-permittees and other stakeholder groups. The County's ability to measure the effectiveness of each individual activity's (BMP) effectiveness to satisfy the required minimum control measures will in some cases be difficult at best. The County believes that its plan will move toward meeting the six minimum control measures which are required under the permit. These efforts will, to the maximum extent practicable, help reduce the discharge of stormwater pollutants in order to comply with the Clean Water Act. The details of these measures can be found in Part 3.0 of the Plan.

2.1 Location

Calhoun County is located north of Interstate 20 with Interstate 59 located to the north and west of the County. Birmingham lies approximately 50 miles to the west and Atlanta is 80 miles to the east. The population of Calhoun County is approximately 117,000. Significant urbanized areas within the County are the Cities of Anniston, Jacksonville and Oxford.

2.2 Responsible Party

The Calhoun County Commission is the responsible entity for the MS4 program. Mr. Brian Rosenbalm administers the MS4 program for the County. Mr. Rosenbalm has oversight of the SWMP and compliance with Phase II Stormwater Permit. Various departments and individuals working for the County have responsibility for residential and commercial construction and conducting erosion and sediment control inspections. The County has established a baseline of water quality from previous stormwater sampling events. The County has various public education and outreach programs; and assisted the various partner organizations and municipalities. The following individuals should be contacted to address questions or concerns regarding the County's MS4 program.

Commission District 1; Commissioner **Fred Wilson**
Commission District 2; Commissioner **Tim Hodges**
Commission District 3; Commissioner **Don Hudson**
Commission District 4; Commissioner **John "JD" Hess**
Commission District 5; Commissioner **Rudy Abbott**

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1702 Noble Street
Suite 103
Anniston, AL 36201
Phone: 256-241-2800
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Mr. Brian Rosenbalm, PE
160 Seaton Drive
Anniston, Alabama 36205

Mr. Van Hollingsworth
Sub Division Inspections

3.0 Storm Water Management Program Requirements

The County is committed in achieving the conditions of the permit, which will provide improved water quality through the reduction of pollutants in stormwater discharged to the waters of the State. The six minimum control measures which will be addressed in a Storm Water Management Program plan are:

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

3.0.1 SWMP Plan Implementation

The permit, designated NPDES number ALR040004, was issued in February 2011 and modified February, 2012 and is a five year permit set to expire January 16, 2016. Calhoun County recognizes its obligation of reducing the discharge of pollutants to the "maximum extent practicable", protecting water quality and satisfying the appropriate water quality requirements of the Clean Water Act. It is the County's expectation that their Plan will be evolve based on the results of each proceeding year's activities as each of the BMPs become fully implemented and evaluated during the permit period.

The County's Program continues to move toward the intended goals set forth in the plan. The County realizes that it has ground to cover to achieve the intended goals of the Permit. The County intends to work with the municipalities within its urbanized area and schedule joint activities to meet the goals of the proposed plan. However, it should be understood that the County's proposed implementation schedule for some of the activities may be less the accurate due to scheduling conflicts.

It must be recognized by all of those involved, the MS4 program is an unfunded mandate and there are significant costs to the County for fulfilling the obligations of this program. The County will manage the costs of the MS4 program within its budget and manpower limitations and with due consideration of its obligations to the residents of Calhoun County. The County will, during the remainder of the permit period, move forward with the intended implementation of the various BMPs of the Plan. The implementation dates for the various BMPs are designed to provide manageable scheduling of the Program's Implementation during the remainder of the permit period.

3.0.2 Measuring the Effectiveness of the SWMP Plan

Each of the minimum control measures is interconnected and has an impact on the overall effectiveness of the SWMP. Therefore, the effectiveness of a specific BMP and how its impact is measured is difficult at best. To evaluate the overall effectiveness of the SWMP, the County will utilize two mechanisms:

(1) The County will prepare a survey which will be distributed at permit offices, licensing locations, Home-centers, real estate offices, local CoOps, workshops and to municipal and county employees. The Survey will be distributed beginning in January each year and the results tabulated in February, to be included in the Yearly Report. A limited example of a survey that the County will pattern their form after is presented in the Appendix (Boulder Baseline Survey). The County's survey will be used to gauge the understanding of the respondents of how county residents and businesses' actions and their daily activities affect storm water pollution in the County. The County will ask survey responders to identify as a Residential Client, Contractor, Municipal employee or Business owner. Each of the minimum control measures will be addressed in order to gauge the respondents understanding of stormwater issues in the County. The results of the survey will be reviewed by the County to gauge where changes and updates could be made to improve the SWMP Plan.

(2) The County will continue to utilize dry weather sampling and compare the results to previous sampling locations in the County.

3.1 Public Education and Outreach

The public has a general lack of understanding of what actions negatively affect and impact stormwater quality. Informing and educating the businesses, municipal employees and the general public may be the most important measures taken to reduce pollution of stormwater. The following BMP's will be used to educate the general public, businesses, homeowners, landscapers, contractors, developers, municipal staff and others. Each target audience will be outlined in these BMP's.

Targets: Proposed targets and areas of concern

- **General Public** (homeowners and citizens)
  - Potential contributors of stormwater pollution through activities such as illicit discharges and over-fertilization of lawns. The primary pollutants potentially contributed by this target audience are nutrients and pathogens.

- **Engineers, Developers and Contractors**
  - Potential contributors of stormwater pollution through development and construction activities as well as engineering design of stormwater pollution prevention best management practices. The primary pollutants potentially contributed by this target audience are sediment and nutrients.
- **Landscape companies**
  - Potential contributors of stormwater pollution primarily through lawn maintenance activities. The primary pollutants potentially contributed by this target audience are excess nutrients.
- **Golf Courses and recreational areas**
  - Potential contributors of stormwater pollution primarily through grounds maintenance activities. The primary pollutants potentially contributed by this target audience are excess nutrients.
- **Local businesses**
  - Potential contributors of stormwater pollution through activities such as illicit discharges and daily business activities. The primary pollutants contributed by this target audience are excess nutrients and pathogens.

The County's public education and outreach program is designed to address the stormwater pollutants of concern, but generally focuses on the pollutants which could impair water bodies in the county. These specific pollutants include:

- **Nutrients (primarily Total Phosphorus)**
- **Sediment**
- **Pathogens**

The public education and outreach strategy for each target audience will vary depending on the type of audience, type of pollutant contribution, potential risk and impact of pollutant contribution and current level of education of each target audience relative to the County's stormwater management program.

The success of the County's public education and outreach program will be gauged by the results of the planned yearly Survey. In addition the County will compare the results of water quality monitoring to previous monitoring results to gauge the level of success in the community regarding the role of the BMPs in the County's stormwater management program. Specific components and goals within our public education and outreach program will consist of, but not be limited to, the following best management practices (BMPs):

Best Management Practices (BMP) #1
Target: General Public, Businesses and Construction activities

- ***Description*:** Radio, Television and Newspapers are good outlets for fact distribution to the public. Public service announcements (PSA) aired on local television and radio, half and full page informative ads in local newspapers, pamphlets and other materials distributed at utility offices and with utility mail outs will be used as distribution points for education materials to the residents of Calhoun County. Prior to September 30th, 2014 the county will work with local media outlets to air/distribute a number of PSAs. The following are examples of media which will need modification to fit Calhoun County. These examples were taken from the Tennessee website. The second example "Fluid Rainbow" can also be a radio ad. "Everyday Things" is 15 seconds, the others are 30 seconds, to be aired quarterly.
  http://cfpub.epa.gov/npstbx/files/TN_Waterworksbikers.mpg
  http://cfpub.epa.gov/npstbx/files/TN_Waterworkseverydaythings.mpg
  http://cfpub.epa.gov/npstbx/files/TN_Waterworksfluidrainbow.mpg
  The county intends to use its public survey to gauge the effectiveness of this measure.
- ***Goals/Timeline:*** PSA's will air on radio and television every quarter beginning in September and subject to programing schedules of the local media providers. Public service ads and printed ads will be placed in Sunday edition of newspaper twice a year, beginning in August of 2014. The Sunday addition typically has the highest sales numbers with a potential distribution to 27,000 customers. Pamphlets and educational material will be distributed during each calendar quarter beginning in August 2014 during the billing cycle to existing public water and sewer/garbage customers and provided as handouts to new accounts that are created. The effectiveness of this BMP is in the number of distributed copies of the documents.
- ***Timeline*:** The County will continue to utilize this program as a part of the BMP and the effectiveness will be evaluated yearly for progress. The methods outlined below will be utilized as part of the public education and outreach process.

Responsible Contact: Brian Rosenbalm, Calhoun County

Methods:

1. **Distribution of Publications**

Where deemed appropriate, the County will utilize mail outs, newsletters, or inserts quarterly with utility bills such as waste/trash collection mailed to citizens of Calhoun County. The distribution will start with the October billing cycle, on or before the end of the month and will reach a large pool of the general population. The county expects to begin distribution before the end of October

2014. The County's goal is to prepare up to four (4) stormwater-related articles/pamphlets in utility bill mail outs per year. The information/articles will reach a general public target audience.

The County will distribute a bookmark "Clean Water, Everybody's Business" which can be distributed at information desks, county permit offices, Courthouse, Public Utility offices, CoOps, Home Centers, Real Estate offices and in mailouts. Unlike other communication vehicles, pamphlets and brochures can be distributed in many locations. The County expects to team with the co-permittees to publish a minimum of two (2) stormwater brochures per year and to make those brochures available to the public at County and City municipal facilities, County and City functions and to also place links to stormwater related documents on the County's Stormwater webpage. This information will target a general public target audience. The effectiveness will be gauged through the Annual Stormwater Survey distributed in January.

2. Newspaper, Radio and Television

Various local publications covering local stormwater/environmental issues are a means for disseminating information to a large and diverse group of residents most directly impacted by these issues. Informative articles can provide an independent point of view. The reader is not forced to rely on information generated by a single source (i.e. the County's use of newsletters or brochures). The County will utilize various local publications, with topics covering appropriate stormwater topics:

- "An overview of stormwater pollution, including runoff from residential and commercial properties, farms, construction sites, automotive facilities, forestry operations"
- "Information targeted at homeowners which provides tips on a number of simple things that homeowner's can do to prevent stormwater pollution"
- "Discuss the importance of keeping trash, chemicals, and other pollutants out of storm drains"

The County will utilize local media outlets, Newspapers (Anniston Star, Jacksonville News), Television (TV24), Radio (97.9 FM, 94.3 FM) and seek their participation in getting the message out beginning prior to September 30, 2014. The County will track the use of PSAs through in a database and will provide a listing of the subjects aired. The County will provide information on its stormwater program to the local newspapers and encourage the dissemination of the program's information. Newspaper articles will reach a general public target audience. The effectiveness will be gauged through the use of the Annual Stormwater Survey distributed in January.

3. Stormwater Webpage

Citizens often go to the County and City websites to obtain information on items of community interest. The website is accessible 24 hours per day and can serve citizens that do not have the time or the ability to physically meet with staff during normal working hours. The County has created a portion of its webpage which answers some questions concerning the County's Stormwater program http://www.calhouncounty.org/highway/stormwater.html). Links to the County's Plan and Annual Reports will be provided on the Webpage. The County will expand on the current Webpage information to include such information as the County stormwater policies, related City Ordinances, water quality sampling data, design manuals and links to related sites which are available to the public. This information will all be available through the Webpage by the end of September, 2014. The County will continue to update the Stormwater Webpage quarterly to provide current survey results, water quality sampling reports and information of interest concerning stormwater related issues within the county as new information becomes available. The Stormwater Webpage will reach a general public target audience. The effectiveness of the webpage will be determined by the number of "hits" the page receives.

Best Management Practices (BMP) #2

Target: School age Children (Kindergarten-12th Grade)

- ***Description***: There are a number of effective ways to reach this target audience through videos, live presentations, handouts and classroom activities. When possible, coordinate with each school system to work materials into relevant subject matter and topics, similar to:
  - *A Placemat: "Take the Stormwater Challenge"*
  - *Kid's Stormwater Stickers*
  - *Bookmark: "10 Things You Can Do to Prevent Stormwater Runoff Pollution"*

Residual education will be noticed as a result of parents viewing handouts that younger students bring home.

- ***Goals***: Prior to the 2014-2015 school year, The County MS4 Manager will meet with the Calhoun County Board of Education and the Home School Association to determine the activities and information for the coming school year. Material will continue to be distributed to Kindergarten, 3rd Grade, 6th Grade, and 9th Grade classes. After three years, all school children that were in school at time of implementation will have been exposed to storm water awareness materials. Measuring the effectiveness of the BMP will be gauged by the number students participating in the activities, and the results of the Annual Stormwater Survey.

- ***Timeline***: The County will continue to utilize this BMP as part of the County's stormwater education process. Materials will be incorporated in the Earth Day Programs of the County Schools. This BMP will need the school system to assist in evaluating the progress and the and possible program modification. Implementation will require the cooperation of all primary education entities within the county.
- ***Outlets***: Calhoun County Board of Education, Oxford City Schools, Anniston City Schools and City of Jacksonville Board of Education.

Responsible Contact: Brian Rosenbalm, Calhoun County

Method:

1. Earth Day Activities

Earth Day is an event in the County. The County Commission has created and implemented environmental activities and events aimed at educating citizens of all ages on the importance of protecting our environment. This includes the effects of pollution on the rivers and lakes and how they are affected by stormwater runoff. The Earth Day event is sponsored by the County Extension Service. Calhoun County Earth Day was held in Calhoun County Schools 4-9-2014 and & 4-10-2014 The County will continue to provide Earth Day activities during the course of this permit cycle. Earth Day activities primarily reach a general public and school children target audience.

Best Management Practices (BMP) #3

Target: Homeowners, Developers, Contractors and Businesses

- ***Description***: Residual effects from the previous two BMP's will be seen due to the fact that most homeowners, developers, contractors and business owners are one in the same or they read the newspaper, watch television, listen to radio or have children in schools. In addition brochures and pamphlets can be distributed to this target when license and permits are bought and awarded.
- ***Goals***: Developers, Contractors and businesses will be furnished awareness materials when building permits and business licenses are purchased and at yearly renewals of an existing license.
- ***Timeline***: The efforts to educate this group will continue throughout the year with the distribution of materials to the target audience at the various locations in the County where licenses and permits are obtained. The County will print and distribute materials:
    - **"Don't Get Caught Off Guard by E-Waste Contaminants"**

This information will be placed at County Extension office, and Calhoun County EDC office. This BMP's effectiveness will be evaluated yearly through the numbers of distributed copies, licenses and permits issued through County facilities and the yearly MS4 Survey.

Outlets: Jurisdictional License Offices, Jurisdictional code enforcement officials, Homeowners' Associations, Contractor Associations.

Responsible Contact: Brian Rosenbalm, Calhoun County

Methods:

1. Public Presentations

The County will utilize organizations such as the Home Builders Association of Greater Calhoun County and the County Extension Service resources to assist with presentations for public meetings, conferences and workshops. The County's goal will be to discuss and distribute materials at two presentations, one (1) in August and a second in October. The target audience for public presentations will vary depending upon the organization requesting the presentation. Target audiences for presentations will include some of the following: schools, environmental stakeholder groups, local Civic groups, City Council, developers, contractors, engineers and homeowners affected by the Phase II program.

2. Workshops (Public and County Staff)

In an effort to educate contractors, developers, engineers and County staff, the County will continue with workshops where stormwater management is incorporated as a portion of the presentation. The content of these workshops focuses a number of issues including local stormwater issues of concern. The County's goal is to conduct a minimum of two (2) workshops per year to continue to reinforce the importance of the MS4 program. Examples of these workshops include the annual Erosion and Sediment Control workshop and the annual Spill Prevention Control and Countermeasure (SPCC) workshop. Other workshops may be planned as needed and as budget allows. Workshops will reach a diverse target audience group including developers, contractors, engineers and county staff. For example, the Erosion and Sediment Control workshop targets developers, contractors and engineers, while the SPCC workshop primarily targets county staff who are involved with chemicals and petroleum products on a daily basis.

Measure of Success

Overall success of our public education and outreach program will ultimately be gauged by the awareness of the public of the general water quality in our lakes and streams. The water quality is in turn gauged by the results from our water quality monitoring program. The level of public awareness, regarding their role in the County's stormwater management program, will be gauged by the response to the Annual Survey.

3.2 Public Involvement and Participation

The public involvement and participation control measure along with public education and outreach are dependent on each other for their success. It is hard to determine which is more critical. The County believes that educating the public will be the cornerstone that will make this SWMP a success while public involvement and participation in the program will be the mortar that holds these two together. The County knows that making available the information concerning the importance of managing stormwater pollution is paramount in stimulating the public's desire and interest of participation in the County's MS4 program. The County will have to actively partner with the Cities of Jacksonville, Oxford, Anniston and Jacksonville State University whenever possible to take advantage of resources, etc. to advance this control measure.

The County intends to involve the general public in the development and implementation of its stormwater management program by soliciting public input, facilitating the partnerships with the Cities and by providing activities and opportunities to engage the general public in its stormwater program. In addition, the County will further involve the general public in the development of the County's SWMP by encouraging feedback through its webpage, encouraging feedback through the County Commissioners, County MS4 Manager and the Annual Survey.

Target: General Public, Government Leaders, Civic Organizations and Associations

Initially it will be important to bring the entities within the County, whom are covered under this permit, together to assist in advancing the minimum control measures and participate in improving the plan going forward. Awareness of the SWMP plan by government officials and all involved parties is critical to making the plan a success. It is important to involve the surrounding communities in the SWMP plan and will be important to branch out into the public to seek their cooperation and involvement.

- **General Public** (homeowners and citizens)
  - Potential contributors of stormwater pollution through activities such as illicit discharges and over-fertilization of lawns. The primary pollutants potentially contributed by this target audience are nutrients and pathogens.

- **Engineers, Developers and Contractors**
  - Potential contributors of stormwater pollution through development and construction activities. Engineers can provide water resource protection through engineering design of proper stormwater pollution prevention best management practices. The primary pollutants potentially contributed by this target audience are sediment and nutrients.
- **Landscape Companies**

  - Potential contributors of stormwater pollution primarily through lawn maintenance activities. The primary pollutants potentially contributed by this target audience are excess nutrients.
- **Golf Courses**
  - Potential contributors of stormwater pollution primarily through golf course maintenance activities. The primary pollutants potentially contributed by this target audience are excess nutrients.
- **Local Businesses**
  - Potential contributors of stormwater pollution through activities such as illicit discharges and daily business activities. The primary pollutants contributed by this target audience are excess nutrients and pathogens.
- **Agriculture**
  - Potential contributors of stormwater pollution through cultivation, fertilizer application.

The success of the County's public involvement/participation program will ultimately be gauged by the public's support for the County's stormwater management program, the level of community involvement in the County's stormwater management program and the level of awareness in the community regarding their role in the County's program. The County will utilize its Annual Survey to measure the effectiveness of the Program components. Specific components and goals within our public involvement and participation program will consist of, but not be limited to, the following best management practices (BMPs):

Best Management Practices (BMP) #1
Target: Government Leaders and responsible representatives

- ***Description:*** Participation of the target audience is critical in engaging the general public. Seeking the involvement of a select committee will broaden the support of the SWMP. An Advisory Committee made up of appointed citizens and volunteers, selected by the County Commissioners will assist the County MS4 Manager with Program review, yearly review of survey results, and citizen feedback of recommendations for updating the plan.
- ***Goals***: Create a planning committee utilizing representatives from the various parties involved and points of contact for their respective area (City of Anniston, City of Jacksonville, City of Oxford and Calhoun County).

Timeline: The appointment of the **Citizens MS4 Advisory Committee** will follow each election cycle for County Commissioners. The County MS4 Manager will meet with Commission to discuss the formation/appointment of a Citizen MS4 Advisory Committee. The MS4 Committee will be considered only after November 2014. Should meet by December 15, 2014

Responsible Contact: Brian Rosenbalm, Calhoun County

The County's public involvement/participation program is designed to address all stormwater pollutants of concern, but also focuses on the pollutants for which waterbodies within the County. These specific pollutants include:

- Nutrients (primarily Total Phosphorus)
- Sediment
- Pathogens

The public involvement/participation strategy for each target audience will vary depending on the type of audience, type of pollutant contribution, potential risk and impact of pollutant contribution and current level of education and involvement of each target audience in the County's stormwater management program.

Overall success of the public involvement/participation program will ultimately be gauged by the public's support for the County's stormwater management program, the level of community involvement in the County's stormwater management program and the level of awareness in the community regarding their role in the County's stormwater management program.

Specific components and measureable goals within the public involvement/participation program will consist of the following best management practices (BMPs):

a. Citizens Advisory Committee

Both the EPA and ADEM recommend that the public be included in developing, implementing and reviewing stormwater management programs. One method for initiating this involvement is through the use of a citizen's advisory committee. Communities that allow citizens representing diverse backgrounds and interests to participate in such a committee are far more likely to gain community support through implementation. The Committee will be used to assist the County MS4 Manager with review of current policies, brochure content, educational material and proposed ordinances, survey results and plan updates. The MS4 Committee will be considered only after election, November 2014. Should meet by December 15, 2014

The County will actively participate with the Citizens Advisory Committee. Part of the committee's duties will be to reach out to the major representatives of the target audiences for their input.

Best Management Practices (BMP) #2
Target: General Public, Civic Organizations, Clubs and Associations

- ***Description/Goals***:
- The County is in the process of hiring staff to assist in all of the MS4 Requirements. One of the major duties of the position will be to involve the general public, clubs, organizations and associations in the planning and implementation of stormwater control and pollution prevention in the covered area.
- ***Timeline***: Contact with the public, organizations, clubs and others has begun. The County is seeking participation in the activities planned during the year. In subsequent years, appointments or request for members of these organizations and the public will be added to the planning and steering committee from the previous BMP.
- ***Outlets***: RC&D Council, Alabama Extension Service, NRCS, Local watershed groups and conservation organizations, Boy Scouts of America and the Girls Scouts.

Responsible Contact: Brian Rosenbalm, Calhoun County

a. Watershed Organizations

There are a number of organizations active within Calhoun County which will be approached to participate and be involved with the County's SWMP:

- **Alabama Bass Federation Inc.**
- **Alabama Land Trust**
- **Anniston Outdoor Association**
- **Chattowah Open Land Trust, Inc**
- **Community Against Pollution**
- **Environmental Policy and Information Center**
- **Jacksonville State University Water Quality Lab**
- **National Wild Turkey Federation - Alabama Chapter**

These grass root organizations have a vested interest in preserving the water quality of Calhoun County and will be pursued to participate in the County's MS4 program. The County will continue to participate in, support, and work closely with, these organizations. Watershed organizations potentially reach all of the target audiences.

b. Free Landfill Day Program

The County has a Free Day is held on the third Saturday of: January, April, July, October. Information is found on Calhoun County website and announced at County Commission meeting and signage is placed along entrance road to landfill. Citizens are encouraged to deliver limb and leaf debris and other construction and demolition debris to the landfill. This material could

otherwise potentially make its way to the stormwater discharge and eventually making its way into local streams, lakes and rivers. Effectiveness will be gauged by the change in average participation (loads/day) during the effective period.

c. Storm Drain Marking Program

The County will continue to engage in a storm drain/outfall marking and mapping program. The County will continue to upgrade the map the outfall locations and mark the locations with warning signs informing the public of the potential consequences of dumping at these locations. Printing of updated No-Dumping Signage to incorporate information about the contamination of stormwater will be completed by November 1, 2014.

The County will continue the marking and mapping program, updating and replacing damaged or missing signs. The County will investigate making the list of coordinates of the outfall locations available to such groups as the Boy Scouts to assist with community involvement in disposal of debris in the vicinity of the drainage outfalls. The County will work with these organizations to assist with an annual Outfall Clean-Up; similar programs are used in other locations by Boy Scout troops, student organizations, environmental groups and private citizens. The Storm Drain Marking and Cleanup program primarily engages the general public, local schools, and local civic and environmental stakeholder groups.

d. Webpage

The County MS4 Manger will meet with Webpage staff September 30, 2014 concerning Webpage updates and provide information on the materials needing to be listed, and dates of implementation. In an effort to provide the general public with an additional means of reporting potential stormwater concerns, the County will provide information on its webpage for Citizens to comment on the current stormwater program, information on methods for identifying suspected illicit discharges, registering a complaint of suspected illicit discharge or the methods for providing recommendations for improvements to the existing plan. The feedback information which is received will be forwarded to the County MS4 Manager and an investigation will be initiated where necessary. The webpage information is a valuable tool for assisting County personnel in responding to citizen concerns. The website will continue to be available during this permit cycle and will primarily engage a general public target audience.

e. Other Public Involvement Initiatives and Special Projects

The County will actively pursue new and innovative programs to involve the public during this permit cycle and will work to implement programs that are likely to be successful in the community.

The County will continue to engage the public in special projects that may be initiated by the County or through coordination with watershed stakeholders. Specific examples of these types of projects include Water Body and or Stream Restoration Projects.

- ***Schedule***: Updating current storm sewer system map is in effect and will continue. Storm sewer system map is on file currently.

3.3 Illicit Discharge Detection Elimination (IDDE)

The County has no Legal Prohibition and Enforcement authority under state law

EPA recognizes that some permittees may have limited authority under State, Tribal or local law to establish and enforce an ordinance or other regulatory mechanism prohibiting illicit discharges. In such a case, the permittee is encouraged to obtain the necessary authority, if possible. The County will involve those municipalities where such ordnances are in effect. Currently the County Commission utilizes the following state law:

> ***Public Nuisances". Section 45-8-172.01 , Code Of Alabama 1975, Public nuisances***
> ***All weeds*** *growing upon streets or sidewalks or upon private property subject to this part within the city limits of the city or in unincorporated areas of the county, which attain such large growth as to become a fire menace when dry, or which are otherwise noxious or dangerous, and any* ***accumulation of trash, rubbish, junk or debris****, or any* ***unsightly or dangerous walls****, or any* ***abandoned or unsafe construction of any kind or nature****, or* ***motor vehicles not in usable condition****, or any* ***debris of a burned building****, or any* ***abandoned or unused swimming pool,*** *or any* ***abandoned wells or cisterns****, may be declared to be a public nuisance by the city governing body or by the county commission, and thereafter abated as provided in this part.*

The **Calhoun County Environment and Enforcement Office** was established on January 1, 2000 by the Calhoun County Commission. The initial purpose for establishing this office was to provide Calhoun County with a work force "Litter Control" to remove unsightly litter, and illegal dumps from the county highways, byways, and public areas. Over the years, the office has expanded its duties into areas similar to that of code enforcement in other counties. To date this office is responsible for Environmental Enforcement regarding Alabama's Solid Waste Laws, Criminal littering, Calhoun County's "Public Nuisance Law", Mosquito Control, and the processing and assignment of Court Ordered Community Service. If within its authority, the County will take steps to mitigate illicit discharges which it is made aware of. The County will utilize the Calhoun County Environmental Enforcement Office and County Highway Department staff to record information on suspected IDDE. Reporting forms are under evaluation and will be available by September 30 2014. Information will be forwarded to the attention of the County MS4 Manager.

Based on the findings of the County MS4 Manager, incidents will be reported to the ADEM. All reporting forms will be followed up with an action report.

The County's illicit discharge detection and elimination (IDDE) minimum control measure is coordinated by the County MS4 Manager to actively locate, identify and correct illicit discharges to the MS4 during the permit cycle. The County will continue to manage, enforce and expand its IDDE minimum control measure where possible and utilize local and State agencies to enforce illicit discharges where practicable.

The primary target audiences within the County for the IDDE program and the rationale for selecting these audiences are listed below:

- **General Public** (homeowners and citizens)
  - Potential contributors of illicit discharges through activities such as dumping grass clippings, or dumping paint or motor oil, into a storm drain. The primary pollutants potentially contributed by this target audience are based on the material being improperly disposed.
- **Developers, Contractors and Homebuilders**
  - Potential contributors of illicit discharges through activities such as sediment being released from a construction site into a waterbody and dumping paint or concrete wash water into a stormwater outfall. The primary pollutants potentially contributed by this target audience are specific to the material being improperly disposed of and could include sediment, petroleum-based products, or other chemicals.

- **Agricultural Activities**
  - Potential contributors of illicit discharges through activities such as cultivation of soils, fertilizer and pesticide application

The County's IDDE guidelines is designed to address all stormwater pollutants of concern, and also is specific to the nature of the discharge. Examples of these pollutants could include:

- Nutrients (primarily Total Phosphorus)
- Sediment
- Pathogens
- Petroleum-based products
- Paints, concrete, grass clippings
- Agricultural specific chemicals

The IDDE strategy for each target audience will vary depending on the type of audience, type of pollutant contribution, potential risk and impact of pollutant contribution and current level of

education of each target audience on the County's IDDE program and previous IDDE issues with the target audience.

The County will gauge the success of its IDDE program by having accurate and updated storm sewer system maps, follow-up of reported illicit discharges, and assessing the level of public awareness to potential illicit discharges through the use of the Annual Survey, incident reports, and follow up action reports.

Specific components and measureable goals within our IDDE program will consist of the following program components:

This control measure carries a lot of significance in the efforts to control storm water pollution. The County has a Storm Water Outfall Map is updating it annually. Familiarization with coverage area is a necessity. It is difficult to determine discharges to the system that are not specifically evident or that may be an established discharge and not from new construction or a known facility. IDDE is very critical and until public knowledge on the sources that cause illicit discharges and the effect of storm water pollution has taken hold it is even of more importance.

- ***Schedule***: Continue developing and updating our storm water outfall system map that shows all of the outfall points within the permit coverage area watersheds and sub watersheds and any receiving streams in the area and include links to this information on the webpage. The Map should be considered an evergreen document that will be continually updated.

Storm Sewer System Map

The County completed the initial mapping of its storm sewer system in 2003. The mapping is maintained in a Geographical Information Systems (GIS) Database. Detailed information on pipe size, pipe material, flow direction, inlets, manholes, bridges, box culverts, detention ponds and headwalls are provided on the map. The County will be working to update the storm sewer system maps during each permit cycle.

Illicit Discharge Ordinance

Section 3(B), Paragraph 3(a)(iii) of the NPDES General Permit Number ALR04004 states "To the extent allowable under State and local law, effectively prohibit, through ordinance, or other regulatory mechanism, non-stormwater discharges into your storm sewer system…….and implement appropriate enforcement procedures and actions."

The County has no authority to implement an ordinance to enforce through law the Illicit Discharge of Material into the County's MS4. However, as mentioned above, the Commission will determine if Calhoun County's "Public Nuisance Law" can be utilized as a tool of the SWMP

to combat IDDE. The County will use whatever means necessary to monitor and document the illicit discharge and report illicit discharges to the Calhoun County Environmental Enforcement Office and the ADEM for follow up actions.

The County will continue to record and act on all reported illicit discharges. The County will notify the affected municipalities where appropriate and follow up with notification of the State where required or where further action is required. The County MS4 Manager will prepare a follow up report of the actions taken based on the reported information.

Stormwater Outfall Reconnaissance

In 2014 the County MS4 Manager began stormwater outfall reconnaissance. The purpose of the activity is to conduct the inspection of stormwater outfalls documenting the GPS location and conditions at the stormwater outfall. County staff will document illicit discharges as well as potential illicit discharges. The County's goal is to prioritize those areas of illicit discharge for regular inspection as timely and efficiently as possible with the current budget and staffing allowed.

Illicit Discharge Reporting Form

In 2014, the County MS4 Manager is developing an illicit discharge reporting form (available September 30, 2014) that residents can download, complete and e-mail back to the Manager upon discovering a potential illicit discharge. Residents have 24-hour access to this form through the County's webpage. This form assists the County in tracking and responding to illicit discharges. The County will continue to use this reporting form during this permit cycle. The Illicit Discharge Reporting Form generally affects all of the target audiences.

Household Hazardous Waste Collection Day

During 2014 the County will investigate the resources required to share the participation of a county wide, annual, Household Hazardous Waste Collection Day. The overall design of the plan will be to allow and encourage the citizens of the county to drop off hazardous household chemicals at a collection site, free of charge. The items are then disposed of in a safe manner, eliminating the possibility of these items being improperly dumped into local streams. The County hopes to initiate this plan late in 2014 early 2015 if it is determined there is a public need for this program. This program primarily affects the general public target audience.

Other IDDE Initiatives

The County will actively pursue new and innovative programs to detect and eliminate illicit discharges during this permit cycle and will work to implement programs that are likely to be successful in the community. In the past the County has conducted limited stormwater sampling at randomly selected outfall points and will continue this practice into the future to gauge the effectiveness of the program.

3.4 Construction Site Storm Water Runoff Control

ADEM Administrative Code 335-6-12 implements a state-wide construction storm water regulatory program consistent with the NPDES requirements for construction storm water control.

There are no Calhoun County regulations requiring construction sites to have BMP plans. However, examples of EPA provided storm water pollution prevention plans are provided on the web page. The Calhoun County Environmental Enforcement Officer will be utilized to report on possible violations which would affect the NPDES permit.

The primary target audiences within the County for construction site stormwater runoff control program and the rationale for selecting these audiences are listed below:

Target: New Development and Re-Development Sites, Contractors and Developers.

- **Developers, Contractors and Homebuilders**
  - Potential contributors of stormwater pollution through development and construction activities. The primary pollutant contributed by this target audience, as it relates to construction site stormwater runoff, is sediment.
- **Engineers**
  - Responsible for designing effective construction site best management practices plans (CBMPPs) to minimize the potential for sediment runoff during development or construction activities.

The County provides review and recommendations of plans for developers regarding construction site stormwater runoff control designed address stormwater pollution from sediments. The County uses the latest version of the Alabama Handbook as its guideline for the management of stormwater runoff at construction sites.

The strategy for the target audiences described above will vary depending on the type of audience, potential risk and impact of pollutant contribution and current level of education of each target audience on the County's construction site stormwater runoff control program.

The success of the County's controlling construction site stormwater runoff will ultimately be gauged through the number of construction site inspections, the number of improper discharge cited and eliminated, and the compliance and the documentation and proper operation and maintenance of construction stormwater BMPs. The areas of the County outside the boundaries of the municipalities have little construction in excess of 1-acre. Where the qualifying construction areas fall within the jurisdiction and regulation of the County, the County will review construction BMPs and perform inspections as required by the regulations. In addition to review the design and

implementation of effective construction best management practices plans and the timely response from contractors and developers regarding deficiencies found on construction sites.

Overall management and implementation of the County's stormwater construction site stormwater runoff control initiative will be the responsibility of the County's Building Inspector. Specific components and measureable goals within the County's construction site stormwater runoff control guidelines will consist of the following program components:

1. Violation Enforcement Plan:

A Qualified Credentialed Inspector (QCI) is available to each municipality and county department covered under this permit for qualifying projects. Annual training will be required to maintain good standing as a QCI. The County will attend annual workshops for refresher training provided by the ALDOT. The county has five (5) Qualified Credentialed Inspectors at its disposal.

Qualified Credentialed Inspector (QCI) Program

All inspectors performing erosion and sediment control inspections in the County go through the QCI training program to receive the QCI certification. Inspectors will also take the refresher course June 5th and 25th of 2014 to maintain their QCI certification. This allows staff to be made aware of any changes occurring in the state's program from year to year and also provides an opportunity to educate the County's inspectors on proper erosion and sediment control BMPs. The County will continue to invest the time and resources to ensure that inspectors receive the proper training to receive and annually renew their QCI certification during this permit cycle.

Erosion and Sediment Control Inspections and Enforcement Procedures

The County, in an effort to patrol the management of erosion and sediment control measures on active construction sites, will report observed violations of the NPDES permit regulations which it is made aware of. These observations will be designed to identify deficiencies in erosion and sediment control and suggest to the property owner corrective actions. Information on these observed violations will be reported to the County MS4 Manager for follow-up. Under the authority of Calhoun County, all Bridge and Road construction sites in the County are inspected after each ¾-inch, 24-hour rainfall event, or a minimum of once per month. Inspections are conducted using an Erosion Control Checklist that was developed by the County in 2014. Copies of all inspection reports and other documentation are maintained in an electronic format by the County's MS4 Manager's records.

Erosion and Sediment Control Plan Review Procedures and Permitting Process

There is no formal requirement for construction erosion and sediment plan review procedures or construction site permitting process, for developments in the County. The County recommends the

guidelines outlined in the latest version of the Alabama Handbook for Erosion Control, Sediment Control and Stormwater Management on Construction Sites and Urban Areas (Alabama Handbook).

The County has standardized on the use of the current revision of the Alabama Handbook for the design, construction and installation of proper erosion and sediment control best management practices on developments within the County. The Handbook is made available to interested parties on the County's Webpage (http://www.calhouncounty.org/highway/stormwater.html). In addition, the existing nuisance ordinance (Public Nuisances". Section 45-8-172.01 , Code of Alabama 1975, Public nuisances) is used where possible as the sole control measure to combat violations. There is no county enforcement measure available at this time. The County will rely on reporting violations to the ADEM for enforcement control.

Procedures for Notifying ADEM of Non-Compliant Sites

The County will notify ADEM, either by phone or email of any construction sites where a violation of the Clean Water Act has occurred. Possible violations could include, but are not limited to: releases of sediment to a Water of the State/U.S. and/or failure to adhere to the County's corrective action request following an inspection.

Procedures for Receipt of Information Submitted by the Public

The webpage provides a mechanism in which the general public can provide information regarding potential erosion and sediment control concerns. The general public can also report potential concerns by contacting the County's MS4 Manager at the following address: Mr. Brian Rosenbalm, 160 Seaton Drive, Anniston, Alabama Phone: (256) 237-4657, highway@calhouncounty.org. The County will respond to each concern in a timely and efficient manner, visiting the location of the complaint, contacting the applicant of the report

Responsible Contact: Brian Rosenbalm, Calhoun County

3.5 Post Construction Site Storm Water Management

The permit states that the permit holders are to develop, implement and enforce a program to address storm water runoff from new and re-development projects that fall under any imposed ordinances or that qualify for permitting under ADEM storm water runoff for qualifying sites.

The County uses the latest version of the Alabama Handbook as its guideline for controlling post-construction stormwater runoff from new development and redevelopment. The County will continue to use the Handbook as its control measure for post construction stormwater runoff. Potential benefits of effectively controlling post-construction stormwater runoff include: water

quality improvements, minimization of stream erosion and effective control of potential flooding impacts. Links to the Alabama Handbook are provided on the Webpage.

The primary target audiences within the County for our post-construction stormwater management program and the rationale for selecting these audiences are listed below:

Target: New Development and Re-Development Sites, Contractors and Developers.

- **Developers, Contractors and Homebuilders**
  - Responsible for development and construction activities that can potentially impact post-construction stormwater management. The primary pollutants contributed by this target audience, as it relates to post-construction stormwater management, are sediments and nutrients. In addition, development and construction activities can have potential flooding impacts.
- **Engineers**
  - Responsible for designing post-construction stormwater management plans to effectively manage post-construction stormwater from new developments and redevelopments.

The County's post-construction stormwater management program is primarily designed to address stormwater pollution from nutrients, sediments and pathogens. The strategy for the target audiences described above will vary depending on the type of audience and the potential risk and impact of pollutant contribution from post-construction stormwater runoff.

The management and implementation of the County's post-construction stormwater management program will be the responsibility of the County's Storm Water Resource Manager.

The success of the County's post-construction stormwater management program will primarily be gauged through water quality monitoring as well as visual observations of stream erosion along outfalls and flooding impacts. Specific components and measureable goals within our post-construction stormwater management program will consist of the following best management practices (BMPs):

The County will continue to use the latest version of the Alabama Handbook as its guideline for developers, engineers and contractors for structural and non-structural controls to manage storm water at all qualifying construction sites for the duration of use for the particular piece of property.

The County will encourage the target audience to maintain these particular controls in order to restore runoff to the original or better quality of runoff before construction began to minimize

volume and velocity of runoff to the highest extent practicable. Where applicable the County will utilize the State's Nuisance Ordinance to enforce the post construction control measures.

1. **Non-Structural BMPs**

Engineering Design and Construction Manuals

The County utilizes the latest edition of the Alabama Handbook that effectively addressed stormwater runoff controls required for sites greater than one acre. The Handbook identifies project requirements and specifications for new stormwater infrastructure and is available on the Website.

The County MS4 Manager utilizes the Handbook that includes engineering design criteria for sewer and water infrastructure, as well as stormwater BMPs for water quality protection such as rain gardens and stormwater wetlands.

The County will continue to use the Handbook as a guide for the design and construction of appropriate BMPs to effectively manage post-construction stormwater. The Alabama Handbook primarily affects a target audience of engineers, developers, contractors and homebuilders.

Conservation Subdivision Regulations

The County MS4 Manager has begun development of conservation subdivision guidelines to aid in the protection of local water resources. These guidelines will be available for use by mid-2014. The guidelines promote water resource protection through the setting aside of open space, concentrating development away from water resources and promoting low impact development concepts.

The County will continue to promote these conservation subdivision guidelines. These guidelines would primarily affect a target audience that includes engineers, developers, contractors and homebuilders. Included in stormwater guidance documents used by the county are the management practices and controls designed to achieve runoff control goals that have been set.

These controls shall include practices such as placement of drainage structures and establishment of permanent vegetation to assist in runoff management. Site approval and inspections processes will be addressed in BMP's and will be at intervals in line with minimum inspections as set forth through the ADEM's existing regulations and procedures. Tracking of all qualifying projects will be administered using the same GIS system used in the IDDE section control measure BMP. Annual review and evaluation of all sites will be conducted no later than one year after project completion.

For commercial construction located in the county, the Alabama Handbook is used as a guideline for construction ad post construction engineering practices. In addition, existing

nuisance ordinance (Public Nuisances". Section 45-8-172.01 , Code Of Alabama 1975, Public nuisances) is used where possible as the sole control measure to combat violations. There is no county enforcement measure available at this time. The County will rely on reporting violations to the ADEM.

2. Structural BMPs

a. Detention Pond Inspections

There are no detention ponds in the unincorporated areas of Calhoun County that fall under the authority of the County. However, there are a number of impoundments that the County maintains associated with the watersheds in the county. The County maintains the dams of the water bodies in its jurisdiction located in the two water sheds (Middle Coosa and Lower Coosa) in the county. The County clears the stack pipes and mows grass on the dams in the spring of each year. The County will begin to keep records of the maintenance carried out during the yearly inspections.

b. Design Guidelines for Structural BMPs

The County utilizes the most recent version of the Alabama Handbook as its guideline for the design, construction, installation and maintenance of stormwater BMPs. These guidelines primarily affect a target audience of engineers, developers and contractors.

c. Long-Term Maintenance of BMPs

Long-term maintenance of structural BMPs is a critical component to ensure that these BMPs continue to function as originally designed. The County will make recommendations to property owners concerning the long term maintenance of these structural BMPs.

The County will continue to make recommendations to developers, homeowner associations, and other groups to ensure the long-term maintenance of these structural BMPs is continued.

- ***Schedule***: The County will use the latest version of the Alabama Handbook as its guidelines addressing post construction management. Links to the Handbook are on the County's Website.

Responsible Contact: Brian Rosenbalm, Calhoun County

3.6 Pollution Prevention and Good Housekeeping for Municipal/County Operations

There is a need to continue to educate and train employees about spill prevention and storm water management and pollution prevention. This training includes, stormwater management, potential contaminant sources and best management practices as well as quick response techniques for spills

and accidents at all facilities. The County will hold staff training sessions on July 17th and October 9th, 2014.

The County has implemented a program intended to reduce stormwater pollution and promote good housekeeping measures in municipal operations during the permit cycle. The County will continue to revise this program during each permit cycle.

Potential benefits from an effective pollution prevention/good housekeeping program for municipal operations include: reduced stormwater pollution from municipal operations and increased employee awareness regarding the effect of their daily activities on stormwater management.

The primary target audiences within the County for our pollution prevention/good housekeeping program for municipal operations and the rationale for selecting these audiences are listed below:

Target: Municipal and County Employees

- **County Employees**
  - Responsible for daily municipal operations. County employees need to be trained and made aware of proper stormwater management and the role their daily activities could potentially have on stormwater management. Examples of impacts could include: how to properly dispose of waste, petroleum products, paints, chemicals and other potentially hazardous products.

The County's pollution prevention/good housekeeping program for municipal operations is primarily designed to address stormwater pollution from nutrients, sediments, pathogens and other various pollutants associated with county operations.

The County Highway Department will continue to provide workshops for staff on a range of topics that will train staff on the proper application of pesticides. The strategy for the target audience described above will focus on the potential risk and impact of pollutant contribution from their daily activities and the education of the target audience.

The management and implementation of Calhoun County's pollution prevention/good housekeeping program for county operations will be the responsibility of the County Engineering Department.

The success of Calhoun County's pollution prevention/good housekeeping program for municipal operations will primarily be gauged through the employee awareness and appropriate pollution prevention and good housekeeping measures for operations and maintenance of stormwater controls. Specific components and measureable goals within our pollution prevention/good

housekeeping program for municipal operations will consist of the following best management practice:

Stormwater Management Training BMP#1

The County Staff will attend, a variety of stormwater/water quality related conferences, workshops and seminars annually. This training is intended to provide the information and resources necessary for the County MS4 Manager and other county departments the information on the proper methods for implementing site control measures on all county projects. County personnel also attend training opportunities including ADEM conferences and workshops, regional conferences and national conferences when appropriate.

One specific example of in-house training provided by the County is the County's spill prevention, control and countermeasure (SPCC) training program. The County MS4 Manager reviews the SPCC Plan as part of scheduled meetings. The County will provide informal workshops that target the County employees who handle fuels and chemicals on a daily basis. These workshops will provide basic information on the proper management, handling and disposal of potentially hazardous chemicals. The County will continue to encourage stormwater management training for County. Where time allows, training will be included along with other training activities and programs.

Risk Management Manual

In 2014, the County will evaluate the development Risk Management Manual that contains specific requirements for dealing with hazardous chemicals. County personnel will continue to receive training on any hazardous chemicals that may be used during their daily activities. Material Safety Data Sheets (MSDS) identifying personal protective equipment, permissible exposure limits (PEL) and Threshold Limit Values (TLV) are required for all hazardous chemicals used. Once the manual is developed, the County will use this Risk Management Manual as a guide for municipal operations.

Certified Pesticide Applicators

The Highway Department maintains trained and certified personnel in the application of pesticides, including both restricted use and non-restricted use pesticides. County personnel attend various training events to maintain their certification. By obtaining certification, applicators become knowledgeable of the proper use and application of fertilizers and pesticides other chemicals typically used to maintain athletic fields, roadways and the best management practices that are intended to reduce the need for pesticides, fertilizers and water. The County will continue to maintain certified personnel in the application of pesticides.

Responsible Contact: Brian Rosenbalm, Calhoun County

Appendix

Example Survey:

Calhoun County MS4 Program Awareness Survey

The survey is intended to identify the target audience and its understanding of stormwater issues in Calhoun County.

Mark all that apply:

____ Resident

____ Business Owner

____ Contractor

____ Engineer

How would you finish this sentence?

Rinsing out a paint brush or washing your car on the street….

____ is okay, because the water flows into the storm sewer or ditch

____ is not a good idea. Because the water flows into the nearest creek of pond.

____ I have no idea.

Rate each of the following (from 1 - 5; where 1 is a serious problem and 5 is not considered a problem):

How much of a water quality problem for local streams and rivers do you feel each of the following pose?

____ Garden fertilizers running off yards?

____ Garden pesticides running off yards?

____ Pet waste?

____ Automobile maintenance items such as oil and anti-freeze?

Which of the following types of products have you or a contractor used during the past growing season for pest control?

____ Household products (soap-based sprays)

____ Weed Killer (Round-up)

____ Insecticides (Sevin)

____ Broadcast weed/fertilizer products(i.e. Weed and feed)

____ Biological agents (i.e. Lady bugs, Bt)

____ Did not use Pesticides

____ Products labeled for organic farmers

____ Don't have a yard

In the past year have you ever seen anyone living near you or in your neighborhood dumping items into a stream creek, open ditch or storm drain?

____ Yes, I have seen someone dumping items into storm drainage areas.

____ No, I have not seen someone dumping items into a storm drainage areas.

Which of the following would be the FIRST information source you would look to for information about water quality?

____ Newspaper

____ Utility Bill Insert

____ Public Library

____ Sierra Club/or Organization Mailing

____ County Web Page

____ Channel 24

____ EPA Web Page

____ Other (Please Specify)_____

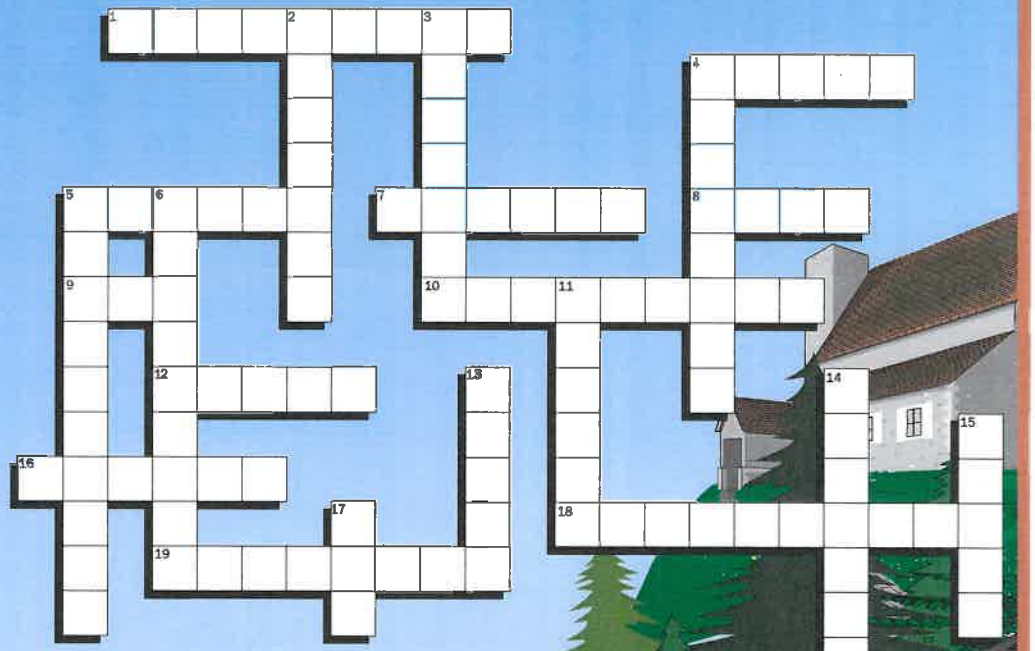
Take the Stormwater Runoff Challenge

Across:

1) The area of land that drains into an estuary, lake, stream, or groundwater is known as a _____.
4) The _____ of speeding boats can erode shorelines.
5) Maintaining your _____ tank will help to prevent bacteria and nutrients from leaking into groundwater and surface waters.
7) Wetland plants act like a natural water _____, removing harmful pollutants from stormwater runoff.
8) Leave your grass clippings on your _____ to reduce the need for commercial fertilizers.
9) A single quart of motor _____, if disposed of improperly, can pollute 2 million gallons of water.
10) Fertilizers and animal wastes contain _____ that "feed" algae and other aquatic plants harmful to water quality.
12) Polluted runoff from both rural and _____ sources has a significant impact on water quality.
16) Storm _____ don't always connect to sewage treatment plants, so runoff can flow directly to rivers, lakes, and coastal waters.
18) Follow directions carefully when applying _____ on your lawn—more isn't always better.
19) Polluted runoff (also called_____ source pollution) comes from so many places that it's hard to "pinpoint" a source.
20) Yard and vegetable food waste are suitable additions to a _____ pile.

Down:

2) Don't dump used motor oil into storm drains. _____ it!
3) _____ of soil from barren land can cloud nearby streams.
4) _____ prevent flooding, improve water quality, and provide habitat for waterfowl, fish, and wildlife.
5) Marking "Do Not Dump, Drains to Bay" on a _____ is one way to educate people about polluted runoff.
6) Excess sediment, nutrients, toxics, and pathogens are all types of runoff _____.
11) Polluted _____ is the nation's #1 water quality problem.
13) The cattail is one wetland _____ that helps purify polluted runoff.
14) Too much _____ in water can harm aquatic life.
15) Proper crop and animal management on _____ helps to control water pollution.
17) _____ impact development helps control stormwater pollution through conservation approaches and techniques.



Choices:

compost	nonpoint	sediment
drains	nutrients	septic
erosion	oil	storm drain
farms	plant	urban
fertilizer	pollution	wakes
filter	recycle	watershed
lawn	runoff	wetlands
Low		

EPA United States Environmental Protection Agency

For more information, please visit EPA's Polluted Runoff web site at www.epa.gov/nps

Printed with soy based inks on recycled paper

Illicit Discharge Hotline Incident Tracking Sheet

Incident ID:

Responder Information	
Call taken by:	Call date:
Call time:	Precipitation (inches) in past 24-48 hrs:
Reporter Information	
Incident time:	Incident date:
Caller contact information (*optional*):	

Incident Location *(complete one or more below)*

Latitude and longitude:

Stream address or outfall #:

Closest street address:

Nearby landmark:

Primary Location Description	**Secondary Location Description:**		
☐ Stream corridor *(In or adjacent to stream)*	☐ Outfall	☐ In-stream flow	☐ Along banks
☐ Upland area *(Land not adjacent to stream)*	☐ Near storm drain	☐ Near other water source (storm water pond, wetland, etc.):	

Narrative description of location:

Upland Problem Indicator Description

☐ Dumping	☐ Oil/solvents/chemicals	☐ Sewage
☐ Wash water, suds, etc.	☐ Other: _____	

Stream Corridor Problem Indicator Description

Odor	☐ None	☐ Sewage	☐ Rancid/Sour	☐ Petroleum (gas)
	☐ Sulfide (rotten eggs); natural gas	☐ Other: Describe in "Narrative" section		
Appearance	☐ "Normal"	☐ Oil sheen	☐ Cloudy	☐ Suds
	☐ Other: Describe in "Narrative" section			
Floatables	☐ None:	☐ Sewage (toilet paper, etc)	☐ Algae	☐ Dead fish
	☐ Other: Describe in "Narrative" section			

Narrative description of problem indicators:

Suspected Violator (name, personal or vehicle description, license plate #, etc.):

Investigation Notes	
Initial investigation date:	Investigators:
☐ No investigation made	Reason:
☐ Referred to different department/agency:	Department/Agency:
☐ Investigated: No action necessary	
☐ Investigated: Requires action	Description of actions:
Hours between call and investigation:	Hours to close incident:
Date case closed:	
Notes:	

Clean Water

Everybody's Business

10 Things You Can Do to Prevent Stormwater Runoff Pollution

- Use fertilizers sparingly and sweep up driveways, sidewalks, and gutters
- Never dump anything down storm drains or in streams
- Vegetate bare spots in your yard
- Compost your yard waste
- Use least toxic pesticides, follow labels, and learn how to prevent pest problems
- Direct downspouts away from paved surfaces; consider a rain garden to capture runoff
- Take your car to the car wash instead of washing it in the driveway
- Check your car for leaks and recycle your motor oil
- Pick up after your pet
- Have your septic tank pumped and system inspected regularly

EPA United States Environmental Protection Agency

For more information, visit
www.epa.gov/nps or
www.epa.gov/npdes/stormwater

ALABAMA COOPERATIVE Extension SYSTEM
Alabama A&M and Auburn Universities

UNP-101

ALABAMA A&M AND AUBURN UNIVERSITIES

Elements of Surprise: Don't Get Caught Off Guard by E-Waste Contaminants

Introduction

When you replace your electronic devices have you ever wondered what happens to unused or discarded items? Essentially, they exist as electronic waste (e-waste). By definition, e-waste is electronic products used for data processing, telecommunications, or entertainment in households and businesses that are outdated, broken, or cannot be fixed. Materials used in these products are often toxic because they are made with harmful chemicals such as mercury, lead, cadmium, brominated flame retardants, and hexavalent chromium. If misused or mishandled, these chemicals can create serious health hazards. Learning about these hazardous substances and how they contaminate our environment and food and water supplies will help prepare you to recycle or to properly dispose of these products.

E-waste Contaminants

Here are a few of the most common e-waste contaminants.

Mercury

Mercury is a natural metallic element found in rocks and the earth's crust that can be harmful and toxic if improperly handled. A unique element, it is a liquid at normal temperatures and forms an odorless gas when heated. Airborne mercury, in its gaseous state, eventually settles on land or into water where microorganisms convert it to methyl mercury. Methyl mercury is toxic and builds up in fish and in animals that eat fish.

While mercury exists as an element or combines with other elements to form organic and inorganic compounds, exposure to inorganic mercury compounds is limited due to current product bans. Health problems that occur as a result of mercury exposure depend on the length and frequency of exposure and individual body responses. Mercury is particularly harmful to fetuses and young children. Young and nursing mothers should be particularly cautious. Adverse effects include nausea, coughing, abdominal and chest pains, vomiting, and diarrhea. Continued exposure through inhalation or skin permeation can result in disturbances to the nervous system, tremors, impaired thinking or reasoning, sleep disturbances, irritability, depression, and even kidney damage.

Although measures have been taken in recent years to control mercury use in the United States, further precautions are necessary to ensure compliance with current regulations,

to prevent improper disposal of mercury, and to protect against mercury spills and against products, such as some pesticides, that still contain mercury.

The United States Environmental Protection Agency (EPA) regulates the use and disposal of mercury in this country. Citizens can help eliminate this harmful substance by not buying and properly disposing of products that contain mercury.

Common uses for mercury and potential contaminants include fuel indicators, non-digital thermostats, barometers, thermometers, sensors in video cameras, laptop shutoffs, fluorescent lamps, some cosmetics and antiseptic creams, dental fillings, lawn chemicals, automobile high-intensity discharge headlights and hood lights, appliances and motor switches, iron and washer shutoff switches, batteries (largely phased out in 1996 with the Rechargeable Battery Management Act), paper manufacturing, and old exterior paints.

In case of a spill, never dispose of mercury as regular domestic waste or place it down the drain. You risk ground water contamination. Seek information from health and safety advisors such as the EPA, the Alabama Department of Public Health, or the Alabama Department of Environmental Management at (334) 271-7730.

Lead

Lead is a naturally occurring metal in ore deposits and a common water contaminant. An abundant toxic by-product of e-waste, lead is found in glass panels on computer monitors and cell phone displays and it is used in electronic solders and as a sheathing material for power cables. Toxic levels exceeding standards set by the EPA can be hazardous to human health. Unsafe levels of exposure can be acquired through lead based paints, gasoline, contaminated drinking water, metal plumbing, soldering, lead mining, and smelting operations.

The misuse of lead has been associated with global health issues. In 1974, the Safe Drinking Water Act was established to define requirements for safe levels of lead and other chemicals in drinking water that must be adhered to by all public water suppliers.

High-level exposure or cumulative effects of lead exposure have tremendous adverse effects. Lead is the leading cause of environmental health threats to children. The effects of short-term exposure to lead at levels above standards include interference with the chemistry of red blood cells, learning and attention deficits in children, physical and mental health impairment in children, and increased blood pressure in adults. Long-term exposure to lead at unsafe levels can cause a stroke, kidney disease, and cancer.

Household lead waste should be disposed of according to local solid waste regulations. Contact your local solid waste utility or local government for more information.

Cadmium

Cadmium is a chemical element known to cause cancer. The soft metal has a bluish white appearance and emits a brownish, nonirritating fume when burned. It is a by-product of zinc, copper, and lead ores. The element and solutions of its compounds are toxic even in low concentrations. Continuous exposure at low levels can build to increased toxic levels over time.

Cadmium is released into the environment in large amounts. About half of the source is from the weathering of rocks; the remaining percentages come from human activities

such as production processes. Cadmium compounds are used in batteries, artificial phosphate fertilizers, plastic stabilizers, plating for metal parts, manufacturing paints and pigments, black and white television phosphors, and in blue and green phosphors for color television tubes.

Cadmium pollutions in soil and water are extremely dangerous due to the increased potential for absorption by plants and aquatic life. People can be exposed to cadmium when they eat contaminated plants or drink contaminated water. Human intake can occur through eating certain foods, by breathing in cadmium from hazardous waste sites or factories, and by smoking cigarettes.

Breathing in cadmium can severely damage the lungs and the kidneys. Other adverse health effects include cancer, stomach disorders, bone fractures, damage or interference with the nervous, immune and reproductive health systems, and changes in human deoxyribonucleic acid, better known as DNA.

For information on how to properly dispose of cadmium contact your local public health department, the Poison Help hotline at (800) 222-1222, or the Agency for Toxic Substances and Disease Registry at (888) 422-7837 or ATSDR@cdc.gov.

Bromine

Bromine is a nonmetallic element that exists as a brownish red liquid at room temperature. It exists naturally in the earth's crust and in seawater. The element has a strong bleaching effect and should be handled with caution to avoid serious health hazards. Bromine is an irritant to eyes, throat, skin, mucus membranes, and the respiratory system. Direct contact with the skin causes sores and exposure to concentrated bromine vapors can be fatal.

Bromine is used in making medicines, sanitizers, and dyes. It is also used in pool maintenance, in gauges, in photographic film, and as a water purification compound. Its use in brominated flame retardants and flameproofing agents is increasing.

For more information about bromine contact your local poison center or the Centers for Disease Control and Prevention's public information line at (800) CDC-INFO/ 232-4636. In Alabama, contact the Alabama Poison Center at 1-800-462-0800.

Chromium

Chromium is a chemical element, steel gray in color with a high polish and high melting point. Hexavalent chromium compounds are chemical substances that contain the element chromium. The compounds may be found in dyes, paints, primers, inks, spray paints and coatings, cements, plastics, and welding metals.

Hexavalent chromium is the substance that Erin Brockovich, the famous environmental consumer advocate, campaigned against in California. Breathing high levels of or coming into direct contract with this chemical can irritate the nose, throat, lungs, skin, and eyes. Industry workers that breathe the compounds over many years can be at risk of developing lung cancer.

For more information contact the Occupational Safety and Health Administration at (800)-321-OSHA/6742.

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