

2014-2015 Annual Report



City of Opelika
Phase II NPDES MS4 Permit Number ALR040018
Post Office Box 390
Opelika, Alabama 36803

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1.0 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. Based 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.

The Honorable Gary Fuller
Mayor, City of Opelika

Signature

Date

Mr. Scott Parker, P.E.
City Engineer, City of Opelika

Signature

Date



2.0 General 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. The Alabama Department of Environmental Management (ADEM) administers the storm water program for the State of Alabama. 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” 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.

This annual report covers the reporting period from April 2014 through March of 2015.

2.1 Site Description

The City of Opelika is located in East Central Alabama. A map of the City is provided in Appendix A of this report. Opelika’s incorporated area occupies approximation 59 square miles and is adjacent to the City of Auburn and unincorporated areas of Lee County. The current population, according to the 2010 census, is 26,477.

2.2 Water Quality Concerns

According to ADEM’s May 2012, §303 (d) list, there is one stream within the City that has been designated as impaired. Table 2.2.1 below lists the impairments for Moore’s Mill Creek.

Table 2.2.1: Mill Creek Impairments

Waterbody	Use Classification	Pollutant	Source
Moore’s Mill Creek	Swimming/Fish & Wildlife	Siltation (habitat alteration)	Land Development Urban runoff/storm sewers

Pepperell Branch was first placed on the State’s §303 (d) list for pathogens in 2010 for not meeting designated uses under technology-based pollution controls. The State has since developed (2) total maximum daily loads (TMDLs) for Pepperell Branch. Table 2.2.2 below lists the impairments for Pepperell Branch.



Table 2.2.2: Pepperell Branch Impairments

Waterbody	Use Classification	Pollutant	Source
Pepperell Branch	Fish & Wildlife	Pathogens (E. Coli)	Urban runoff/storm sewers
Pepperell Branch	Fish & Wildlife	Nutrients and Organic Enrichments/Dissolved Oxygen	Industrial Activity

The City has committed to the improvement of these impaired streams by actively conducting and supporting water quality testing at locations identified by Alabama Water Watch (AWW). Details of this testing is described in detail in the following report.



3.0 Contact List

Storm water is managed by several City Departments with daily task and inspections, and by community activities, which involve volunteer work. The City does not have the financial resources to dedicate personnel solely to storm water, water quality, but these responsibilities are shared by employees and considered part of the efforts. The following individuals may be contacted to address questions or concerns regarding the City of Opelika's MS4 program:

Scott Parker, P.E.
City Engineer, City of Opelika
700 Fox Trail
P. O. Box 390
Opelika, Alabama 36801
(334) 705-5450
sparker@ci.opelika.al.us

John Gwin
Assistant City Engineer, City of Opelika
700 Fox Trail
P. O. Box 390
Opelika, Alabama 36801
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4.0 Program Evaluation

4.1 Program Objective

The City of Opelika is dedicated to advancing the past achievements of the requirements of their NPDES Permit, ALR040018. The requirements of this permit, as well as the City's Storm Water Management Plan (SWMP) that was submitted and approved in 2012, is intended to improve water quality by reducing pollutants in receiving waters. The City's goal to achieve this progress is planned to be aided by the continuing education of the municipal employees and the general public on the storm water management program, and focus on a unified approach to the identification and correction of problem areas that diminish storm water quality. With the involvement and education of citizens and employees that have a passion for improving the City's storm water quality, comes the quantitative effort to change. It is the City of Opelika's goal to harness this energy to improve the quality of the environment with improved developmental practices, residential awareness and behavior, infrastructure improvements that arise from detection of problems.

The City of Opelika was incorporated in 1854. As an incorporated city, Opelika has the legal authority to create land use and design regulations for developments within the City's corporate limits.

5.0 Storm Water Management Program Components

The Phase II storm water permit regulations require that operators of a "small" municipal separate storm sewer systems (MS4s) in urbanized areas to develop and implement storm water programs employing best management practices (BMPs) to adequately address six minimum control measures. These control measures are:

- A. Public Education and Outreach on Storm Water Impacts
- B. Public Involvement/Participation
- C. Illicit Discharge Detection and Elimination
- D. Construction Site Storm Water Runoff Control
- E. Post-Construction Storm Water Management in New and Redevelopments
- F. Pollution Prevention and Good Housekeeping for Municipal Operations

The following report will demonstrate activities the City of Opelika has achieved during the 2014-2015 permit year to satisfy the requirements of their Phase II MS4 permit.



A. Public Education and Outreach on Storm Water Impacts

1. ALOAS Brochures

Various informational and educational brochures have been printed and distributed regarding the City’s Water Quality programs and policies. The brochures were co-developed with the City of Auburn, the Lee County Commission, Auburn University, and the City of Smiths Station. Copies of the brochures are available at City Hall, the Public Works Facility, the City Library, and the City’s website. A copy of each brochure is attached in Appendix A, and topics are listed below.

- Local Water Resources
- Our Local Watersheds
- Saughatchee Creek Watershed
- Moore’s Mill Creek Watershed
- Mill Creek Watershed
- Parkerson Mill Creek Watershed
- Halawakee Creek Watershed
- Low Impact Development
- Materials Management on Construction Sites
- Rain Gardens
- Lawn Care and Smart Yards
- Emerging Contaminants (New)
- Erosion and Sediment Control Policy
- Alternate Storm Water Treatment Technologies
- Erosion and Sediment Control Policy for the Small Scale Builder
- Illicit Discharges
- Sanitary or Storm Sewers?
- Stream Buffer
- Storm Water Related Websites
- Wetlands
- Stream Gages
- Low Impact Development Handbook



Figure 1: Typical ALOAS Brochure

2. Storm Water Management Resources Page

The City of Opelika has developed a page within the City’s website to provide information for citizens on the City’s MS4 permit requirements. This website provides citizens with access to the City’s previous MS4 annual reports along with the City’s Storm Water Management Program (SWMP) Plan. The City hopes that the information provided by this site helps citizens understand their responsibility to assist the City with the requirements. A screenshot of the City’s new webpage is located in Appendix A.



Figure 2: City Resource Page



3. Lee County Water Festival

The City provided financial, leadership, and volunteer support for the tenth and eleventh Annual Lee County Water Festival that happened within this reporting year on May 9th, 2014 and March 19th and 20th 2015. Because there was a leadership transition with the Festival organizers, there was a drop in the attendance on the 2014 Water Festival and most of the Opelika City Schools were not able to participate, but all of Opelika's fourth graders were able to attend in 2015. In each year, there were approximately 800 to 1200 fourth-grade students and teachers from three school systems (City of Opelika, City of Auburn, and Lee County) who attended this free event at Auburn University.

The mission of the Water Festival is to educate students and their families about all the aspects of surface water, groundwater and their related natural resources, such as wetlands, forestry and wildlife. Attendees gained a greater knowledge and awareness of the importance of all water resources and the need to become good environmental stewards of those resources. In addition to the City of Opelika participating and volunteering for this event, and have been active on the Leadership Committee, participating in organizational meetings and coordinating attendance with the City of Opelika Schools to ensure maximum attendance at the 2015 Lee County Water Festival. The event was also sponsored by the Lee County Soil and Water Conservation District. Sign in sheets for the Organizational Leadership meetings are located in Appendix A of this report and the press release for the Lee County Water Festival is located in Appendix B of this report.

4. Stream Crossing Identification Signs

The City of Opelika Public Works Department partnered with Opelika Middle School (OMS) and the Saughatchee Watershed Management Plan (SWMP) to install more than 30 signs at stream crossing points in Opelika since 2009. Signs were placed beside the roadway at each bridge or culvert. The signs identify the name of the stream at the crossing point and its major downstream tributary. OMS students have assisted in the maintenance of Rocky Creek during the past five years by planting vegetation along its banks and monitoring its water quality. Pictures of some of the stream crossing signs are located in Appendix A of this report.



Figure 3: Stream Crossing Sign



6. Opelika On Track Magazine

The City publishes a magazine twice a year that is mailed out to Opelika residents and businesses. This magazine outlines events in the City and informs citizens of the City Council’s work sessions and scheduled meetings for citizens to voice concerns to the City. Opelika On Track also highlights the trash and garbage that the Solid Waste Department collects, along with important City contact information for citizens.



Figure 4: Opelika On Track Magazine

B. Public Involvement/Participation

1. Citizens Advisory Committee

The City of Opelika is an active member of the City of Auburn, Lee County, City of Opelika, Auburn University, and City of Smiths Station (ALOAS) Citizen Advisory Committee. This committee meets once a quarter to discuss issues related to water quality in Lee County’s waterbodies. The committee also helps to develop two (2) new storm water impact related brochures every year for the Lee County area. Copies of these brochures are located in Appendix A and ALOAS sign-in sheets are located in Appendix B of this report.

2. Save Our Saughatchee (S. O. S.)

The City of Opelika has participated in the watershed management and preservation activities of Save Our Saughatchee (S.O.S.). S.O.S. is affiliated with Alabama Water Watch, and its members periodically collect E. Coli samples from designated stream locations to identify potential problem areas. This group also holds periodic clean-ups and quarterly meetings. This year the City of Opelika had the privilege of presenting at one of the bi-monthly S.O.S meetings. The presentation consisted of an update of Opelika’s improving storm water management and stream testing and awareness. The title slide and introduction of this presentation is located in Appendix B of this report.

The City of Opelika was also pleased to become a financial sponsor of the S.O.S. program by donating \$350 to the organization for water testing supplies and materials as well as committing support and testing throughout the year in the streams within the Opelika City Limits. A press release for this support and donation is located in Appendix B of this report.



3. Keep Opelika Beautiful

Keep Opelika Beautiful (KOB) is a non-profit organization located in Opelika, Alabama and is affiliated with Keep America Beautiful. Ms. Tipi Miller is the energetic director of KOB and their goal is to educate the City of Opelika's citizens about the importance of a clean and beautiful environment. The main focus areas of KOB are litter prevention, recycling, and beautification. KOB's website, www.keepopelikabeautiful.com offers more information about upcoming activities and ways to get involved. Events include the following and details of these events are elaborated on later in this report:

- Citywide Cleanup
- Garden in the Park
- Electronics Recycling
- Adopt-A-Mile Program
- Beautification Committee
- Clean Campus Program



Figure 5: KOB Homepage

4. Recycling Drop-Off Program

The City of Opelika manages a voluntary recycling program. Five convenient drop-off sites are available throughout Opelika where citizens can bring their recyclable materials:

- Denson Drive Recreation Center – 1102 Denson Drive
- Covington Recreation Center – 213 Carver Avenue
- Westside Wastewater Treatment Plant – 1017 Grand National Parkway
- Floral Park – 600 Floral Park
- Parkway Shopping Center – 1515 Second Avenue

Accepted recyclable materials include newspapers, aluminum cans, steel and tin cans, plastic containers, and corrugated cardboard. A corrugated cardboard collection trailer is also located in the Avenue A parking lot between 8th and 9th Streets.

The City of Opelika Solid Waste Department increased the amount of recycled material from last year from 296.1 tons to 462.75 tons of recycled materials to collection vendors during the 2014 fiscal year. This increase in recycled materials is due to the intensified efforts of Opelika's Solid Waste Department



under the leadership of Mr. Terry White. Mr. White brings experience in the waste management and recycling industry and is planning on increasing the efforts of improving these needs of the City in the future. The quantities of specific materials collected are listed in Table 5.1 below.

Table 5.1: Recycled Materials (2014)

Media Collected	Amount Collected (Tons)
Plastics	30.46
Glass	89.86
Paper (includes Newspaper and Phonebooks)	124.19
Aluminum	3.83
Steel	16.46
Cardboard	197.95

5. Pet Waste Disposal

During this current reporting year, The City of Opelika provides six (6) new pet waste receptacles in the downtown area and at local parks and walking trails for the proper collection of pet waste that area services on an as needed basis. The downtown area’s residential development continues to grow and with this growth of residents there is an increase in pet concentration. These pet receptacles provide these residents incentive to properly dispose of the waste to prevent it from getting into and polluting the City’s storm water system.



Figure 6: Pet Waste Disposal Station

6. Electronics Recycling

The City of Opelika co-sponsored, along with KOB, Auburn University, the City of Auburn, and Lee County, an electronics, appliance, and document shredding recycling event on September 13, 2014 and March 14, 2015. A drop-off site was established for citizens to bring their electronics and appliances. Volunteers manned the drop-off site and assisted citizens with the handling of the recycled goods. The event this March produced more recycled materials than any other event held by the co-sponsored agencies. Pictures from the event are located in Appendix B of this report.

7. Arbor Day

The Opelika Tree Commission and KOB co-sponsored the annual Arbor Day celebration on February 28, 2015 at the new Community Gardens off Glenn Avenue. Attendees of all ages learned about the storm water benefits of trees and proper tree planting techniques. A variety of tree saplings were given away



at the event, and a local group of 4th graders at Northside Elementary school was present to showcase their new club, Envirachange <http://envirachange.weebly.com/>. A copy of the press release is located in Appendix A of this report, along with pictures from the event in Appendix B.

8. Litter Survey

KOB conducts an annual litter survey to provide an objective means of measuring the amount of litter on City streets, parks, schools, commercial and industrial sites, and residential neighborhoods. Ten random sites are inspected each year in all four quadrants of the City. Each site is evaluated by four scorers using a numerical scale between 1.0 and 4.0, with 1.0 being a site with little to no litter and 4.0 being a site needing an organized cleanup effort. Scores from all four evaluators are recorded, averaged, and then compared with quadrant scores from previous years. A copy of 2014's litter survey is located in Appendix B of this report.

9. Clean Campus Program

KOB conducts an annual contest among Opelika City Schools to encourage litter collection and cleanliness on all school campuses. KOB board members rate each of the participating school campuses for overall appearance, amounts of uncollected litter on the school grounds, and neatness and cleanliness in halls, classrooms, lunchrooms, and restrooms. KOB has a liaison teacher in each school that coordinates environmental lessons and a hands-on project for their schools. Some examples include a hummingbird habitat, vegetable garden, and litter pickup. KOB meets with the liaison teacher and/or principal quarterly to assess the program.

10. Citywide Cleanup

Approximately 100 volunteers participated in KOB annual Citywide Cleanup on March 7, 2015. Concerned citizens, as well as school groups, church groups, and civic clubs organized their efforts to remove litter and trash from public streets, parks, streams, and vacant lots throughout Opelika. The collected litter and trash was placed into refuse trailers provided by the City of Opelika Solid Waste Department. A local news article that was printed about the details of this event is included in Appendix B of this report.



Figure 7: Students painting azaleas at Cleanup

11. Adopt-a-Mile Program

Nine organizations currently participate in the City of Opelika's Adopt-a-Mile Program, which is sponsored by KOB. Each organization has been assigned a one-mile road segment in Opelika and is responsible for



maintaining that segment in a litter-free condition. The City of Opelika and the Alabama Department of Transportation (ALDOT) have placed signs at the ends of each assigned road segment to identify the organizations responsible for maintaining their respective segments. The organizations currently participating are:

- Opelika Rotary Club
- Opelika Kiwanis Club
- Opelika Lions Club
- Opelika Exchange Club
- Auburn-Opelika Elks Club
- Opelika High School Future Farmers of America (FFA)
- Opelika Fire Department
- Wal-Mart Distribution Center
- AFNI
- Grace Falls Church
- His Place
- Exquisite Social Club

12. Citizen Complaints

A citizen has several different ways to report a problem or concern noticed within the City including but not limited to the following:

- Contact a City Department in person or by phone
- Submit a service request through the City's Action Center
- Submit an iReport through the City's mobile application

Section 5.2.2 of the City's SWMP Plan provides a description of the City's web based complaint reporting system (Online 311 System). Due to the high volume of emergency related requests, the City has changed the name of this reporting system to "Action Center". The Action Center can be accessed from the main page of the City's website (www.opelika.org). Once a citizen creates a profile in the Action Center, the citizen can create and submit a service request. When a service request is received from a citizen, the service request is reviewed and forwarded to the appropriate City Department. The citizen can return back to the Action Center to check on status of the service request. Once the service request has been addressed, the citizen receives an e-mail that the service request has been closed and a brief summary of what action was taken. A latest example of the 311 citizen complaint reporting and administration response can be found in Appendix B of this report.

The City has also developed an application for iPhone and Android devices that was detailed in previous years report. The application was developed to provide another means of convenient communication with the public. This application provides information about the City, News, Calendar of Events, Alerts, iReport, Secret Witness Hotline, Photos and Contact us Section. The iReport feature allows a citizen to report a problem or concern using their smartphone. A summary of the application's capabilities were included in the Summer / Fall 2012 issue of Opelika On Track.



13. Community Gardens

The latest project of KOB is partnering with Opelika City Schools, Community Market of the Food Bank of East Alabama and Auburn University to create Opelika Grows. This includes creating and assisting in the maintenance of gardens at several Opelika schools. KOB has also created a community garden for residents to lease plots. This program teaches citizens how to plant a garden and help use storm water in a productive way.



Figure 8: Community Garden



C. Illicit Discharge Detection and Elimination

1. Illicit Discharge Ordinance

On September 21, 2011, the City of Opelika adopted an Illicit Discharge Ordinance. The purpose of this ordinance is to provide for the health, safety, and general welfare of the citizens of Opelika, Alabama, through the regulation of non-storm water discharges to the storm drainage system to the maximum extent practicable as required by federal and state law. This article establishes methods for controlling the introduction of pollutants into the municipal separate storm sewer system (MS4) in order to comply with requirements of the National Pollutant Discharge Elimination System (NPDES) permit process. The objectives of this article are:

- (1) To regulate the contribution of pollutants to the MS4 by storm water discharges by any user.
- (2) To prohibit illicit connections and discharges to the MS4.
- (3) To establish legal authority to carry out all inspection, surveillance, monitoring, and enforcement procedures necessary to ensure compliance with this article.

A copy of the ordinance is located in the City's Storm Water Management Plan as well as on record at the Engineering Department and can be electronically transmitted if requested.

2. Storm Sewer System Map

The Engineering Department is continually developing and refining the city-wide storm sewer system map. The map delineates drainage basin boundaries and indicates drainage structures and bodies of water. The map was completed and submitted to ADEM prior to December 8, 2006 and is being updated and revised according to developments and changes to the system. Copies of the maps provided for the City's notice of violation (NOV) response and are also on record at the Engineering Department and can be electronically transmitted if requested.

3. Illicit Discharge Dry Weather Screening and Monitoring Plan

The City has committed to screening all outfalls located within the City's MS4 area by March of 2017. To facilitate the screening process the City is continually implementing an Energov Document Management System Citywide that will automate and record all inspections and reviews. It is anticipated that this inspection procedure will streamline the screening and analysis of the outfalls within the City to determine the function and effectiveness of the outfall as well as any detection of an illicit discharge coming from the system. This will be incorporated to accelerate the current monitoring plan so the City will achieve its goal of having all the outfalls screened by March of 2017.

4. Geographical Information System (GIS)

The Engineering and Information Technology Departments are still in the process of developing an electronic version of the storm sewer system map. A consultant was originally hired in 2009 to begin the



process of creating a Geographical Information System (GIS) and to collect field data for the system. The consultant has completed the basic mapping and data collection of the storm drain structures. Culverts, inlets, and discharge points are located with Global Positioning System (GPS) hardware, inventoried, and photographed. The consultant estimates that they collected data on approximately 5,900 storm water features. These points are then inserted as a layer on the City's GIS map. The City is now coordinating with Auburn University to have students perform more detailed testing and measurements to the storm sewer system within the City. With this advanced and more detailed information, the City will be able to more accurately detect, design and predict storm water and flooding issues in its system.

The City's GIS inventory currently contains a total of 12,243 storm water structures (inlets, junction boxes, headwalls, and outfalls) and 144.08 miles of storm water culverts. The GIS inventory also contains a total of 6,109 sanitary sewer manholes and 282.26 miles of sanitary sewer mains (gravity and force). Maps and images of the City's GIS data that illustrates this infrastructure is available upon request, but it is not informative enough to include as an illustration in the scale of this report.

5. Grease Management for Food Service Establishments

On February 21, 2012, the Opelika City Council adopted an ordinance to aid in the prevention of sanitary sewer blockages and obstructions from contributions and accumulations of fats, oils, and greases into the sanitary sewer system from industrial and/or commercial establishments, particularly food preparation and service facilities. The ordinance creates a permitting process for food service establishments that generate grease waste into the sanitary sewer system, establishes requirements for the installation and maintenance of grease traps and interceptors, and defines penalties for those establishments who are not in compliance. A copy of the ordinance is located in the City's Storm Water Management Plan as well as on record at the Engineering Department and can be electronically transmitted if requested.



D. Construction Site Storm Water Runoff Control

1. Erosion and Sediment Control Ordinance

The City of Opelika enacted a City-wide Erosion and Sediment Control ordinance in June, 2002. The ordinance addresses permitting, plan review and approval, inspections, and enforcement, and is applicable to all construction sites. All construction plans for public works improvements, utility installations/relocations, commercial sites, industrial sites, multi-family residential sites, and institutional sites must include a phased best management practices (BMP) plan that is submitted to the Engineering Department for review and approval prior to the issuance of a building permit or notice to proceed. A copy of the ordinance is located in the City's Storm Water Management Plan as well as on record at the Engineering Department and can be electronically transmitted if requested.

2. QCP / QCI Personnel

City Engineer Scott Parker, P.E., serves as the City of Opelika's Qualified Credentialed Professional (QCP). David Chapman, Brady Pollock, and Jeff Kappelman are certified as a Qualified Credentialed Inspectors (QCIs) by the State of Alabama. Copies of Mr. Parker's Professional Engineering license and Mr.'s Pollock, Chapman, and Kappelman's current QCI certification numbers are located in Appendix D of this report.

3. Best Management Practices (BMP) Review and Approval

The City of Opelika requires the submission of a Best Management Practices (BMP) plan by a registered professional for review and approval prior to the issuance of a building permit or ground disturbance permit. The Engineering Department reviews each plan for compliance with the City's Erosion and Sediment Control Regulations and the 'Alabama Handbook for Erosion Control, Sediment Control and Storm Water Management on Construction Sites and Urban Areas'.

As part of this BMP review and approval process, the City of Opelika Engineer and Public Works Departments created a Land Disturbance Permit – Site Plan Review and Notice to Proceed form that documents the review and approval process for all the commercial site development projects. This form was developed in conjunction with the Post Construction Storm Water Ordinance detailed in Section E of this report. The City of Opelika Engineering and Public Works Department reviewed and approved BMP plans for 15 commercial projects in 2014 and issued Land Disturbance Permits for them. These projects are listed below and copies of the permits are located in Appendix D of this report:

- Trinity Presbyterian Church
- West Fraser Kiln Expansion
- Dollar General on North Uniroyal Road
- Opelika First Baptist addition
- Eagle Convince Store in Capps Landing



- Chili's in Capps Landing
- Tiger Town Retail
- Full Mood BBQ in Tiger Town
- Bojangles on Pepperell Parkway
- MOB Shell Building at EAMC
- Stone Martin Construction lot 1125 Preston Street
- EAMC Health plus Parking Lot
- Northbrook Phase IV Subdivision
- The Paces at the Estates II Apartments
- J Smith Lanier Office on Corporate Park Drive
- National Village Subdivision Section 1C
- Wyndham Gates Phase II Subdivision
- Streeter Subdivision

4. Permitting

The City of Opelika Building Inspection Department issued approximately 1,159 building permits for a total construction cost of \$79,409,560 during the 2014 calendar year. A total of 3,591 code inspections have been performed by department personnel so far this fiscal year. During these inspections one enforcement action was taken for a construction site. A copy of the Building Inspection Department's annual report and a copy of the enforcement letter are located in Appendix D of this report.

5. Enforcement

The City of Opelika Engineering and Building Inspection Department often combine forces to inspect and monitor the construction, development, and home sites of the permits that were issued listed above and on the Building Inspections Department work permit. When the situation of an erosion sediment control violation occurs, the techniques set aside in the ordinances accepted by the City are utilized. Enforcement actions usually begin with a phone call to the contractor in anticipation for a cooperative and positive response to remedy the situation. If there is not a positive response an email to the violator requesting rectification, and ultimately a certified mailing to the developer is utilized to document receipt and ensure compliance. Certified mail, email, and regular mail are examples of the enforcements used during the past reporting year and are included in Appendix D of this report.



E. Post-Construction Storm Water Management in New Development and Redevelopment

1. Post Construction Storm Water Ordinance

The City of Opelika recently created an ordinance to allow them to enforce post construction erosion and sediment control measures outlined within the City's Phase II MS4 permit. This ordinance will provide the City with a mechanism to ensure adequate long-term operation and maintenance of post construction storm water management BMPs.

The City of Opelika is actively encouraging developers and residences of Opelika, through education, to implement Low Impact Development (LID) practices that were published in a handbook by ADEM and the Alabama Cooperative Extension System at Auburn University. The City of Opelika believes that LID products and procedures are a better post construction storm water management practice than detention ponds and are highly encouraged in new commercial and residential developments. A copy of the ordinance and LID Handbook for the State of Alabama are on record at the Opelika Engineering Department and can be electronically transmitted if requested.

2. Storm Water Runoff Management

The City of Opelika's Public Works Manual requires all new development and redevelopment to comply with a 'no net increase' requirement for storm water runoff. The post-development runoff rate shall not exceed the pre-development runoff rate for various storm events, with the storm event increasing in intensity as the size of the development and/or drainage basin increases. This requirement has been in effect since 1991. A copy of the City's Public Works Manual is on record at the Opelika Engineers office and can be transmitted electronically if requested.

3. USGS Gauging Station

The City of Opelika is currently partnering with the City of Auburn to operate and maintain a USGS gauging station on Saugahatchee Creek. The gauging station monitors water quality and quantity to ensure the regularity of all necessary hydro-geomorphic processes in the watershed.

4. Saugahatchee Lake Watershed Zoning Overlay

In 2004, the City of Opelika and Opelika Utilities created the Saugahatchee Lake Watershed Zoning Overlay. The zoning overlay limits development density and impervious surface ratios, restricts land parcel sizes where sanitary sewer service is not available, and restricts land clearing for all acreage that drains to Saugahatchee Lake, both inside and outside the Opelika corporate limits. The overlay text is contained in the City's Subdivision Regulations that is available at the Engineering Department and can be electronically transmitted if requested.



5. Flood Management

The City of Opelika participates in the National Flood Insurance Program (NFIP) that is administered by the Federal Emergency Management Agency (FEMA). Chief Building Official Jeff Kappelman serves as the City's Flood Administrator. New flood zone boundary maps were approved by FEMA and adopted by the Opelika City Council on November 2, 2011. Detailed studies are available for several major creeks and tributaries.



F. Pollution Prevention/Good Housekeeping for Municipal Operations

1. Drainage Channel Inspection

The Public Works and Engineering Department personnel performs periodic inspections and maintenance operations on all major drainage channels within the City. These inspections include photographs of existing conditions and records of maintenance work performed, if any.

2. Street Sweeping

The Public Works Department operates three mechanical street sweepers that remove debris from all paved streets, gutters, and public parking lots. The Street sweeping activities provided by the Opelika Public Works Department is a very important the health and effectiveness of the storm system in the City. The street sweeper is constantly on the streets and work in zones to ensure that all streets are swept at least once per week. A City map with the weekly street sweeping schedule is located in Appendix F of this report.



Figure 9: City Street Sweepers

3. Vacuum Trucks

The City of Opelika owns and operates two storm water ‘vac-trucks’ that remove sediment and debris from inlets and culverts.



Figure 10: City Vacuum Truck

4. Bagging of Leaves and Grass Clippings

The City of Opelika, through press releases and public service announcements, regularly encourages all residents to place their leaves and grass clippings in bags for curbside pickup to help minimize the likelihood that the leaves and clippings will be washed or blown into the storm water system. The City of Opelika has recently purchased a leaf vacuum truck that is specifically designed to remove un-bagged leaves and grass clippings from the side of the roadway. With the efficient and timely removal of the loose debris further reduces the likelihood of this material getting into the storm water system.

5. Employee Training for Illicit Discharges

The City of Opelika purchased a training video on the identification and prevention of illicit discharges at the workplace. The training video has been shown to all Public Works personnel.



6. Bridge Inspections

Twenty (20) City-maintained, storm water-related bridges and culverts were inspected by the City's bridge inspection consultant during 2014. They are listed in Table 6.1 below.

Table 6.1: Bridge Inspections (2014)

Bridge Number	Location
No. 03400	Cunningham Drive over Pepperell Creek
No. 03663	North Uniroyal Road over Granberry Creek
No. 05985	Anderson Road over Halawakee Creek
No. 06937	Oakbowery Road over Rocky Creek
No. 08771	Spring Villa Road over Uchee Creek
No. 10231	Wigdon Road over Saugahatchee Creek
No. 11399	India Road over Rocky Creek
No. 12752	Oakbowery Road over Saugahatchee Creek
No. 14195	Anderson Road Culvert over Halawakee Creek
No. 16949	Grand National Parkway over Saugahatchee Creek
No. 17076	North Park Drive over an Unnamed Tributary
No. 17077	Andrews Road over Halawakee Creek
No. 19843	White Road over Rocky Creek
No. 20026	Thomason over an Unnamed Tributary
No. 20027	Waverly Parkway over Saugahatchee Creek
No. 20451	Fox Run Avenue over Granberry Creek Tributary
No. 20452	Fox Run Avenue over Granberry Creek Tributary (2)
No. 20453	Jeter Avenue over Granberry Creek Tributary
No. 20454	Jeter Avenue over Granberry Creek Tributary (2)
No. 20455	Fox Trail over Granberry Creek Tributary

7. Street Resurfacing

The City of Opelika resurfaced over 6 miles of City-maintained streets in 2014, but the City did not pave any dirt roads during 2014. The resurfaced street segments and their respective mileage lengths are shown in Table 7.1 below.

Table 7.1: Street Resurfacing (2013)

Resurfacing Areas	Road Length
Northgate Drive from Suagahatchee Lake Road to the End	0.55 Miles
Pheasant Avenue from Veterans Parkway to the end Cul-de-Sac	0.14 Miles
Grouse Avenue from Veterans Parkway to the end Cul-de-Sac	0.14 Miles
Hanson Street from WestPoint Parkway to Ridge Road	0.55 Miles
Hanson Court from Hanson Street to the end Cul-de-Sac	0.10 Miles
Kingston Street from Alabama Highway 169 to the End	0.09 Miles



Watkins Avenue from Kingston Street to the end Cul-de-Sac	0.16 Miles
McCoy Street extension from Gay Street to the End	0.11 Miles
Whitehall Drive from McCoy Street to the End	0.07 Miles
Oak Court from Darden Street to the End	0.11 Miles
Maple Avenue from Raintree Street to Darden Street	0.12 Miles
Shadywood Court from India Road to the end Cul-de-Sac	0.05 Miles
Magnolia Street from Auburn Street to ML King Street	0.15 Miles
Thomason Place to E. Thomason Circle to Lynch Avenue	0.06 Miles
Norman Street from Andrews Road to Norman Circle	0.07 Miles
Norman Circle from Norman Street to the end Cul-de-Sac	0.06 Miles
Dorsey Street from Country Club Road to the End	0.20 Miles
Spring Hill Court from Spring Hill Avenue to the end Cul-de-Sac	0.05 Miles
Orr Avenue from Alabama Highway 51 to Poplar Street	0.29 Miles
Green Street from Orr Avenue to Williamson Avenue	0.08 Miles
Poplar Street from Williamson Avenue to Wittel Avenue	0.26 Miles
Dunlop Circle from Dunlop Drive to the end Cul-de-Sac	0.02 Miles
Groce Street from the beginning to end Cul-de-Sac	0.11 Miles
Staley Avenue from Simmons Street to N. 3 rd Avenue	0.22 Miles
N. 13 th Street from N. 3 rd Avenue to the End	0.07 Miles
N. 3 rd Avenue from N. 13 th Street to N. 12 th Street	0.08 Miles
Shelby Avenue from Gwen Mill Drive to Crossley Avenue	0.24 Miles
Crossley Avenue from Novella Street to Clearmont Street	0.37 Miles
Novella Street from Forestdale Court to Crossley Avenue	0.09 Miles
Clearmont Street from Crossley Avenue to McClure Avenue	0.15 Miles
Clearmont Circle from Clearmont Street to the End	0.07 Miles
Donald Avenue from S. Long Street to West Street	0.19 Miles
Auburn Place from West Street to Auburn Street	0.08 Miles
Fruitland Avenue from Auburn Street to the End	0.09 Miles
Various bridge approaches on Fox Run and Jeter Avenue	0.17 Miles
6 th Street Entrance and Exit ramps from S. Railroad the Avenue B	0.14 Miles
India Road from Northgate Drive to the end Cul-de-Sac	0.26 Miles



8. Street Maintenance

The City of Opelika Public Works Department performed maintenance activities as needed during the 2013-2014 permit year. Maintenance areas addressed are listed below in table 8.1.

Table 8.1: Public Works Maintenance Activities

Activity	Frequency
Clean Drainage Swales	As needed
Clean Storm Drain Inlets	As needed
Clean Drainage Culverts	As needed
Repair Drainage Swales	As needed
Repair Drainage Culverts	As needed
ROW Mowing	As needed
Street Sweeping	Once per week
Litter Collection	Continuously
Maintenance of Adopt-A-Mile Areas	Continuously

9. Chemical Use

The City of Opelika Public Works Department maintains trained and certified personnel in the application of pesticides, including restricted-use pesticides. The certified personnel know the correct procedure for the application of pesticides, information on the proper use of fertilizers and other chemicals typically used to maintain athletic fields, and BMPs for trees, shrubs, and turf that are intended to reduce the need for pesticides, fertilizers, and irrigation.



6.0 Summary

6.1 2014-2015 Permit Year

The City has worked hard to improve the quality of the storm water management system during this permit year by implementing many new procedures. One procedure is the implementation of the in-house water sampling of the impaired streams within the City by sending Engineering Department personnel to become certified with AWW in chemical and Bacteriological testing. Along with the certification of City staff, the City has also made investments with the purchase of an incubator and testing supplies for the purpose of growing E. Coli samples for tracking and data collecting with AWW's database. Other procedures that were implemented this past permit year is the increased enforcement of developments that do not fulfill the permitted requirements of the Land Disturbance Permit.

With the change in the Engineering Department in the recent years, a new City Engineer and Assistant City Engineer, the lead Department responsible for the storm water management, is becoming more acclimated in the SWMP requirements and is looking to add many improvements in the years to come.

6.1.1 Program Strengths

The City's strengths are the result of the community that works together to help provide for a safe and clean environment for all citizens. With the continued growth and development of the community, the City looks to make improvements to the transportation, closed storm water collection and open air waterway infrastructure throughout the City. The departments and leadership of the City are committed to financially support the improvements of the aging infrastructure of the City instead of just covering them up as has been the practice in the past. This commitment, though challenging is a strength of positive change that has not been obviously evident in the past.

The City will continue to increase inspections and enforce construction erosion and sediment control measures outlined within the City's Phase II MS4 permit. Increased education with the City employees and citizens of all ages, will add exposure of environmental, water quality, and erosion control awareness in the community. This education will be evident through an increase of citizen reporting of violations, and these efforts are vital to this process. The planned improvement of infrastructure system, and the increased testing will provide the City with a mechanism to ensure adequate long-term operation and maintenance of post construction storm water management BMPs.

These program strengths will further lead to a more positive and more involved citizenry attitude, which will demand the responsibility and the best service from the public servants. Some of the City's other strengths are more closely identified as follows:

- Keep Opelika Beautiful (KOB) is a group that works to educate the citizens of Opelika on the importance of a clean environment and promote public interest in public involvement.
- The City of Opelika is fortunate to be able to partner with great civic groups within the area like Save Our Saugahatchee (SOS) and ALOAS. These groups provide great input on the City's program and also help the City to develop the best program for the City.



- The City has plans to create stream and wetland mitigation credits on City owned property for use in the mitigation of other wetlands and streams of City projects.
- The City has recently included a pre-construction meeting for all developments to discuss project communication and initial erosion control inspections for construction sites. These meetings with the contractors, developers, and designers increase the awareness of the City's policies and procedures throughout the development procedure.
- The City has implemented their new post-construction storm water ordinance that provides regulations and guidance with permitting and tracking of developments from the initiation to the long term inspection and maintenance of the post-construction storm water facilities.

6.2 Program Improvements

The City of Opelika has been working to be proactive in the storm water management requirements after the Alabama Department of Environmental Management (ADEM) brought the City's MS4 program deficiencies to light in September 2013 with an NOV. The City responded to the NOV in November of 2013 with their contentions to the NOV and supplemental data.

Even though the Engineering Department is the primary department that manages and fulfills the obligations of the Storm Water Management Plan, the budgetary constraints within the Engineering Department will not allow an increase in staffing with permanent employees, engineers or technicians over the next year. Although this hurdle may seem daunting, the Engineering Department will remain being diligent in time management and more efficient inspection, testing, and data collection procedures to remain compliant and grow the program. There is also projected to be some employee turnover with retirement. These employees will be replaced with qualified individuals that will also add to the staff dedicated to the SWMP requirements.

Improved tracking and recording technology that is currently being planned and implemented by the City Administration, through the further development of the GIS system and document management system. This technology will allow for more effective and efficient monitoring and tracking that is required by the City's SWMP. This will allow the City to meet the designated goals set. Overcoming the challenges of staffing limitations due to budgetary restrictions with technology and a cooperative effort with other agencies is the major projected improvement anticipated in the up-coming year.



7.0 Goals for the 2014-2015 Permit Year

The City of Opelika feels as though they are making great strides to provide their citizens with a strong and accessible storm water program. The City has identified many goals for the upcoming year to further improve their program. These goals are listed below:

- The City will continue developing a database of the standard operating procedure for necessary activities outlined in the SWMP.
- The City will continue to map, survey and identify the storm water infrastructure in more detail with the assistance of Auburn University intern students and add this data to the City's GIS.
- The City will be working to provide more educational events in the area that foster community involvement on storm water impacts.
- The City Engineering Department Staff will be attending additional Low Impact Development (LID) and Storm Water Management training and conferences in order to determine the most feasible choices for the City of Opelika and its citizens.
- The City is developing an assessment program to better identify training needs with its municipal employees.
- Increased water quality testing is planned and will be expanded outside the limits established in the SWMP to include identification of point source pollution locations in the aging infrastructure that will need to be remedied.

