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**STORMWATER  
MANAGEMENT PROGRAM  
ANNUAL REPORT**



**City of Auburn**

**PERMIT YEAR EIGHT**

March 10, 2010 – March 10, 2011

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SUBMITTED IN ACCORDANCE WITH THE REQUIREMENTS OF  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

**PERMIT NUMBER ALR040003**

# **CITY OF AUBURN**

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEMS (NPDES)**

**PERMIT NUMBER ALR040003**

**MUNICIPAL STORMWATER PROGRAM ANNUAL REPORT**

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

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# STORMWATER MANAGEMENT PROGRAM ANNUAL REPORT



City of Auburn

**PERMIT YEAR EIGHT**

March 2010 - March 2011

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## **I. INTRODUCTION**

In response to the National Pollutant Discharge Elimination System (NPDES) Phase II Stormwater Regulations, the City of Auburn (City) applied for and received an NPDES permit for stormwater discharges from the Alabama Department of Environmental Management (ADEM) on May 14, 2003.

This report is being submitted to the ADEM pursuant to Part V, paragraph C of NPDES Permit ALR040003.

This annual report is the eighth report and covers the reporting period from March 2010 through March 2011. The stormwater program outlined in this report is patterned after the program submitted to and approved by ADEM in March 2003 in the City of Auburn's Notice of Intent (NOI) (Appendix A). The five year permit expired in March 2008. At ADEM's direction, the City has continued to operate under the original permit until the Phase II NPDES permit for the City is renewed. The City submitted an NPDES permit renewal application to ADEM in August 2007. On September 10, 2009, ADEM released the proposed NPDES Phase II Stormwater Permit to Municipal Separate Storm Sewer System (MS4) permittees in draft form for review and comment. ADEM, realizing that significant changes were going to occur with the new Phase II Permit, elected to host a series of public involvement workshops and hearings for the Phase II permittees beginning in October 2009. These workshops and hearings provided an opportunity for ADEM to go through the changes in the new Permit with the permittees and provided an opportunity for permittees to ask questions of ADEM regarding the Permit. Formal comments provided by the permittees were reviewed and addressed in the draft Phase II Stormwater General Permit for MS4s released for public comment on January 14, 2010. Additional comments were received on the January 2010 draft permit during the public comment period. ADEM issued a revised draft permit addressing these comments in May 2010. The Environmental Protection Agency (EPA) filed a formal objection to the May 2010 draft permit issued by ADEM in

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*March 2010 – March 2011*

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August 2010. ADEM addressed EPA's additional comments in a draft permit issued in November 2010 and EPA approved the November 2010 draft permit in December 2010. ADEM issued the final permit to the Phase II permittees, including the City, effective February 1, 2011. This stormwater report will be the final report for the original NPDES permit issued in March 2003.

## **II. SITE DESCRIPTION**

The City of Auburn (City) is located in East Central Alabama. A map of the City is provided in Appendix B. The city limits encompass an area of approximately 53 square miles (37,446 acres) as of January 2011. This area calculation does not include Auburn University property. The population of Auburn is approximately 55,000. There are approximately 72 miles of creeks and streams flowing through Auburn. This stream mileage was determined using the newly available FEMA Flood Map Modernization Project data. From the most recent City storm drainage system inventory, the storm drainage system contains approximately 86 miles of storm pipe with 4,500 inlets and 3,000 stormwater manholes/junction boxes. The City is currently updating its stormwater infrastructure inventory. The City approved nine (9) residential/commercial plats in 2010 as compared to seven (7) plats in 2009.

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### **III. KNOWN OR SUSPECTED WATER QUALITY PROBLEMS**

The City's storm sewer system discharges into streams located in four primary watersheds, including Moore's Mill Creek (Southeast), Saugahatchee Creek (North), Chewacla Creek (South) and Parkerson's Mill Creek (Southwest).

Moore's Mill Creek was placed on the draft 303(d) list in 1998 and was listed on the final 303(d) list in 2002, 2004, 2006, 2008 and 2010. Known water quality concerns within the jurisdictional area were identified as stream siltation resulting from sedimentation deriving from local development within the Moore's Mill Creek watershed.

The Saugahatchee Embayment, where Saugahatchee Creek discharges into Yates Lake, was placed on the final 303(d) list in 1996, 1998, 2000, 2002, 2004, 2006 and 2008. The Embayment was listed on the 303(d) list primarily for nutrient enrichment. ADEM and the USEPA issued the final Total Maximum Daily Load (TMDL) for nutrients and organic enrichment/dissolved oxygen for Pepperell Branch and the Saugahatchee Embayment in April 2008. Implementation of the stormwater TMDL will be addressed in the City's Phase II Permit issued on February 1, 2011.

Parkerson's Mill Creek, from its source to Chewacla Creek, was placed on the final 303(d) list in 2008 and 2010. Known water quality concerns within the jurisdictional area were identified as pathogens resulting from urban runoff and storm sewers. A TMDL for Parkerson's Mill Creek is anticipated to be issued in 2012.

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#### **IV. RESPONSIBLE PARTY**

The City's Stormwater Management Program (SWMP) is composed of several programs operating under various departments within the City's organization. Components of the SWMP are as follows:

- Environmental Services Department – Operates the recycling and composting program; Operates and manages the street sweeping program;
- Public Works Department – Performs maintenance of stormwater infrastructure and assists with inspections of residential and commercial construction; Performs annual detention pond inspections;
- Public Safety Department, Codes Enforcement Division – Monitors residential and commercial construction;
- Water Resource Management Department – Monitors residential and commercial construction and conducts erosion and sediment control inspections; Manages water quality sampling program; Manages public education and outreach program; Assists the Public Works Department with annual detention pond inspections; Manages overall compliance with Phase II Stormwater Permit.

When the City began its Phase II program, coordination and implementation of the individual SWMP was the responsibility of the Public Works Department. In October 2005, management of the stormwater program was transferred from the Public Works Department to the Water Resource Management Department, under a newly created Watershed Division. The intent of the move was to manage water supply operations, wastewater operations, and stormwater operations from a watershed perspective for all components that impact water quality within the City.

The person responsible for the coordination and implementation of the individual SWMP is as follows:

Matt R. Dunn, P.E., Watershed Division Manager  
Water Resource Management Department  
City of Auburn  
1501 West Samford Avenue  
Auburn, AL 36832  
(334) 501-3077  
[mdunn@auburnalabama.org](mailto:mdunn@auburnalabama.org)

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## **V. STORMWATER MANAGEMENT PROGRAM COMPONENTS**

The Phase II stormwater regulations require operators of small Municipal Separate Storm Sewer Systems (MS4s) in urbanized areas to develop and implement stormwater management programs employing best management practices (BMPs) to adequately address the six minimum control measures. The control measures include:

- Public Education and Outreach
- Public Involvement/Participation
- Illicit Discharge Detection and Elimination
- Construction Site Stormwater Runoff Control
- Post-Construction Stormwater Management
- Pollution Prevention/Good Housekeeping for Municipal Operations

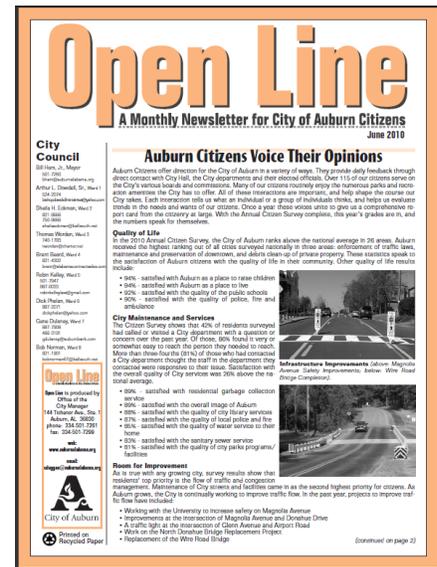
In March 2003, the City submitted to ADEM a Notice of Intent (NOI) to implement a stormwater management program under the Phase II stormwater regulations. The goals of the individual components of the program and implementation dates were outlined in this document. At the end of permit year eight, all program components outlined in the NOI have been implemented.

## VI. PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS

### A. Articles in the City Newsletter “Open Line”

Open Line is a monthly newsletter mailed to Auburn citizens through their utility bill. Articles and messages contained in the newsletter reach a large and diverse group of citizens. The goal for articles in Open Line is to produce two (2) articles per year. During the eighth permit year, a total of thirteen (13) articles were published in which stormwater issues were highlighted or affected:

- *Governor Riley Visits RecycleAuburn Drop-Off Center – January 2010*
- *2010 Citizen Survey Results Coming Soon – January 2010*
- *FEMA Floodplain Maps and Flood Insurance Study Update - Monthly*
- *CompPlan 2030 Update – February 2010*
- *Get Social with the City of Auburn – February 2010*
- *2010 Citizen Survey Underway - February 2010*
- *Countdown to Auburn CityFest 2010 - March 2010*
- *Auburn CityFest 2010 - April 2010*
- *8<sup>th</sup> Annual Household Hazardous Waste Collection Day – April 2010*
- *Auburn Citizens Voice Their Opinions – June 2010*
- *City Offers Incentives for Recycling – June 2010*
- *Waste Collection Day Yields Record Numbers – June 2010*
- *Developer to Build City’s First Conservation Subdivision – October 2010*



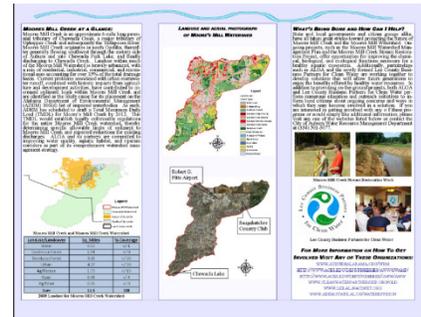
Copies of these articles can be downloaded from the City’s website at <http://www.auburnalabama.org/openline/>.

### B. Brochure Publications

Pamphlets and brochures are an effective way to present and explain stormwater issues. Unlike other communication vehicles, pamphlets and brochures can be distributed in many locations without requiring staffing and the location of distribution can specifically target the audience you are trying to reach. The goal for brochure publications is to produce two (2) brochures per year. During the eighth permit year, two (2) brochures were published with a total of eight (8) brochures available for distribution by the City. Brochures provided by the City over the past year include:

Brochures Published by the Auburn, Lee County, Opelika and Auburn University (ALOA) Citizen Advisory Group:

- Moore’s Mill Creek Watershed
- Sewer Systems – Differences Between Storm and Sanitary



Copies of these brochures can be downloaded from the City’s website at <http://www.auburnalabama.org/wrm-watershed/aloa.asp>.

Additional Brochures Distributed:

- Washing Cars (ALCWP)
- Changing Oil (ALCWP)
- Pets (ALCWP)
- Fertilizing (ALCWP)
- Saugahatchee Creek Watershed: Past, Present and Future (SWaMP)
- Fats, Oils and Grease Recycling Program (City of Auburn)



C. Website

Citizens often go to the City’s website to obtain information on items of local interest. The web page 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 goal for the website was to develop a Phase II Stormwater section on the existing website in 2003 and post that website in 2004. This goal was met a year early when the Phase II Stormwater website was posted in March 2003. City stormwater policies, ordinances, design manuals and links to related sites (ADEM and EPA) have been posted and are available to the public.



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The City's Stormwater website was moved from the Public Works Department home page to the Water Resource Management Department home page in 2005. The Stormwater website was updated in 2010 to include water quality sampling data reports and information on the erosion and sediment control program, as well as additional links, resources, and new photographs.

For more information on the website please visit:

<http://www.auburnalabama.org/wrm-watershed>

#### **D. Video Presentations/Webcasts**

Periodically, the City obtains relevant stormwater information in video/internet format. The videos are presented to local interest groups and also made available for loan upon request. Videos are typically provided by ADEM, LEGACY, and other non-profit organizations. Webcasts based on stormwater related topics are often hosted by the City. Video/internet media hosted by the City over the past year include:

- Stormwater Rulemaking Listening Sessions (U.S. EPA, February 3, 2010)
- The Watershed Treatment Model – A TMDL and MS4 Tracking Tool (Center for Watershed Protection, June 16, 2010)



#### **E. Public Presentations**

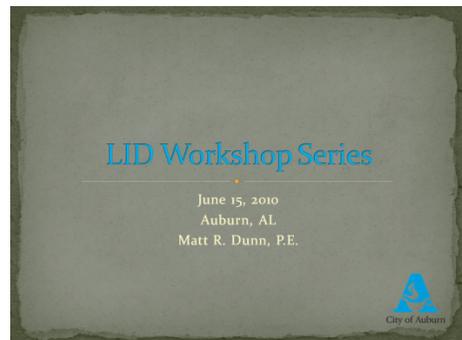
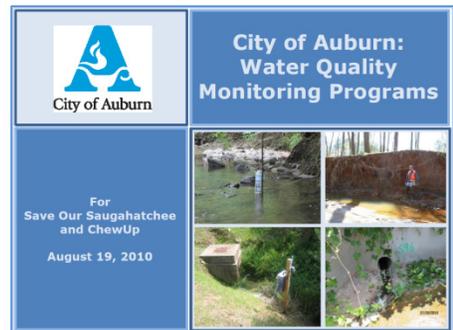
The City provides staff and/or resources to develop presentation materials for public meetings. Typically presentations are offered in PowerPoint format and the topics are chosen by the organization requesting the information.

Five presentations were made during the eighth permit year. Presentations were given at various workshops and to various groups, including the Southeast Regional Water Quality Assistance Network (SERWQAN), Save Our Saughatchee (SOS), Friends of Chewacla (CHEWUP), Auburn University, and Auburn High School.

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Presentations prepared and provided by City staff over the past year include:

- SERWQAN Assisted Projects and Future Opportunities; SERWQAN Workshop; Asheville, NC (April 2010)
- LID Workshop Series; Auburn, AL (June 2010)
- City of Auburn: Water Quality Monitoring Programs; SOS and CHEWUP; Auburn, AL (August 2010)
- Basics of Site Due Diligence; Auburn University Biosystems Engineering Class; Auburn University, AL (September 2010)
- City of Auburn: Watershed Management; Auburn High School JROTC; Auburn, AL (December 2010)



## F. Workshops Hosted

In an effort to educate contractors, developers, engineers, and staff, the City has initiated a series of workshops. The content of the workshops focuses on local stormwater issues of concern. Workshops hosted by the City over the past year include:

- **Erosion and Sediment Control Workshop (December 2010)** – The City hosted its eighth annual Erosion and Sediment Control Workshop on December 9, 2010. The purpose of the Workshop is to educate and interact with local engineers, developers and contractors who are governed by the City’s Erosion and Sediment Control Ordinance, the ADEM stormwater regulations, and the United States Army Corps of Engineers (COE) regulations. A representative from ADEM gave a presentation focusing on the new NPDES general stormwater permit for construction sites. American Excelsior Company gave a presentation on the proper design and application of erosion



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control matting/blankets. A field demonstration of the latest technologies in erosion and sediment control was provided by a local erosion and sediment control contractor. Approximately 30 developers, contractors, and engineers attended the workshop.



- **Materials Handling/Spill Prevention Workshop (June 2010)** – The Water Resource Management Department sponsored its third annual Materials Handling and Spill Prevention workshop in June 2010. This workshop targets City employees who deal with fuels and chemicals on a daily basis and provides basic information on the proper management, handling and disposal of potentially hazardous chemicals. Approximately five (5) City employees attended this workshop.



### **G. Composting & Recycling Center/Household Grease Recycling Program**

The City of Auburn has been operating a curbside recycling program since 1987. In addition to curbside recycling, the City maintains a drop-off center for recyclables. The *RecycleAuburn* drop-off center is located across from the Fleet Services Complex at 365-A North Donahue Drive. These operations allow citizens of Auburn to recycle waste instead of disposing of it in the landfill. The Water Resource Management Department initiated a Household Grease Recycling Program in 2009, with containers and bins located at the recycling center. This program provides citizens with a mechanism to properly dispose of household grease and is targeted at reducing potential sanitary sewer overflows. Approximately 700 gallons of used cooking oil/grease have been collected since implementation of the program in March 2009. For more information on our household grease recycling program, please visit <http://www.auburnalabama.org/wrm-sewer/FOG.asp>.



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In addition, the City maintains a Compost Demonstration Site that serves as an example of how homeowners can easily incorporate a home composting operation into a normal backyard setting. The site features six backyard compost units. The units range from a simple pile to a concrete bin.



The exhibits take the public through the process of how to compost and recycle materials for garden use and encourage these practices. For more information on recycling of waste, please visit: <http://www.auburnalabama.org/es/>.

#### **H. Streamside Class Room Initiative**

In an effort to educate and raise awareness in our community about the need to protect local streams, the City, ALOA (citizen storm water advisory committee), Save Our Saugahatchee (S.O.S.), Alabama Water Watch and Auburn City Schools have joined together to provide streamside classroom activities.

Students from local middle schools combine classroom instruction with hands on field activities to conduct water chemistry and a biological assessment of a local stream. The program, geared to sixth graders, focuses on providing the students with a background in the type of habitat expected to sustain a healthy stream. The students conduct a chemical analysis of the stream and compare the results with that of a biological assessment of the same stream. Due to inclement weather, outdoor activities were not conducted in 2010. However, volunteers brought the Streamside Classroom into the student's classroom and provide hands-on demonstrations of the biological and chemical assessments.



#### **I. Storm Drain Marking Project**

In cooperation with the Auburn University Sustainability Initiative, the City initiated a storm drain marking program in 2007. School children within the City of Auburn were asked to submit designs for the original markers that were to be placed in the Saugahatchee Creek, Town Creek and Moore's Mill Creek watersheds. A number of the students' designs were selected for use. In 2010, the City of Auburn solicited new marker designs from children in the local school system. Winners were selected in April 2010 and had the opportunity to meet Mayor Ham to showcase their artwork. The



local newspaper also ran an article on the project in April 2010. In 2009, the City developed a storm drain marking kit program that allows citizens to pick up a bag of materials containing all of the items needed to mark storm drains in their neighborhoods. Once the drains are marked, the citizen returns any unused materials to the Water Resource Management Department as well as a map showing the storm drains that were marked. In 2010, markers were installed by a variety of local interest groups including the Auburn High School JROTC, the Asheton Lakes Homeowners Association, the Auburn University Student Government Association, local Boy Scouts, Dean Road Elementary School students, as well as a number of interested local citizens. In 2010, approximately 250 markers were installed.



## J. Rain Catchers/ARCSA Workshop

The City, along with stakeholders from ADEM, the Alabama Clean Water Partnership, Auburn University, Saugahatchee Watershed Management Plan (SWaMP), Save Our Saugahatchee, and the Alabama Cooperative Extension Service came together in 2009 to form a group known as the “Rain Catchers”. This organization was formed with the intent of promoting the use of rain barrels and rain gardens to area citizens and to provide training on proper installation. The “Rain Catchers” are a wonderful example of how a grass roots effort can make a big difference. Through partnership with the World Wildlife Fund, the Alabama Clean Water Partnership and the Rain Catchers, Coca-Cola donated the majority of the barrels for the project. Approximately two hundred (200) rain barrels have been constructed in the Auburn area through the Rain Catchers workshops since 2009.



In September 2010, the City provided sponsorship to a series of workshops hosted by the American Rainwater Catchment Systems Association (ARCSA) in Loachapoka, Alabama. Two workshops were held: (1) ARCSA Introduction to Rainwater Harvesting Level 100; and (2) ARCSA Rainwater Harvesting Accreditation Level 200. The Level 100 course was a one day introductory course open to anyone interested in learning more about rainwater harvesting. The Level 200 course was an in-depth design course for



professionals interested in obtaining the ARCSA Accredited Professional designation. Approximately thirty (30) people attended the Level 100 course, while approximately ten (10) people attended the Level 200 Course.

## K. SERWQAN/Low Impact Development Workshops

In 2008, the City of Auburn was selected as one of twelve communities in the southeastern United States as a partner in the Southeastern Regional Water Quality Assistance Network (SERWQAN). SERWQAN was “developed to provide a suite of technical and educational services to help communities and watershed associations achieve water quality protection.” The City used SERWQAN assistance to host a series of Low Impact Development (LID) workshops as well as for post-restoration monitoring of the Town Creek Stream Restoration Project.



The series of four LID workshops, hosted by the City of Auburn, and presented by the Alabama Cooperative Extension Service, in June 2010 were very successful. The four workshops focused on detailed design of (1) Bioretention; (2) Permeable pavements; (3) Stormwater wetlands; and (4) Vegetated swales, level spreaders, and filter strips. The workshops provided engineers, landscape designers and City personnel with detailed design concepts through “hands-on” design examples in the workshops. Approximately fifteen to twenty people attended each workshop.



## L. Auburn CityFest 2010

The City hosted its 10<sup>th</sup> annual CityFest in April 2010. CityFest is a free, outdoor festival for people to enjoy arts and crafts, exhibits, live music and entertainment as well as a variety of activities for children. Thousands of people attend CityFest each year to enjoy these activities. The Water Resource Management Department hosted a booth at CityFest 2010 aimed to educate citizens on the importance of water resource protection through poster displays, free brochures and giveaways. This event has proven to be a successful education and outreach opportunity for our



March 2010 – March 2011

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stormwater program.

### **M. Ogletree Elementary School Earth Day Field Activities**

On April 21, 2010, Water Resource Management staff participated in the first annual Ogletree Elementary School Earth Day field trip to Chewacla State Park. This event is an all-day natural resource education and outreach initiative organized by the teachers of Ogletree Elementary School for 3<sup>rd</sup> – 5<sup>th</sup> grade students. Watershed Division staff hosted a booth at the forebay of the Chewacla State Park Lake demonstrating various water quality monitoring techniques, tools and methods. Students and their teachers were given a basic introduction to water quality indicators and how each parameter may be evaluated against water quality criteria.

### **N. Cary Woods Elementary School Conservation Convention**

On April 22, 2010, Water Resource Management staff participated in the annual Cary Woods Elementary School Conservation Convention (CWESCC). The CWESCC is an all-day natural resource education and outreach initiative provided for both the students of CWES and the surrounding community. Watershed Division staff hosted a booth demonstrating various water quality monitoring techniques, tools and methods. Citizens and



students were given a basic introduction to water quality indicators and how each parameter may be evaluated against water quality criteria.

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## VII. PUBLIC INVOLVEMENT/PARTICIPATION

### A. Citizens Advisory Committee

Both the EPA and ADEM recommend that the public be included in developing, implementing, and reviewing stormwater management programs through the establishment of a citizens 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.



**ALOIA CITIZENS STORMWATER ADVISORY COMMITTEE** (2001-present) - **ALOIA** is a Citizens' Advisory Committee that serves Auburn, Lee County, Opelika, and Auburn University. It meets on a quarterly basis to review and provide public input on current policies, brochure content, educational material, and proposed ordinances.

In 2010, ALOIA produced two brochures. The two brochures produced were titled *Moore's Mill Creek Watershed* and *Sewer Systems*. These brochures are available to the citizens of Auburn and can be obtained at City Hall, the Bailey-Alexander Water and Sewer Complex or by contacting the Water Resource Management Department at (334) 501-3077. The brochures can also be downloaded from the City's website at <http://www.auburnalabama.org/wrm-watershed>.

### B. Watershed Organizations

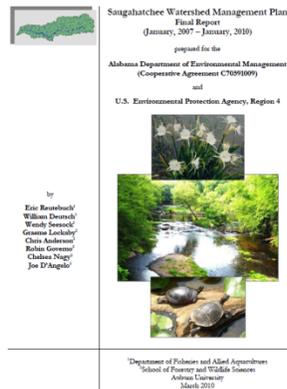
Regional watershed organizations bring together representatives from utilities, private industry, environmental awareness groups, farmers and branches of government to coordinate individual efforts, share information and plan for water resource and aquatic life protection. The regional approach allows participating entities to coordinate individual efforts in order to maximize limited resources.

**LOWER TALLAPOOSA RIVER BASIN/CLEAN WATER PARTNERSHIP** (2001-present) - The City actively participates in the Lower Tallapoosa Clean Water Partnership and on technical sub-committees to assist and guide the development and implementation of a watershed management plan. The organization meets on a quarterly basis. In 2010, as a member of the Clean Water Partnership, the City participated in the development of the Moore's Mill Creek Stream Restoration Project.



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**SAUGAHATCHEE WATERSHED MANAGEMENT PLAN GROUP (SWAMP) - (February 2004 – present)** Over the course of the past year, the City of Auburn has actively participated in the SWAMP group along with other stakeholders in the Saugahatchee



Creek watershed to complete Phase I implementation of a watershed management plan for the watershed that encompasses parts of Lee, Macon and Tallapoosa Counties. The stakeholder group is made up of representatives from the Cities of Auburn and Opelika, WestPoint Stevens, Inc., MeadWestvaco, Inc., Save Our Saugahatchee (S.O.S.), the Natural Resources Conservation Service (NRCS), the Alabama Cooperative Extension Service (ACES), the Lower Tallapoosa Clean Water Partnership (LTCWP) and Auburn University. The plan was finalized and submitted to the ADEM in March 2005. The SWAMP group received implementation funding from the ADEM in 2007. SWAMP completed the first three (3)

years of implementation (Phase I) in January 2010. Funding for Phase I of the implementation plan expired in 2010 and SWAMP applied for, and was awarded, a Phase II implementation program grant in January 2011. A final report on Phase I Implementation was submitted to the ADEM in March 2010. The Phase II Implementation period will be for two (2) years.

### **C. City of Auburn Earth Week 2010/Household Hazardous Waste Collection Day**

Earth Day is a week-long event in the City of Auburn. Over the last several years, City departments have worked to create and implement a week of environmental activities and events aimed at educating citizens of all ages of the importance of protecting our environment. In conjunction with Earth Week, the City hosted its 8<sup>th</sup> Annual Household Hazardous Waste Collection Day in 2010. This annual event is a favorite among Auburn residents. Each year, the City allows its customers 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 in local creeks and streams. The 2010 Household Hazardous Waste Collection Day yielded record numbers as approximately 22,173 pounds (10 tons) of waste was collected! Additional Earth Week 2010 activities included:



- Educational Activities for 2<sup>nd</sup> Graders (NRCS – Enviroscope model, Auburn Water Board flocculation experiment, Recycling Demonstration, Auburn Tree Commission – Tree Demonstration, Weston Inc. – Flower planting activity,);
- Various public library activities centered around Earth Week.



## D. Website Hotline

In an effort to provide the general public with an additional means of reporting potential erosion control violations, the City launched the “On-Line Hotline” in March 2003. Citizens now have the ability to log on to the website 24 hours a day and provide information on suspected violations. The information is forwarded to the Water Resource Management Department and an investigation is initiated. The website hotline has proven to be a valuable tool over the course of the past eight years by assisting City personnel in responding to citizens concerns. For more information concerning the hotline, please visit <http://www.auburnalabama.org/wrm-watershed/>.



## E. Arbor Day Tree Give Away

The planting of trees improves water quality by reducing stormwater runoff and erosion, while facilitating nutrient removal from the stormwater runoff. In celebration of Alabama’s Arbor Day and to encourage the reforestation of the City’s urban landscape, the City’s Tree Commission sponsors a tree giveaway. The Commission gave away 1,000 Cherrybark Oaks and 1,000 Redbud seedlings at the annual 2010 Arbor Day Tree Giveaway. The City also gave away 750 Redbud and 750 Red Maple seedlings at this past year’s Christmas parade.

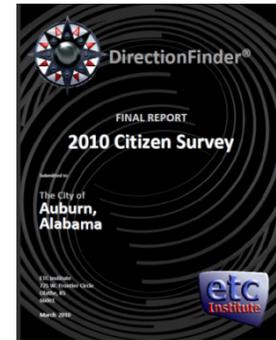
## F. City of Auburn Citizen Survey

The citizen survey is an annual survey of a statistical cross section of randomly selected members of the community. The survey asks questions on issues of governmental performance and community priorities and is a means of encouraging citizens to participate in local government. In 2010, the survey contained several questions that directly impacted stormwater quality issues. The questions covered issues such as storm drainage system efficiencies, stormwater quality, trash collection, yard waste disposal, recycling, natural resource protection, greenspace

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initiatives and future growth planning. As it relates to stormwater management, approximately 65 percent of those surveyed were either satisfied or very satisfied with the City's quality of performance in this area.

To view the Citizen survey, please visit:  
<http://www.auburnalabama.org/survey>.



## G. Newspaper Articles

Newspaper articles 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 provide the reader with an independent point of view. The reader is not forced to rely on information generated by a single source (i.e. City through the newsletter Open Line or brochures).

The City is fortunate to have a local daily publication. The Opelika-Auburn News is a regional daily newspaper that covers local events and is widely read by residents of Lee County. A weekly newspaper publication, the Auburn Villager, began circulation in 2007. Approximately eight (8) articles and editorials were published in the last year that directly dealt with stormwater/environmental issues. A listing of articles and publication dates is included in Appendix C of this report.

## H. Greenspace/Greenway Master Plan

The Auburn Greenspace Advisory Board (GAB) was created by a City Council resolution in 2002. Its objective was to identify potential areas for future property acquisitions for parks, recreation facility projects, and greenways. Once identified, these properties could be purchased and/or protected from development.

In 2003, the GAB recommended a Greenspace/Greenway Master Plan for the City. It was adopted in December 2003 by the City Council and has been utilized by the Planning Commission in connection with approval of projects. The GAB recently revised the initial Plan to include a vast expansion of the proposed greenspace/greenway areas. This first addition to the Greenspace/Greenway Master Plan was adopted by the City Council in October 2004.



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This plan has resulted in the acquisition of several hundred acres of property located in environmentally sensitive areas. The City is currently working on obtaining easements along Saugahatchee Creek for a proposed greenway project. The greenspace/greenway areas include proposed bikeways and trails along existing and new roads and along waterways located within the City's growth boundary. Areas along waterways may be improved with natural trails and will be preserved by the dedication of conservation easements in developments or the acquisition of property by the City. The properties have been set aside for future uses by the City, as recommended by the GAB. In 2010, the City obtained greenspace associated with a conservation subdivision on Richland Road. This project is discussed in further detail later in this report. A copy of the current Greenspace/Greenway Master Plan is included in Appendix D of this report.

### **I. Auburn Interactive Growth Model**

In 2007 – 2008, the City, through its Planning Department, contracted with a firm to develop the Auburn Interactive Growth Model (AIGM), a tool the City utilizes to make informed planning decisions. Detailed inventories were conducted for current development such as housing unit by type, population by age groups, retail space by gross area, etc. A demographic forecasting model was developed as well as models for other uses that will provide guidance for future land use allocations. The AIGM also forecasts the spatial distribution of the population over time and the apportionment of land uses necessary to meet the needs of the population. The Planning Department updates the AIGM annually. Since its initial completion, the AIGM's population projections have been used in projecting water and sewer demand, future traffic, regional growth, and as the foundation of the Future Land Use Plan component of CompPlan 2030.

### **J. CompPlan 2030**

In 2009, the City's Planning Department began development of CompPlan 2030, a comprehensive plan to guide future development in Auburn. CompPlan 2030 focuses on the following key areas: current and future land use; how land use and the built environment affects our natural resources; schools, parks and other civic facilities; and transportation. The Plan provides guidance for future planning based on public input, analysis of current and future conditions, and best practices. A series of public meetings was held in 2009 and 2010 to allow citizens to share their ideas for Auburn's future, giving citizens a voice in the development of the plan. The draft Future Land Use Plan and other plan recommendations are complete, and the public comment period ended January 23,



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2011. The Future Land Use Plan provides parcel-level recommendations for the type and scale of new development for the next twenty years, and is the product of a strategy to promote infill development and growth in downtown Auburn, and replaces the 2004 Future Land Use Plan. The Natural Systems and Utility sections of CompPlan 2030 provide recommendations for water conservation and stormwater management. The plan is scheduled for consideration by the Auburn City Council in May 2011.

### **K. Lee County Water Festival**

On May 13 and 14, 2010, the seventh annual Lee County Water Festival was held on the campus of Auburn University. Over 1,900 fourth graders from schools in the Lee County area attended the two-day event. The primary purpose of the event is to educate young people on the importance of our water resources and the role each of us plays in conserving our water. During the event, students learned about water filtration, aquifers, and the water cycle through hands-on activities such as building an edible aquifer, making a water cycle bracelet, and building a mini-filtration unit. Volunteers from the City, the Auburn Water Works Board, the City of Opelika, and other local groups helped make last year's event a huge success. Planning is currently underway for the 2011 Water Festival to be held at Auburn University on May 12 and 13, 2011.



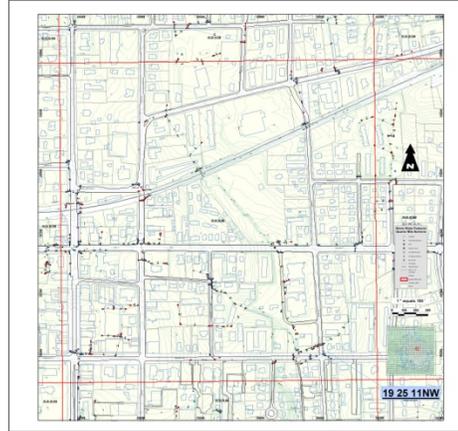
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## VIII. ILLICIT DISCHARGE DETECTION AND ELIMINATION

### A. Storm Sewer Map

The City of Auburn completed the initial mapping of its storm sewer system in 2003. The mapping is maintained in a Geographical Information Systems Database (GIS). The drainage area is divided into quarter section maps with a scale of 1"=100'. Detailed information on pipe size, pipe material, direction of flow, inlets, manholes, bridges, box culverts, detention ponds, and headwalls are provided on the maps. The City is currently evaluating options for a system-wide comprehensive update of the stormwater system asset data.



Note: GIS files are updated on a regular basis as new work is added or as old work is modified to current standards. The latest revisions to maps can be obtained through the Public Works Department located at 171 North Ross Street.

### B. Illicit Discharge Ordinance

The Environmental Protection Agency (EPA) recommends municipalities implement an ordinance that provides the means to identify and enforce correction of illicit discharges. In the City's NOI, submitted to ADEM in March 2003, the stated goal was to develop and implement an Illicit Discharge Ordinance by December 2005. This goal was met two years ahead of schedule.

A draft copy of the Illicit Discharge Ordinance was reviewed by the **ALOA** Citizens Advisory Committee in November of 2003. A revised draft was forwarded to the City Attorney and Municipal Judge for review in December 2003. The Auburn City Council adopted the Illicit Discharge Ordinance on January 20, 2004.



The City of Auburn has responded to several cases of illicit discharges over the past year. These cases involved illicit discharges of restaurant grease, pump station waste

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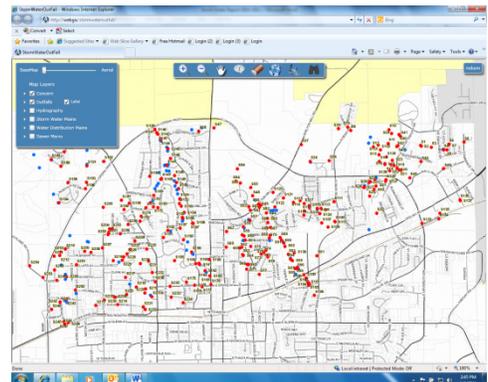
and grass clippings. In each instance, the illicit discharge was traced back to its source and the violator was given a warning and notified of the City's Illicit Discharge Ordinance. The proper officials were notified of the issue and proper clean-up was conducted.

### C. Stormwater Outfall Reconnaissance Inventory

In 2009, the Water Resource Management Department began a stormwater outfall reconnaissance inventory (ORI) program. The purpose of this ORI program is to walk each watershed (six total), conduct an inspection of each stormwater outfall and prepare detailed documentation of each stormwater outfall in that basin. City staff will be able to document any current illicit discharges and provide more detailed location information concerning existing outfalls. The City's ORI program is being patterned on recommendations outlined in the Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments (Center for Watershed Protection & Dr. Robert Pitt, October 2004). The City's goal is to inspect each watershed on a 5 - 6 year rotation. To date, the Department has inspected approximately thirty-three (33) miles of stream and documented 247 stormwater outfalls.



The Water Resource Management Department collaborated with the City's Information Technology (IT) Department GIS Division in 2010 to develop a stormwater outfall tracking tool that allows for easy management, access and viewing of data collected during the ORI program. Staff are currently utilizing this tool.



### D. Illicit Discharge Hotline & Reporting Form

In 2008, the Water Resource Management Department developed an illicit discharge reporting form that residents can download, complete and e-mail back to the Department upon discovering a potential illicit discharge. This document was placed on a newly-created Illicit Discharge Website, giving residents instant and 24-hour access to the form. This form assists the Department in tracking and responding to illicit

City of Auburn Illicit Discharge Notification Form	
Full Name _____	Last Name _____
Address _____	City _____ State _____ Zip Code _____
Phone No. _____	Email _____
Incident/Discharge Information	
Date Discharge Observed _____	Time Discharge Observed _____
Discharge Location _____	Reported Water Treatment _____
Reported Water Quantity (if known) _____	Address of Discharge _____
Description of Discharge	
What _____	How _____
Equipment _____	Other Notes/Comments _____
I hereby certify that the information provided on this form is true and correct to the best of my knowledge and belief. I understand that providing false information is a violation of the City of Auburn's policies and procedures.	

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discharges. This form can be downloaded from the City's website at <http://www.auburnalabama.org/wrm-watershed/>. No forms were submitted in 2010.

#### **E. Public Education on Illicit Discharges & Improper Disposal**

The Alabama Clean Water Partnership, in association with ADEM and other environmental groups, has produced a series of public service announcements featuring the "Nerdy Man". The City of Auburn has obtained materials for distribution from the Clean Water Partnership and provides them free to the public through its information centers located at City Hall, the Bailey-Alexander Water and Sewer Complex and the Development Services Building. These materials can also be obtained by contacting the Water Resource Management Department at (334) 501-3074. The City also routinely places articles in the City newsletter, Open Line, to educate citizens on illicit discharges.

#### **F. Inspection of Drainage System**

The Public Works Department conducts an annual inspection of its drainage system in order to maintain free flowing conditions. During this process, key stream sections, bridges, and culverts are inspected and routine maintenance is conducted. As areas are identified for maintenance, the work is listed on the maintenance schedule and a crew is assigned to perform the task. Water Resource Management staff are also documenting areas of concern during ORI inspections. These areas of concern are documented and placed in the stormwater outfall tracking database.



#### **G. Hazardous Waste Emergency Response Team**

The City has entered into an agreement with the City of Opelika to share some of the cost of operating an emergency response vehicle equipped to handle hazardous waste spills. The agreement provides the City with the ability to properly identify and address hazardous or potentially hazardous spills (see NOI submittal Appendix A).

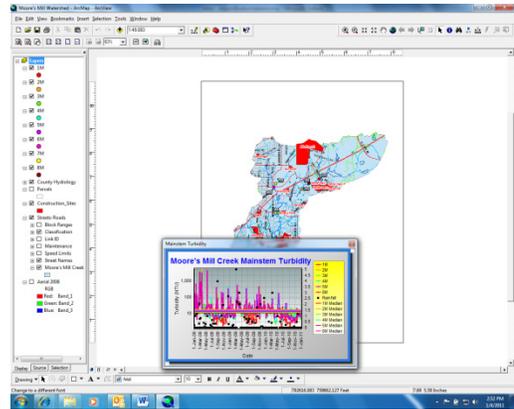
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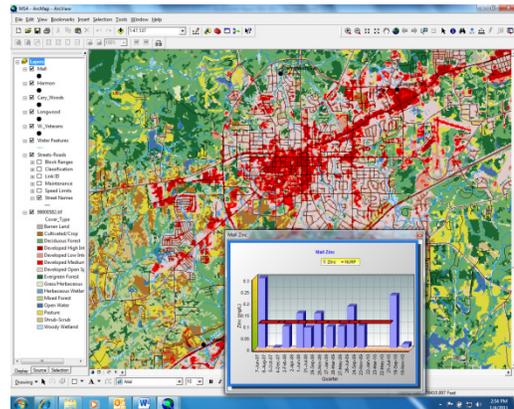
## H. Water Sampling Program

In 2004, the City of Auburn began a water-sampling program in an effort to analyze the effectiveness of stormwater best management practices (BMPs) on active construction sites within the City. This program has been significantly expanded over the past 6 years to include more in-depth water quality monitoring.

The City conducts weekly, monthly, and quarterly sampling for a wide variety of parameters that includes turbidity, dissolved oxygen, temperature, specific conductivity, total dissolved solids, pH, fecal coliform and salinity. Routine physical, physiochemical and bacteriological monitoring is conducted to document critical water quality trends within surrounding watersheds and also to locate potential sources of unauthorized pollution and contamination. Excessive pollutant loading can lead to loss of fish and wildlife habitat, loss of recreational use, human health hazards and higher water treatment costs. Both grab samples and real-time monitoring via two Hach Hydrolab multi-parameter probes have been incorporated into the sampling program.



In 2007, the City began a MS4 sampling program to analyze various pollutant parameters for varying land use categories in the City. Five sampling locations representing low-density residential, medium-density residential, high-density residential, commercial and industrial land uses are monitored on a quarterly basis.



In 2009, the City purchased five (5) Global Water composite samplers. These samplers were launched beginning in the fall of 2009 in sub-basins within the Saughatchee Creek watershed to evaluate total phosphorus concentration from stormwater runoff. These composite samplers will be used in the future as part of the City's stormwater Total Maximum Daily Load Implementation Plan to target "hot spot" areas for implementing stormwater BMPs to address total phosphorus.

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The City has developed a water quality website where residents and other interested parties can view reports of recent water quality data. The website address to view these reports is <http://www.auburnalabama.org/wrm-watershed/waterqual.aspx>. In 2008, the Water Resource Management Department, in conjunction with the City's IT Department, created a GIS database to track and trend all water quality data collected in-house and through outside sources.

In 2010, the City collected approximately 2,000 turbidity samples (40 routine sampling sites), performed 15 hydrolab launches, analyzed 10 MS4 first flush samples, and analyzed 17 composite samples. In addition to routine programs, the City also analyzed 70 samples for pathogens in the Parkerson's Mill Creek Watershed.

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## **IX. CONSTRUCTION SITE STORMWATER RUNOFF CONTROL**

### **A. Erosion and Sediment Control Ordinance**

The City, in conjunction with the City of Opelika and Auburn University, adopted the Erosion and Sediment Control Policy drafted by the ALOA Citizens Advisory Committee in 2003. The policy provides for a regional set of rules that can be applied to contractors, developers and engineers in the area.

The Auburn City Council approved additions to the City's Erosion and Sediment Control Ordinance in 2005 to establish protocol for enforcement of the Ordinance and to enable City personnel to issue citations to developers/contractors in violation of the Ordinance. The enforcement mechanisms have proven to be a valuable tool in ensuring compliance with the Ordinance.

### **B. Erosion Control Inspections**

The City, in an effort to patrol the management of erosion and sediment control measures on active construction sites, initiated a construction site inspection program in 2003. The inspection program is designed to identify deficiencies in erosion control and initiate corrective action. Approximately 345 site inspections were performed from March 2010 through March 2011. This is a decrease from the 600 inspections that were conducted the previous year. This decline in inspections is attributed to lower rainfall in 2010 as well a decline in development activity. In addition to the 345 inspections, 18 Notices of Violation (NOVs) were issued and 1 stop work order was issued. The City of Auburn revised its Erosion Control Checklist form in December 2004. The City's Water Resource Management Department maintains copies of the inspection reports in an electronic format.



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### **C. Erosion Control Residential**

The City's Public Safety Department Codes Enforcement Division conducts an initial site inspection for all building construction in Auburn. Lots requesting the initial inspection must have a construction entrance and other necessary best management practices (BMPs) in place prior to authorized foundation construction. Deficiencies noted during the initial inspection are relayed to the building permit applicant for correction.

The City's Public Safety Department Codes Enforcement Division also maintains a database of complaints received in association with erosion resulting from residential construction. The complaints are routed to enforcement officers or to Water Resource Management Department staff who investigate the complaint and pursue corrective actions with the responsible parties.

### **D. Added Elements to Erosion and Sediment Control**

In an effort to utilize the latest in erosion and sediment control technology, the City recommends that engineers consider the use of polyacrylamide (PAM) and other flocculants on certain developments within the City. PAM is essentially a soil stabilization BMP. Flocculants work to settle solids from turbid water and aid in stabilizing soils to support grass seed so that a suitable vegetative cover may be established. Flocculants can be applied through a hydraseeding application or in storm drains via "floc blocks". Flocculants, like PAM, are required on any development discharging directly to a receiving stream.

In conjunction with approval of the Water Resource Management Design Manual (discussed in Section X of report), the City changed the permitting process whereby erosion and sediment control BMPs are installed effective January 1, 2011. The City now issues an Erosion and Sediment Control Permit that allows for minimal clearing to install the approved BMPs onsite. This minimizes the clearing and grading work that sometimes occurred in the past prior to getting all of the site BMPs installed.

### **E. Sediment Basin Design**

The City revised its standard erosion and sediment control details in 2010 to include a more detailed sediment basin design. The Alabama Handbook was revised in 2009 to include significant changes in design guidelines for sediment basins. The primary changes revolve around the use of baffles during construction and Faircloth skimmers for basin



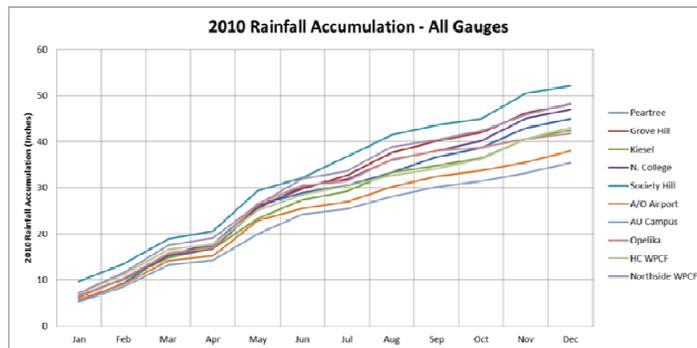
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dewatering. The City has implemented this change in its standard details, as well as in its requirements for new developments within the City.

## F. Rainfall Data Collection

In 2005, the City began maintaining historical rainfall data records. The data is obtained through a subscription to the Agricultural Weather Information System (AWIS) website. AWIS records daily weather data from the NOAA weather station at the Auburn-Opelika airport. The City collects the data on a routine basis and enters



it into an Excel spreadsheet, enabling the City to analyze rainfall patterns and trends. The City has AWIS data dating back to 1976. The City records daily rainfall data at its two water pollution control facilities. In addition, the Auburn Water Works Board also has rain gauges located at Lake

Ogletree and the James Estes Water Treatment Plant that provide daily rainfall records. In 2008, the City contracted with a local consultant to provide real-time rainfall data utilizing Doppler radar imagery at five predetermined locations selected by the City. This data provides additional rainfall data and provides staff with the ability to plan erosion and sediment control inspections more efficiently and analyze rainfall patterns across the City. In 2008, working in cooperation with the City's Information Technology Department, staff created a GIS rainfall distribution analysis tool that allows staff to map rainfall patterns across the City. This, in turn, allows staff to perform erosion and sediment control inspections more efficiently. There was a wide variability in rainfall reported across the City in 2010, from a low of 35.4 inches reported on the Auburn University campus to a high of 52.1 inches reported at Society Hill Road.

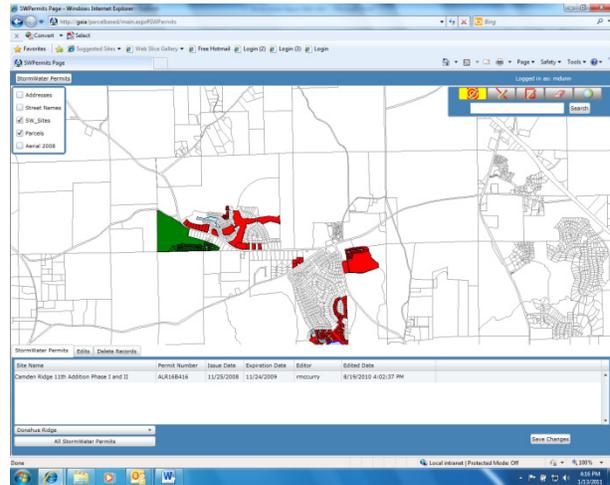


## G. ADEM Construction Stormwater Permit Tracking Tool

In 2010, the Water Resource Management Department worked with assistance from the City's Information Technology Department to create a GIS-based tool that allows tracking of ADEM construction stormwater permits for developments within the City of Auburn. The tracking tool generates automatic emails that are sent to staff on a bi-weekly basis with notifications of expired permits, permits that are within thirty (30) days of expiration and permits that are within sixty (60) days of expiration. This

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allows staff to track permits in an efficient manner and to send notifications to permit holders who have expired permits or permits nearing expiration.



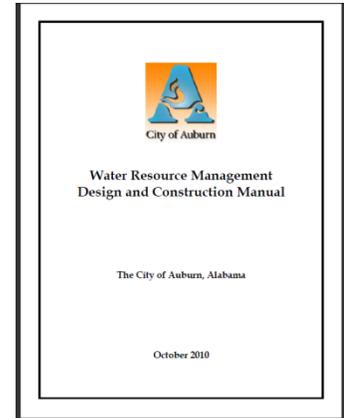
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## X. POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

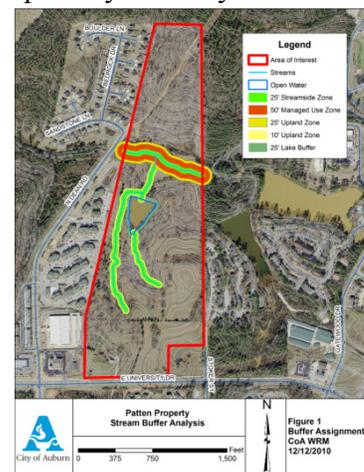
### A. Stormwater Management Manual and Engineering Design Manuals

In April 2003, the City of Auburn published a Stormwater Design Manual that effectively addressed stormwater runoff controls required for sites greater than one acre. The manual identified project requirements and specifications for new infrastructure and also addressed the requirement for stormwater system sizing and stormwater runoff control/detention. During the first eight years of implementation, the manual has proven to be a very successful tool for the City and developers. The Water Resource Management Department contracted with an engineering consulting firm to develop an Engineering Design Manual in 2008 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 Water Resource Management Design Manual also simplifies the City's regulations regarding restrictions on development in steep slope areas. The Public Works Department also developed a comprehensive Engineering Design Manual. The Stormwater Manual has been updated and included as an appendix in the Public Works Manual. Both the Public Works and Water Resource Management Design Manuals were adopted by the City Council in November 2010 and became effective as of January 1, 2011.



### B. Stream Buffer Regulations

As part of the Erosion and Sediment Control Ordinance adopted by the City Council in July 2002, a minimum 25-foot non-disturbed vegetative buffer zone was required for new developments on “blue line” streams and creeks identified on USGS 7.5 minute topographic maps. In May 2006, the City Council adopted new Stream Buffer regulations. The 2006 buffer regulations were based on a managed-use type buffer rather than a strict non-disturbed buffer approach. The 2006 regulations implement a 3-zoned buffer (streamside zone, managed use zone and upland zone) with the width of the buffer being based on the drainage area of the stream. A copy of the 2006 regulations can be found under Article IV in the City's Zoning Ordinance on the City's website. Approximately 500 - 565 acres of riparian



corridors were set aside in the first four years following the adoption of the new regulations. In 2010, the City evaluated stream buffers on twelve (12) properties, resulting in approximately twenty-nine (29) acres of riparian buffer protection.

<b>Stream Buffer Requirements</b>				
<b>Drainage Area (Watershed) Designation</b>	<b>Streamside Zone</b>	<b>Managed Use Zone</b>	<b>Upland Zone</b>	<b>Total Buffer Width on each side of Stream</b>
< 100 acres	25 feet	None	10 feet	35 feet
≥ 100 acres and ≤ 300 acres	25 feet	None	20 feet	45 feet
≥ 300 acres and ≤ 640 acres	25 feet	20 feet	10 feet	55 feet
≥ 640 acres	25 feet	50 feet	25 feet	100 feet

### **C. Detention Pond Inspections**

Existing detention ponds need periodic inspections to evaluate the maintenance and operation of these vital components of the City's drainage system. Because vast quantities of stormwater are collected and passed through these detention ponds every year, inspections of these facilities can identify potential problems and illicit discharges.



The Public Works Department and the Water Resource Management Department conduct annual inspections of all detention ponds (public and private) listed in the stormwater inventory. Upon inspection, the owner of the pond is notified of any corrective action needed. Enforcement measures are taken if the owner does not address the items listed in the report. Approximately two hundred sixty-three (263) detention ponds were inspected by the City in 2010.

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## D. Conservation Subdivision Regulations

In 2006, staff members from the Planning Department, Water Resource Management Department, Public Works Department and Parks and Recreation Department began developing conservation subdivision regulations to aid in the protection of local water resources. These regulations were approved by the Auburn City Council in 2007. The regulations promote water resource protection through the setting aside of open space and concentrating development away from water resources. The ordinance and subdivision regulations promote the use of low impact design concepts to protect natural resources in the Auburn area. These regulations can be downloaded from the City's website at <http://www.auburnalabama.org/pl/>. In 2010, a local developer began efforts to build the City's first conservation subdivision. A copy of the article from the City's newsletter, Open Line, highlighting this achievement can be seen above.

### Developer To Build City's First Conservation Subdivision

Auburn home buyers will soon have a new kind of lifestyle housing to choose from; one that takes unprecedented steps to conserve the environment. The developer of Lundy Chase subdivision plans to build Phase III of Lundy Chase that will meet criteria necessary to be zoned as a "conservation subdivision," the City's newest zoning category. In this category, a minimum of 50% of the acreage must be left as open-space in perpetuity. In 2007, the Auburn City Council approved the new zoning category to protect the Lake Ogletree watershed on the City's south side, zoning the area as a conservation district. However, the zoning ordinance also allowed for a conservation district to be zoned anywhere in the City.

Current estimates show that Lundy Chase, West will include 12 acres of open space for walking trails and greenways, all planned to be constructed by the developer. According to the City's Planning Director, the open space is planned to be donated to the City and maintained by the Parks and Recreation Department. "This is a good project that balances the desires of the City, Developer, and surrounding neighborhood," said Forrest Cotten, the City's Planning Director. The subdivision is in the process of being approved by the Auburn Planning Commission. For more information on conservation districts, please contact the Auburn Planning Department at 501-3040.

## E. Moore's Mill Creek Stream Restoration Project

Moore's Mill Creek, which is listed on the State's 303(d) list of impaired waterbodies for siltation (habitat alteration), is a perennial tributary of Chewacla Creek. Beginning in January 2007, a collaborative restoration effort began between ADEM, the Alabama Clean Water Partnership, Cleveland Brothers Construction, Inc., Wildlands, Inc. and the City of Auburn. The project was partially funded by an ADEM 319 Non-Point Source Program Grant, with the majority in-kind match provided by Cleveland Brothers Construction, Inc. Original estimates of the project deliverables included over 10,000 linear feet of stream restoration and/or stabilization, the development of a Moore's Mill Creek Watershed Management Plan, and the establishment of the Lee County Business Partners for Clean Water. However, unexpected financial hardships associated with the current economic recession, combined with frequent and heavy rains received throughout 2009, ultimately resulted in a moderate reduction of the extent of physical restoration.

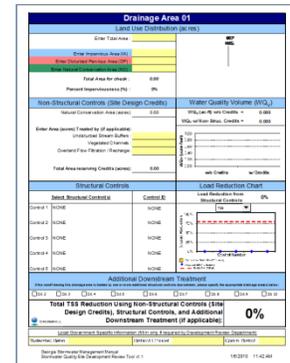


Regardless of these setbacks, over 60 percent of the total project was able to be completed by the end of 2010. This included the construction of eleven (11) rock vanes, five (5) log vanes, five (5) root wads, three (3) double-wing deflectors, one (1) single-wing deflector, one (1) rock j-hook vane, one (1) boulder cluster, one (1) rock cross vane, 2,492 linear feet of floodplain bench cut and 5,756 linear feet of restoration/stabilization. The remaining portions of the project may be completed in the future, as the original design proposed by Wildlands, Inc. allows for a phased implementation. Though it is impossible to directly attribute any marked improvements in water quality to the restoration efforts thus far, early turbidity data are encouraging that conditions are improving (City turbidity data, 2007-2010). This project has been one step, albeit a critical one, in the many efforts these stakeholder groups are utilizing to improve conditions in Moore's Mill Creek and to reestablish its capacity to sustainably meet State Water Criteria.

## F. Site Development Review Tool

In 2006, the Water Resource Management Department contracted with CH2M Hill to develop a Site Development Review Tool (Tool) that could be utilized by local engineers when designing stormwater BMPs on developments within the City. This Tool was modeled on a similar tool created by CH2M Hill for Gwinnett County, Georgia.

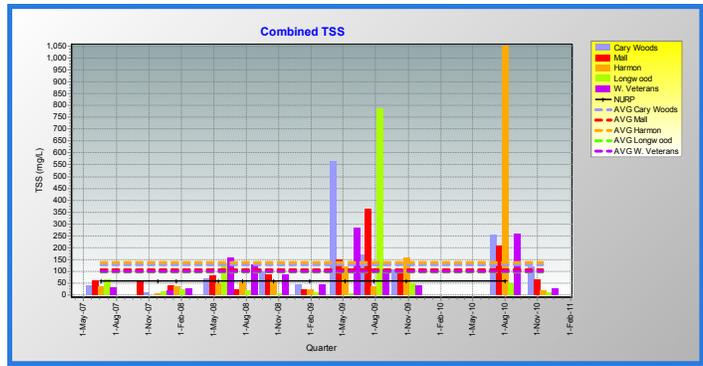
The Tool was developed using a Microsoft Excel platform and can be used by engineers and developers to design and incorporate structural stormwater BMPs for developments within Auburn's planning jurisdiction boundaries and to maximize the efficiency of runoff pollutant management following construction of developments. This Tool can also be used to meet the target pollutant removal efficiencies outlined in the City's Conservation Subdivision Regulations.



The Tool provides pollutant removal estimates for site specific conditions based on removal efficiencies for a variety of stormwater BMPs including detention ponds, bioretention areas (i.e. rain gardens) and stormwater wetlands. This Tool analyzes a variety of stormwater pollutants including nutrients (phosphorus and nitrogen) and total suspended solids. City staff utilizes the Tool during the plan review process to analyze development impacts on water quality within its water supply protection area (Lake Ogletree watershed). This Tool is also used by engineers when submitting water quality plans for developments located in the Saughatchee Creek Watershed. As part of its compliance with the total phosphorus TMDL for the Saughatchee Creek watershed, the City is requiring water quality plans for developments located in this watershed. A copy of the Tool can be downloaded at <http://www.auburnalabama.org/wrm-watershed>.

## G. MS4 Outfall Water Quality Monitoring

In 2007, the Water Resource Management Department initiated a program to evaluate and compare post-construction runoff water quality from various types of development. The types of development analyzed include low, medium and high density residential, commercial and industrial. Samples are collected each quarter during rainfall events and then delivered to a local lab to be analyzed for a variety of pollutants such as fecal coliform, suspended solids, nutrients and oils and grease. Staff attempt to collect “first flush” samples in an effort to obtain the most representative runoff samples. This data is used by Water Resource Management staff to develop trends, document illicit discharges and to make future decisions regarding post-construction stormwater BMPs. Due to the lack of significant rainfall in 2010, staff were only able to collect samples for the fall and winter quarters of 2010. In 2010, ten (10) first flush samples were collected and analyzed for a total of eighty (80) data points across eight (8) parameters. Interesting data trends are beginning to develop for certain land-use categories and certain parameters. For instance, higher total phosphorus values can be seen downstream of golf courses and some residential areas during the spring when fertilizer use begins to increase. Other data trends such as higher metal values (copper and zinc) downstream of commercial parking lots and automobile repair shops can also be seen.



## H. Composite Stormwater Sampling Program

In 2009, the Water Resource Management Department began a program to analyze total phosphorus (TP) concentration in stormwater runoff from sub-basins in the Saugahatchee Creek watershed. This program was initiated in an effort to begin collecting background TP concentration data in anticipation of monitoring requirements associated with the Saugahatchee Creek TP TMDL. Five (5) composite samplers were launched in 2010 in five (5) sub-basins in the Saugahatchee Creek watershed. Each sub-basin is characterized by a certain primary land use category. The samplers are triggered by rainfall and/or flow. The samplers are currently set to pull samples at a rate of 400 ml every 5 minutes, for a total of 1-gallon mixed composite in 45 minutes. The sampler is activated only after both rain (a minimum 3/4” rain event) and flow (wet) sensors are



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triggered and the samples are only collected if the qualifying event has been at least 72-hours after a previous rain event. In 2010, seventeen (17) composite samples were collected and analyzed. Long-term data collection will allow the City to target “hot spots” for stormwater BMPs for treatment of total phosphorus.

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## **XI. POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS**

### **A. Stormwater Management Training**

The City of Auburn continues to develop a training program that provides the Water Resource Management Department and other City departments with information on the proper methods for implementing site control measures on all municipal projects. City personnel also attend a variety of stormwater/water quality related conferences, workshops and seminars annually.

Training opportunities in 2010 included:

- **ADEM Nonpoint Source Conference (January 2010)** – This 1-day conference held in Montgomery, AL focused on nonpoint source stormwater management and associated best management practices. Two (2) City employees attended this conference.
- **Alabama’s Water Environment Association Annual Conference (April 2010)** – This 4-day conference sponsored by Alabama’s Water Environment Association, state membership association of the Water Environment Federation, focuses on stormwater, water quality, and wastewater treatment issues. Three (3) City personnel attended the 2010 conference, attending technical sessions as well as vendor exhibits.
- **Annual State of Our Watershed Conference (May 2010)** – This 2-day workshop held at Central Alabama Community College in Alexander City, AL focuses on the current state of the Tallapoosa River Basin watershed, of which the City of Auburn is a stakeholder. This past year’s conference focused on looking toward the future of the Tallapoosa River Basin. One (1) City employee attended this conference.
- **Stormwater Rate/Stormwater Utility Workshop (August 2010)** – This event, sponsored by the Alabama Cooperative Extension Service, and held at Auburn University, provided information on stormwater rate and stormwater utility structures across the southeastern United States. Two (2) City employees attended this workshop.
- **WEFTEC 2010 (October 2010)** – This 4-day conference, sponsored by the Water Environment Federation, is one of the premier water quality conferences in the world. This year’s conference was held in New Orleans, Louisiana. City personnel attended technical sessions related to watershed

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protection, water quality, stormwater BMPs and wastewater treatment. Two (2) City personnel attended this conference.

- **Erosion and Sediment Control Workshop (December 2010)** – The City of Auburn hosted a workshop for developers, contractors, and engineers to educate attendees on the City’s Erosion and Sediment Control Program, as well as federal and state regulations. Over eighty (80) developers, contractors, engineers, and City personnel attended the workshop.

## **B. Spill Response and Prevention Training**

The City of Auburn has developed an in-house spill response training program. The Water Resource Management Department sponsored its third annual Materials Handling and Spill Prevention Workshop in June 2010. This workshop targets City employees who deal with fuels and chemicals on a daily basis and provides basic information on the proper management, handling and disposal of potentially hazardous chemicals. Five (5) City personnel attended this workshop.

## **C. Risk Management Manual**

The City’s Human Resources Department has developed a manual outlining specific requirements/policies for dealing with hazardous chemicals. Topic 12 (titled Hazard Communication Program) of the City’s Risk Management Manual specifically requires City personnel to receive training on hazardous chemicals used. 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. The Hazard Communication Program was adopted as part of the Risk Management Manual.

## **D. Municipal Operations Recycling**

It has been standard policy to encourage individual Departments to participate in the City’s recycling program. Recyclable waste generated through City activities is collected and processed through the City’s recycling center located on Donahue Drive.



## **E. Street Sweeping**

Regular street sweeping has been proven as an effective means to reduce overall pollutant loading from roads and storm sewer systems. The Environmental Services Department of the City currently performs street sweeping measures on a monthly basis throughout numerous roadways within the City. One (1) mechanical and two (2) regenerative-air/vacuum sweepers are used to perform this service. Regular street

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sweeping measures such as these have been shown to reduce total phosphorus loading from roadways by 1.4 to 20 percent and total suspended solids by 4 to 45 percent, with variability seen in frequency of sweeping and machine type (Breault et. al., 2003). In 2010, the Environmental Services Department swept approximately 29,283 miles of streets within the City.

#### **F. Alabama Certified Pesticides Applicator**

The Parks and Recreation Department of the City maintains trained and certified personnel in the application of pesticides, including restricted-use pesticides. Although qualified to do so, the Parks and Recreation Department has not used any restricted-use pesticides in the previous decade. In order to maintain certification with the State of Alabama, the staff must document and complete 30 continuing education units (CEUs) over a three-year period. CEUs are earned at various conferences and workshops such as the Alabama Turfgrass Conference, Alabama Department of Transportation workshop, the Sports Turf Short Course and the Alabama Urban Forestry Association's Annual Conference. The CEUs cover the application of pesticides, information on the proper use of fertilizers and other chemicals typically used to maintain athletic fields, and best management practices for trees/shrubs/turf that are intended to reduced the need for pesticides, fertilizers and water.

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## **XII. STORMWATER INFRASTRUCTURE IMPROVEMENTS**

In 2010, the Public Works Department continued to make considerable progress toward installing, rehabilitating and upgrading stormwater infrastructure within the City of Auburn. A listing of projects completed in 2010, as well as projects under construction and design, is included below.

### **A. Stormwater Infrastructure Projects Completed**

Projects completed in permit year eight include:

- Wire Road Bridge Replacement – This project consisted of the installation of 1 area inlet, 1 junction box, 2 headwalls, 402 linear feet (LF) of 18-inch reinforced concrete pipe (RCP) and a new, wider bridge.
- Auburn Street Widening Project – This project consisted of the installation of 53 LF of 15-inch RCP, 5 LF of 24-inch RCP, 7 LF of 30-inch RCP and 8 LF of 36-inch x 23-inch RCP. This project also included the installation of 5 junction boxes, 13 single wing inlets and 2 double wing inlets.
- 2010 Cured-In-Place Pipe (CIPP) Lining Project – This project involved the CIPP lining of several deteriorated storm drain lines in the City.

### **B. Stormwater Infrastructure Projects Under Construction**

- North Donahue Drive Bridge Replacement – This project consists of the installation of 114 LF of 48-inch RCP, 111 LF of 36-inch RCP, 103 LF of 24-inch RCP, 56 LF of 18-inch RCP storm pipe and a new, wider bridge. An existing stormwater inlet is also being repaired as part of this project.

### **C. Stormwater Infrastructure Projects Under Design and/or Consideration**

- Opelika Road at Guthries – This project will involve the installation of 150 LF of 48-inch RCP, 170 LF of 30-inch RCP, 15 LF of 24-inch RCP, 40 LF of 18-inch RCP, 7 single wing inlets and 1 headwall.
- Darden Avenue Drainage Project – This project will consist of the installation of 124 LF of 36-inch RCP paralleling an existing 36-inch RCP for additional capacity. This project will also include constructing 2 headwalls and 2 double wing inlets.

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- East University Drive at Green Street Drainage Project – This project will consist of the installation of 34 LF of 18-inch RCP and 35 LF of 15-inch RCP. This project will also include the construction of 2 single wing inlets.
  - Wright Street Drainage Project – This project will involve the repair/replacement of 330 LF of 48-inch corrugated metal pipe that has become corroded and is now causing damage to an existing parking lot. A new stormwater junction box will be added as a part of this project's scope.
  - Glenn Avenue Improvements Project – This project will consist of the installation of 240 LF of 42-inch RCP, 453 LF of 36-inch RCP, 8 LF of 24-inch RCP, 72 LF of 18-inch RCP, 267 LF of 15-inch RCP, 41 LF of 36-inch x 22-inch RCP and 133 LF of 43-inch x 27-inch RCP. This project will also include constructing 9 single wing inlets, 4 double wing inlets and 3 junction boxes.
  - South College Street and Longleaf Drive Intersection Improvements – This project will involve removal of 2 existing stormwater inlets currently in the radius of an intersection and relocating them outside of the radius. The project will also involve the installation of approximately 40 LF of 18-inch RCP storm pipe.

#### **D. Sanitary Sewer Rehabilitation Projects**

In 2010, the Water Resource Management Department completed the 2009 Sanitary Sewer Rehabilitation Project which consisted of repairing aging sanitary sewer infrastructure within the City of Auburn using a cured-in-place pipe (CIPP) trenchless rehabilitation technology. The primary purpose of this project was to rehabilitate aging infrastructure, prevent sanitary sewer overflows (SSOs) and reduce inflow and infiltration (I/I). The City also completed a sewer system evaluation survey (SSES) of two (2) sewer basins in south Auburn to identify additional infrastructure needing to be rehabilitated. As a result of this SSES, the City is currently designing, and plans to start construction of, the Southside Sewer Interceptor Rehabilitation Project in 2011. The water quality of the City's local water resources can be improved through the City's efforts to target and reduce SSOs and excessive I/I.

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### **XIII. PROGRAM EVALUATION**

Now in its eighth permit year, the Stormwater Management Program for the City continues to have a positive impact on stormwater management in the City as evidenced by trends in stormwater quality data collected by the City and public awareness of the importance of stormwater management. The goals outlined in the City's Notice of Intent have been achieved at the end of this eighth permit year.

The City continues to have a strong construction stormwater management program that empowers staff to issue notices of violation, citations and/or stop work orders in cases where Best Management Practices (BMPs) are not implemented or if BMPs are deemed deficient. In 2010, the City conducted approximately 345 erosion and sediment control inspections, issued 18 72-hr NOV's and 1 stop work order. The City continues to strengthen its water quality sampling program to evaluate stormwater impacts on local water resources and to analyze the effectiveness of stormwater BMPs for construction and post-construction stormwater management. In 2010, the City analyzed 17 composite stormwater samples in an effort to collect background water quality data (primarily total phosphorus) associated with the Saugahatchee Watershed TMDL. The City continues to evaluate land use effects on post-construction stormwater quality through its MS4 stormwater sampling program. In 2010, the City collected 10 MS4 first flush samples for a total of 80 data points across 8 parameters. The City strengthened its Illicit Discharge Detection and Elimination Program in 2010 through continued implementation of the Outfall Reconnaissance Inventory (ORI) program. To date, approximately 33 miles of stream have been inspected and 247 stormwater outfalls have been documented through the ORI program. The City continues to work toward improving post-construction stormwater runoff through the implementation of the new Water Resource Management Design and Construction Manual as well as requirements for submitting stormwater quality plans for developments located in the Saugahatchee Creek Watershed. The City continues to invest in continuing public education and outreach and public involvement associated with the Stormwater Management Program through activities such as the storm drain marking program, Earth Day, Auburn CityFest, the Lee County Water Festival, the Rain Barrel program, SWaMP and education and outreach for the local schools in Auburn. In summary, the City has met or exceeded its goals for the 2010-2011 reporting year.

The overall evaluation of the eighth permit year has revealed several strengths and goals for the upcoming year.

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## A. Strengths

The strength of the City's Stormwater Management Program is primarily a result of the commitment and support of the Auburn City Council in protecting local natural resources as demonstrated in the formation of the Watershed Division to manage the stormwater program, increased enforcement of erosion and sediment control requirements and increased efforts and funding to evaluate stormwater quality. In addition, the City has staff that are committed to managing an efficient and leading-edge stormwater management program that is a positive reflection on the City. The City also works to actively engage local environmental groups, concerned citizens and the local development community in its stormwater management program through its public education, outreach and involvement programs.

Other strengths include:

- The Water Resource Management Department coordinates all of the water quality programs (water treatment and distribution, wastewater collection and treatment and stormwater quality management) for the City allowing for a more holistic watershed management program;
- The teamwork of the Water Resource Management Department Watershed Division, Public Works Department and Public Safety Department in the construction stormwater management program allows for timely erosion and sediment control inspections and enforcement as well as a more efficient response to noted concerns and/or citizen complaints;
- More efficient erosion and sediment control inspections through the use of the City's GIS Rainfall Interpolation Tool and rainfall data obtained through outside sources;
- More efficient tracking of ADEM construction stormwater NPDES permits through implementation of the City's newly developed Permit Tracking Tool;
- A well established and expanding water quality sampling program to evaluate stream conditions, construction and post-construction stormwater runoff, stormwater outfalls and to detect and eliminate illicit discharges;
- A thorough documentation of all existing stormwater outfalls, as well as potential illicit discharges, through continued implementation of the Outfall Reconnaissance Inventory (ORI) program;

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- The integration of water quality sampling data in to the City’s GIS database allows staff to track and trend all water quality data in an efficient manner and to make educated and technically sound decisions regarding any needed improvements;
  - Increased public awareness and involvement through activities and programs such as the storm drain marking program, the Lee County Water Festival, the Rain Barrel project, the FOG recycling program, SWaMP, Earth Day, and education and outreach for the local schools;
  - Proactive evaluation and timely response to water quality-related issues and citizen concerns regarding stormwater quality;
  - Increased public education and awareness through the publishing of monthly reports containing stormwater quality data on the City’s website.
  - The City is always willing to meet with other municipalites/government entities to share more about our stormwater management program. In 2010, the City hosted officials from Birmingham who were interested in learning more about our program.
  - In January 2011, the Water Resource Management Department added a new collection system technician to expand our Fats, Oils and Greases (FOG) program as a further effort to reduce SSOs and protect local water resources.

## **B. Goals for the Upcoming Year**

The City of Auburn takes pride in its Stormwater Management Program and feels as though the efforts that have been made over the past eight years have created a strong, viable and long-lasting program for the City that will have positive impacts on the City’s natural resources. As the City strives to make its program even better, several program goals have been identified for the upcoming year by City personnel.

These goals include:

- Updating the stormwater management program to comply with the new Phase II Stormwater Permit that was issued by ADEM effective February 1, 2011;
- Increasing public education and awareness through additional storm drain marking activities and other education and outreach initiatives;

- 
- Continuing the Outfall Reconnaissance Inventory Program to identify and inspect stormwater outfalls in the City of Auburn;
  - Continuing implementation of a database to track and manage construction site ADEM permits;
  - Continuing a baseline catchment water quality monitoring program associated with the Saugahatchee TMDL; and,
  - Beginning implementation of the stormwater water quality best management practices outlined in the recently adopted Water Resource Management Design and Construction Manual.

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**APPENDIX A**

**ALABAMA NOTICE OF INTENT (ALNOI)**

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City of Auburn

**Alabama Notice of Intent (ALNOI)**

General permit for Phase II Small Municipal Separate Storm Sewer Systems (MS4)

March 2008

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STATE OF ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

**ALABAMA NOTICE OF INTENT (ALNOI)**

General Permit for Phase II Small Municipal Separate Storm Sewer Systems (MS4)

I. **General Information:**

A. Ownership Status (Please check one):

- Small Municipal Separate Storm Sewer System  
 Federal Facility  
 State Facility

B. Name of Small MS4: **The City of Auburn**

C. Name of Responsible Official: **Charles M. Duggan, Jr.**

Title: **City Manager**

Mailing Address: **144 Tichenor Avenue**

City: **Auburn** State: **AL** Zip Code: **36832**

Telephone Number: **(334) 501 - 7260**

D. Designated storm water management program contact:

Name: **Matt Dunn**

Title: **Watershed Division Manager**

Mailing Address: **1501 West Samford Avenue**

City: **Auburn** State: **AL** Zip Code: **36832**

Telephone Number: **(334) 501 - 3060**

Email Address: **mdunn@auburnalabama.org**

II. **Location/Boundaries:**

A. Location:

1. Name of Urbanized Area or municipality where your MS4 is located:

**Auburn, AL**

2. Name of your

Organization: **City of Auburn, Alabama**

3. The latitude and longitude of the approximate center of your MS4:

Latitude **764440.25**

Longitude **766458.96**

**Note:** *Approximate center of MS4 is the intersection of Magnolia Avenue and College Street. Latitude and Longitude are in State Plane Coordinate System.*

4. All entities except counties must include a location map showing city, town, or district boundaries, and urbanized area (UA) boundaries, if part(s) of the MS4 is within a UA.

**See Appendix G**

5. Counties must include a map showing county boundaries, unincorporated area boundaries within the county, and urbanized (UA) boundaries.

**III. Known or Suspected Water Quality Problems:**

- A. The names(s) of the receiving water to which your MS4 discharges (attach a separate list if necessary):

**The City of Auburn has storm water discharges into the Saugahatchee Creek Watershed (North), the Moores Mill Creek Watershed (Southeast), the Chewacla Creek Watershed (South) and the Parkersons Mill Creek Watershed (Southwest).**

- B. Indicate any receiving water stream segments to which your MS4 discharges, which are included on the 303(d) list:

**Moores Mill Creek was initially placed on the draft 303(d) list in 1998 and was listed on the final 2002 and 2004 303 (d) list and the draft 2006 303(d) list. The Saugahatchee Creek Embayment where Saugahatchee Creek discharges into Yates Lake was placed on the State's 303(d) list in 1996, 1998, 2000, 2002, and 2004 and is currently on the draft 2006 list.**

- C. Describe any known or suspected water quality concerns within your jurisdictional area (e.g. stream siltation, 303(d) listed streams, habitat degradation, elevated levels of pollutants, etc.), including location (attach additional page(s) if necessary):

**Known water quality concerns within the jurisdictional area include stream siltation from sedimentation deriving from land disturbance (Moores Mill Creek and Saugahatchee Creek Embayment) and nutrient enrichment (Saugahatchee Creek Embayment).**

**IV. Sharing Responsibility**

- A. Has another entity agreed to implement a control measure on your behalf?  
Yes  No (if no, Skip to Part III)

**Control Measure #1: Hazardous Waste Emergency Response Team**

1. Name of entity: **City of Opelika, Alabama and Lee County, Alabama**

2. Control measure or component of control measure to be implemented by entity on your behalf:

**The City of Auburn has entered into an agreement with the City of Opelika and Lee County to share some of the cost of operating an emergency response vehicle equipped to handle hazardous waste spills. The agreement provides the City of Auburn with the ability to properly identify and address hazardous or potentially hazardous spills (see 2003 NOI for copy of agreement).**

- B. Attach an additional page if necessary to list additional shared responsibilities.

**It is mandatory that you submit a copy of a written agreement between your MS4 and the other entity demonstrating written acceptance of responsibility. (See copy of agreement in original NOI.)**

**V. Minimum Control Measures:**

- A. Public Education and Outreach – (complete Appendix A)
- B. Public Involvement/Participation – (complete Appendix B)
- C. Illicit Discharge Detection and Elimination – (complete Appendix C)
- D. Construction Site Storm Water Runoff Control – (refer to Appendix D)
- E. Post-construction Storm Water Management in New Development and Redevelopment – (complete Appendix E)
- F. Pollution Prevention/Good Housekeeping – (complete Appendix F)

**VI. Certification Statement**

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

Printed Name: \_\_\_\_\_ Date \_\_\_\_\_

Signature: \_\_\_\_\_ Title \_\_\_\_\_

## Appendix A

### Public Education and Outreach on Storm Water Impacts

40 CFR Part 122.34(b)(1) Requirement: You must implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff.

**A. Best Management Practice (BMP) # 1: Messages/Articles in the City of Auburn's monthly Newsletter, "Open Line", distributed to all residents who receive a water bill**

1. Known or suspected problem/existing pollutant source to be addressed by BMP: **Storm Water Runoff; Illicit Discharges**
2. Target audience: **Citizens/Residents**
3. Description of BMP: **Messages/Articles in the City Newsletter "Open Line"**
4. Measurable Goal(s): **Two Messages/Articles per year for duration of permit period**
5. Schedule:
  - a. Interim Milestone Dates (if applicable)
  - b. Implementation Date: **2008**
  - c. Frequency of actions: **Bi-annual**
  - d. Month/Year of each action (if applicable)
6. Person (position) responsible for overall management and implementation of the BMP: **Matt Dunn /Water Resource Management Department**
7. Rational for selecting this BMP:

**"Open Line" is the City's newsletter that is distributed in the monthly water, sewer and garbage collection bill. No other publication is as widely read within the City Limits and an article or message in this document will reach the most diverse group of citizens/residents.**

**B. Best Management Practice (BMP) # 2: Pamphlets/Brochures**

1. Known or suspected problem/existing pollutant source to be addressed by BMP: ***Storm Water Runoff/Quality***
2. Target audience: ***Residents, Contractors, Developers, and Engineers***
3. Description of BMP: ***Pamphlets and Brochures***
4. Measurable Goal(s): ***Develop, Produce, and Distribute two Pamphlets/Brochures per year for duration of Permit Period***
5. Schedule:
  - a. Interim Milestone Dates (if applicable)
  - b. Implementation Date: ***2008***
  - c. Frequency of actions: ***Bi-annual***
  - d. Month/Year of each action (if applicable)
6. Person (position) responsible for overall management and implementation of the BMP: ***Matt Dunn /Water Resource Management Department***
7. Rational for selecting this BMP:

***Pamphlets and brochures are an effective way to present and explain a storm water message. Unlike other communication tools, pamphlets and brochures can be distributed in many places without requiring additional staffing with the choice of distribution location specifically targeting the audience you are trying to reach.***

**C. Best Management Practice (BMP) # 3: Internet Web Page**

1. Known or suspected problem/existing pollutant source to be addressed by BMP: ***Storm Water Construction Runoff/Storm Water Quality***
2. Target audience: ***Community***
3. Description of BMP: ***Municipal Web Page***
4. Measurable Goal(s): ***Develop and post web page containing storm water information and links. (Completed in first permit cycle). Continue to make improvements to the City's Storm Water Website such as posting of water quality data.***
5. Schedule:
  - a. Interim Milestone Dates: ***Develop Web Page 2003***
  - b. Implementation Date: ***Post Web Page 2004***
  - c. Frequency of actions: (if applicable)
  - d. Month/Year of each action (if applicable)
6. Person (position) responsible for overall management and implementation of the BMP: ***Matt Dunn/Water Resource Management Department***
7. Rational for selecting this BMP:

***The City's web page is a place where citizens often go to obtain information on local events. A section of the web page can be modified to target various audiences (contractors, engineers, local interest groups, etc.). It also allows the City to link to existing web sites (i.e. ADEM and EPA) for the latest educational information provided by these agencies for our use. Information that can be found on the City's Phase II Website includes:***

- ***A copy of the City's annual Phase II Storm Water Report***
- ***A copy of the City's Storm Water Design Manual***
- ***A link to the City's Site Development Review Tool***
- ***Local Watershed Maps***
- ***Links of Interest***

## Appendix B

### Public Involvement/Participation

40 CFR Part 122.34(b)(2) Requirement: You must, at a minimum, comply with State, Tribal, and local public notice requirements when implementing a public involvement/participation program.

**A. Best Management Practice (BMP) # 1: Formation of a Citizens Advisory Committee**

1. Known or suspected problem/existing pollutant source to be addressed by BMP: ***Storm Water Runoff/Quality***
2. Target audience: ***Community***
3. Description of BMP: ***Formation of a Citizens Advisory Committee***
4. Measurable Goal(s): ***Organize a regional Citizens Advisory Committee representing various segments of the community to offer recommendations to facilitate implementation of the Storm Water Management Program. Regional representatives include the City of Auburn, Lee County, City of Opelika, and Auburn University (ALOA).***
5. Schedule:
  - a. Interim Milestone Dates (if applicable)
  - b. Implementation Date: ***The ALOA Citizens Advisory Committee was organized in 2001. It is comprised of various segments of the community including local environmental interest groups.***
  - c. Frequency of actions: ***The ALOA Citizens Advisory Committee meets on a quarterly basis.***
  - d. Month/Year of each action: ***The ALOA Citizens Advisory Committee is scheduled to meet on a quarterly basis for the duration of the permit period (5 years).***
6. Person (position) responsible for overall management and implementation of the BMP: ***All members of ALOA (City of Auburn, Lee County, City of Opelika, and Auburn University) are committed to fostering and maintaining the organization.***
7. Rational for selecting this BMP:  
***EPA and ADEM recommend that the public be included in developing, implementing, and reviewing storm water management***

**programs. This committee allows individuals to participate in the discussions regarding program implementation. The committee also has direct input into policy implementation for regional storm water issues.**

**B. Best Management Practice (BMP) # 2: Watershed Organization “Lower Tallapoosa River Basin/Clean Water Partnership”**

1. Known or suspected problem/existing pollutant source to be addressed by BMP: **Storm Water Runoff/ Quality**
2. Target audience: **Community**
3. Description of BMP: **The partnership is part of a state-wide river basin management initiative to link local basin management efforts in order to maximize resources, to develop comprehensive management plans, and to involve citizens in watershed protection.**
4. Measurable Goal(s): **Coordinate with the Clean Water Partnership to develop a watershed management plan. Work with the Clean Water Partnership's and ADEM's Education/Outreach initiative to improve awareness of water quality issues.**
5. Schedule:
  - a. Interim Milestone Dates (if applicable)
  - b. Implementation Date: **The City of Auburn is currently a participant on the Lower Tallapoosa Clean Water Partnership and the Tallapoosa Steering Committee.**
  - c. Frequency of actions: **Meetings are held on a quarterly basis.**
  - d. Month/Year of each action (if applicable)
6. Person (position) responsible for overall management and implementation of the BMP: **Matt Dunn/Water Resource Management Department**
7. Rational for selecting this BMP:

**The Partnership brings together representatives from area utilities, private industries, environmental groups, farmers, and branches of government to coordinate their individual efforts, share information, and plan for water resource and aquatic life protection. This organization allows for the group to maximize resources available and to involve the public in protecting the environment.**

## Appendix C

### Illicit Discharge Detection and Elimination

40 CFR Part 122.34(b)(3) Requirement: You must develop, implement and enforce a program to detect and eliminate illicit discharges into your small MS4. You must:

- A). Develop, if not already completed, a storm sewer system map, showing the location of all outfalls and the names and location of all waters of the state that receive discharges from those outfalls;
- B). Effectively prohibit, through ordinance, or other regulatory mechanism, non-storm water discharges into your storm sewer system and implement appropriate enforcement procedures and actions;
- C). Develop and implement a plan to detect and address non-storm water discharges, including illegal dumping, to your system; and
- D). Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.

#### **A. Storm Sewer Map**

- 1. Does the MS4 have a completed storm sewer map showing the location of all outfalls and the names and locations of all waters of the State that receive discharges from those outfalls? Yes  No
- 2. If yes submit storm sewer system map as an addendum to this form **(Map Book submitted to ADEM in July 2006)**.
- 3. If the storm sewer system map must be developed, provide a schedule for completion (e.g. 30% of system to be mapped each year):

Task

Interim Date

Final completion date/ date for submittal to ADEM (No later than December 9, 2006): **(Map Book submitted to ADEM July 19, 2006)**

#### **B. Ordinance/Regulatory Mechanism Evaluation:**

- 1. Does the MS4 have an ordinance or regulatory mechanism that effectively prohibits illicit discharges? Yes  No

If yes, submit a copy as an addendum to this form. **See Appendix I**

2. If an evaluation of the ordinance/regulatory mechanism must be completed, or the MS4 is aware that the ordinance/regulatory mechanism will require revision, then a schedule for development of the document should be provided:

Task

Interim Date

Final completion date/ date for submittal to ADEM (No later than December 9, 2006): **Illicit Discharge Ordinance approved by Auburn City Council on January 20, 2004**

**C. Best Management Practice (BMP) # 1: Public Education on Illicit Discharges & Improper Disposal**

1. Known or suspected problem/existing pollutant source to be addressed by BMP: **Storm Water Discharges**
2. Target audience: Citizens
3. Description of BMP: **The Clean Water Partnership in association with ADEM and other environmental groups have produced a series of public service announcements featuring the "Nerdy Man". These spots inform the public of the do's and don'ts of proper disposal of potential storm water pollutants.**
4. Measurable Goal(s): **Coordinate with Clean Water Partnership to obtain public service announcements and videos (e.g. "The Nerdy Man" videos) for public use locally.**
5. Schedule:
  - a. Interim Milestone Dates (if applicable)
  - b. Implementation Date: **Dec 2003**
  - c. Frequency of actions: **Provide public access to information and materials year round**
  - d. Month/Year of each action (if applicable)

6. Person (position) responsible for overall management and implementation of the BMP: ***Matt Dunn/Water Resource Management Department***

7. Rational for selecting this BMP:

***The Clean Water Partnership provides the videos and training materials in an effort to educate the public. Use of the videos and other materials allows the City to provide education that could prevent an illicit discharge ( like proper public disposal of oil). The materials have been produced through the assistance of various environmental agencies and are geared toward the general public.***

**D. Best Management Practice (BMP) # 2: Inspection of Drainage System**

1. Known or suspected problem/existing pollutant source to be addressed by BMP: ***Storm Water Runoff/Quality***

2. Target audience: ***Public Works/Water Resource Management***

3. Description of BMP: ***Inspect drainage system and outfalls***

4. Measurable Goal(s): ***Inspect drainage system and outfalls prior to start of rainy season. Document illicit discharges uncovered during inspections and schedule for remediation.***

5. Schedule:

a. Interim Milestone Dates (if applicable)

b. Implementation Date: ***December 2001***

c. Frequency of actions: ***Annually***

d. Month/Year of each action: ***November - February***

6. Person (position) responsible for overall management and implementation of the BMP: ***Robert Smith/ Public Works Department; Matt Dunn/Water Resource Management Department***

7. Rational for selecting this BMP:

***Annual inspections of the City's drainage system are conducted in order to maintain free flowing conditions. During this process, key stream sections, bridges, and culverts are inspected and routine maintenance is conducted. Routine maintenance includes repair of the structure and/or removing***

*litter and debris that has accumulated over the preceding year. The removal and inspection of debris from these catch points can provide the City with valuable information locating, premeditating, and eliminating illicit discharges.*

**Note: The MS4 is not limited to implementing only 2 BMPs for each minimum control measure. If additional BMPs are chosen, then you should attach additional sheets as needed.**

## Appendix D

### Construction Site Storm Water Runoff Control

ADEM Admin. Code Ch. 335-6-12 implements a State-wide construction storm water regulatory program consistent with NPDES requirements for construction activities. As provided by 40 CFR Part 122.35(b), this NOI does not require a MS4 to implement a local construction storm water control program.

*The City of Auburn in conjunction with the City of Opelika, Auburn University and Lee County has adopted the Erosion and Sediment Control Policy recommended to it by the Citizens Advisory Committee (ALOA). This regional policy was adopted as an Ordinance by the Auburn City Council in July 2002. In December 2004, the Auburn City Council approved additions to the Ordinance to establish protocol for the enforcement of the ordinance and to enable City personnel to issue citations to developers/contractors in violation of the ordinance. (See Appendix H).*

## Appendix E

### Post-construction Storm Water Management in New Development and Redevelopment

40 CFR Part 122.34(b)(5) Requirement: You must develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into your small MS4. You must:

- A). Develop and implement strategies which include a combination of structural and/or non-structural BMPs appropriate for you community.
- B). Use an ordinance or other regulatory mechanism to address post construction runoff from new development or redevelopment projects; and
- C). Ensure adequate long-term operation and maintenance of BMPs.

#### **A. Ordinance Evaluation**

1. Does the MS4 have an ordinance that effectively controls runoff from new development or redevelopment construction site?

Yes   X              No   

If yes, submit a copy as an addendum to this form.

***The City of Auburn has developed an Engineering Design Manual that effectively addresses storm water runoff controls required for sites greater than one acre. The manual specifically addresses the requirement for storm water system sizing and storm water runoff control/detention (see original 2003 NOI for copy of Manual)***

2. If an evaluation of the ordinance must be completed, or the MS4 is aware that the ordinance will require revision, then a schedule for development of the document should be provided:

<u>Task</u>	<u>Interim Date</u>
_____	_____
_____	_____
_____	_____

Final completion date/ date for submittal to ADEM (No later than December 9, 2006): **Design Manual published April 2003**

**B. Best Management Practice (BMP) #1: Buffer Zone**

1. Known or suspected problem/existing pollutant source to be addressed by BMP: **Storm Water Runoff/Quality**
2. Target audience: **Citizens**
3. Description of BMP: **Managed-use type stream buffer, consisting of 3 zones with the buffer width being based on the drainage area of the stream. Buffer widths range from 35 feet to 100 feet.**
4. Measurable Goal(s): **Require new developments to provide buffer zones to protect perennial, intermittent and ephemeral streams and creeks identified on USGS 7.5 minute topographic maps, the City's GIS, or by site inspection.**
5. Schedule:
  - a. Interim Milestone Dates (if applicable)
  - b. Implementation Date: **May 2006**
  - c. Frequency of actions (if applicable)
  - d. Month/Year of each action (if applicable)
6. Person (position) responsible for overall management and implementation of the BMP: **City of Auburn Planning Commission; Water Resource Management Department**
7. Rational for selecting this BMP:

**Buffer zones provide for stream bank protection and water quality protection by restricting the type of land disturbance in and around streams. The purpose of stream side buffer zones is to provide vegetated zones where pollutants are removed from runoff and habitat is protected.**

C. **Best Management Practice (BMP) # 2: Detention Pond Inspection**

1. Known or suspected problem/existing pollutant source to be addressed by BMP: ***Storm Water Runoff/Quality***
2. Target audience: ***Private and Public Detention Pond Owners***
3. Description of BMP: ***Annual inspections of exiting detention ponds***
4. Measurable Goal(s): ***Inspect private and public storm water detention ponds annually***
5. Schedule:
  - a. Interim Milestone Dates (if applicable)
  - b. Implementation Date: ***1997***
  - c. Frequency of actions: ***Annually***
  - d. Month/Year of each action: (if applicable)
6. Person (position) responsible for overall management and implementation of the BMP: ***David Ponder/Public Works Department and Matt Dunn/Water Resource Management Department***
7. Rational for selecting this BMP:

***Existing detention ponds need periodic inspections to maintain proper operation. Upon inspection, the owner of the pond is notified of corrective action needed. Because vast quantities of storm water are passed through these detention ponds every year, regular inspections identify potential problems to ensure the facilities operate efficiently to control storm water flow and maximize the removal of pollutants.***

## Appendix F

### Pollution Prevention/Good Housekeeping for Municipal Operations

40 CFR Part 122.34(b)(6) Requirement: You must develop and implement an operation and maintenance program that includes training components and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.

#### A. Best Management Practice (BMP) # 1: Construction Site Management Training

1. Known or suspected problem/existing pollutant source to be addressed by BMP: **Storm Water Runoff/Quality**
2. Target audience: **Water Resource Management and Public Works Employees**
3. Description of BMP: **Construction Site Management Training**
4. Measurable Goal(s): **Develop and implement training that provides the Water Resource Management Department and the Public Works Department guidance on how to implement site control measures on all municipal projects.**
5. Schedule:
  - a. Interim Milestone Dates (if applicable)
  - b. Implementation Date: **2003**
  - c. Frequency of actions: **Annual**
  - d. Month/Year of each action (if applicable)
6. Person (position) responsible for overall management and implementation of the BMP: **Matt Dunn/Water Resource Management Department**
7. Rational for selecting this BMP:

**Providing training to employees will allow the City to better control runoff from municipal construction project sites. Training of construction design personnel will help to develop the skills necessary to choose and implement the most effective construction site Best Management Practices (BMPs).**

**B. Best Management Practice (BMP) # 2: Spill Response and Prevention Training**

1. Known or suspected problem/existing pollutant source to be addressed by BMP: **Storm Water Runoff/Quality**
2. Target audience: **City Employees**
3. Description of BMP: **Provide training to City employees for spill response and prevention**
4. Measurable Goal(s): **Develop and implement training program targeted at spill response and prevention**
5. Schedule:
  - a. Interim Milestone Dates (if applicable)
  - b. Implementation Date: **2007**
  - c. Frequency of actions: **Annual training starting in 2008**
  - d. Month/Year of each action:
6. Person (position) responsible for overall management and implementation of the BMP: **Matt Dunn/Water Resource Management Department**
7. Rational for selecting this BMP:

***Spill prevention training is targeted at City employees involved in the day-to-day operations of field equipment. It will have the most impact when it comes to preventing and controlling spills of non-hazardous materials. Hazardous materials will be addressed through our agreement with the City of Opelika and Lee County.***

Notes:

For the BMP used to describe the required training component of the O&M program, you should provide the name of the target audience(s). One targeted audience must be the MS4 employees.

The MS4 is not limited to implementing only 2 BMPs for each minimum control measure. If additional BMPs are chosen, then you should attach additional sheets as needed.

**Appendix G**

**City of Auburn Location Map**

**Appendix H**

**Erosion and Sediment Control Ordinance and Standard Operating  
Procedures**

**Appendix I**

**City of Auburn Illicit Discharge Ordinance**

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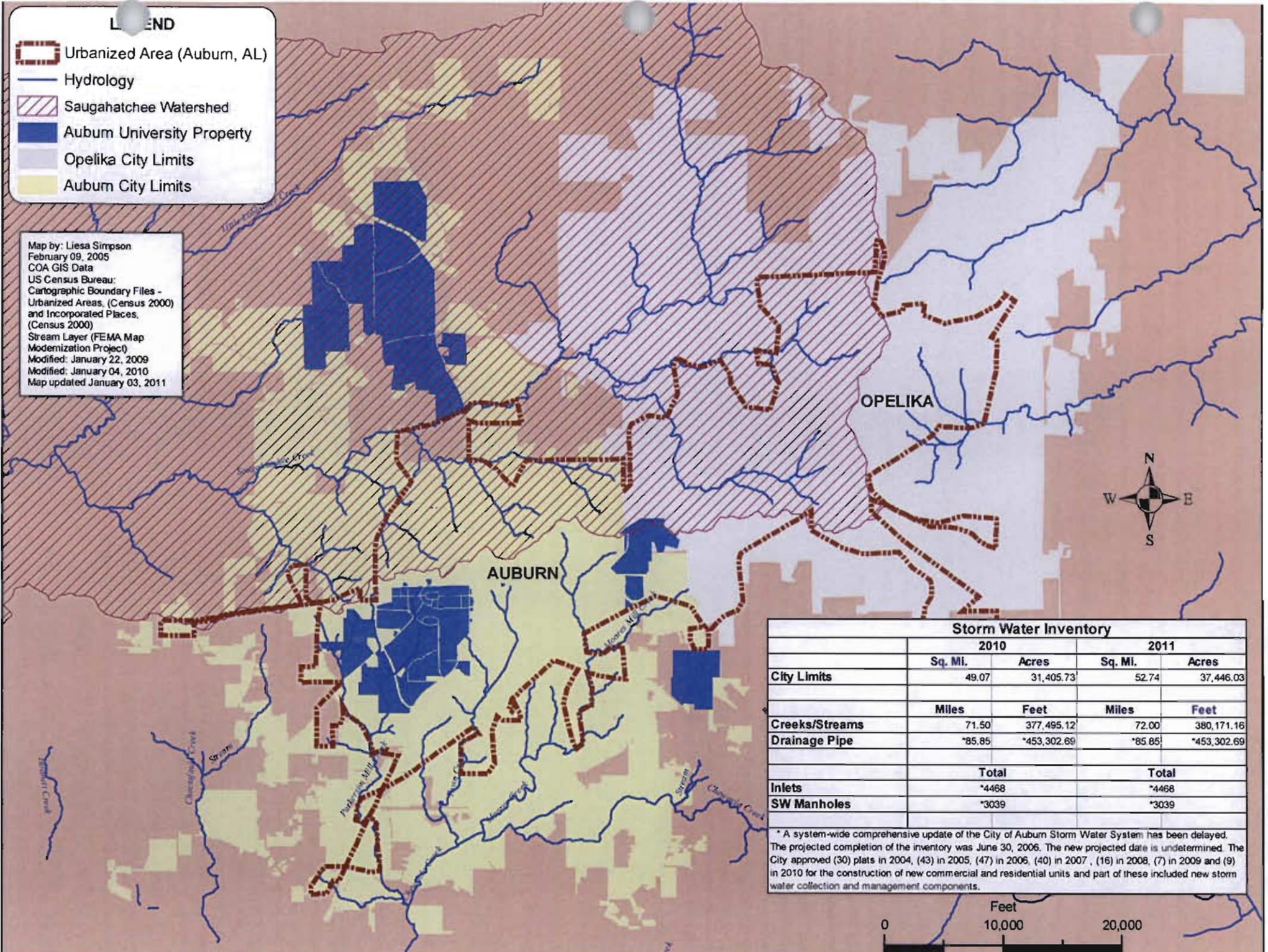
## **APPENDIX B**

### **URBANIZED AREA MAP**

**LEGEND**

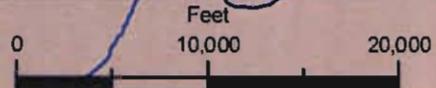
-  Urbanized Area (Auburn, AL)
-  Hydrology
-  Saugahatchee Watershed
-  Auburn University Property
-  Opelika City Limits
-  Auburn City Limits

Map by: Liesa Simpson  
 February 09, 2005  
 COA GIS Data  
 US Census Bureau:  
 Cartographic Boundary Files -  
 Urbanized Areas, (Census 2000)  
 and Incorporated Places,  
 (Census 2000)  
 Stream Layer (FEMA Map  
 Modernization Project)  
 Modified: January 22, 2009  
 Modified: January 04, 2010  
 Map updated January 03, 2011



Storm Water Inventory				
	2010		2011	
	Sq. Mi.	Acres	Sq. Mi.	Acres
<b>City Limits</b>	49.07	31,405.73	52.74	37,446.03
	<b>Miles</b>	<b>Feet</b>	<b>Miles</b>	<b>Feet</b>
<b>Creeks/Streams</b>	71.50	377,495.12	72.00	380,171.16
<b>Drainage Pipe</b>	*85.85	*453,302.69	*85.85	*453,302.69
	<b>Total</b>		<b>Total</b>	
<b>Inlets</b>	*4468		*4468	
<b>SW Manholes</b>	*3039		*3039	

\* A system-wide comprehensive update of the City of Auburn Storm Water System has been delayed. The projected completion of the inventory was June 30, 2006. The new projected date is undetermined. The City approved (30) plats in 2004, (43) in 2005, (47) in 2006, (40) in 2007, (16) in 2008, (7) in 2009 and (9) in 2010 for the construction of new commercial and residential units and part of these included new storm water collection and management components.



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## **APPENDIX C**

### **NEWSPAPER PUBLICATIONS LISTING**

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## *News Paper Publications*

<i>Publication Date by Month</i>	<i>Publication Date</i>	<i>Title</i>	<i>Editorial</i>	<i>Publication Source</i>
<i>February 2003</i>				
	2/5/2003	AUBURN PLANS HOUSEHOLD WASTE COLLECTION DAY	<input type="checkbox"/>	Opelika-Auburn News
	2/6/2003	EPA RECOGNIZES WORK OF AU-BASED ALABAMA WATER WATCH	<input type="checkbox"/>	Opelika-Auburn News
	2/6/2003	LET'S DUMP THOSE CHEMICALS	<input checked="" type="checkbox"/>	Opelika-Auburn News
	2/21/2003	OPELIKA TO HOLD ANNUAL ARBOR DAY CELEBRATIONS	<input type="checkbox"/>	Opelika-Auburn News
	2/21/2003	AUBURN TO HAND OUT TREES SATURDAY	<input type="checkbox"/>	Opelika-Auburn News
<i>March 2003</i>				
	3/5/2003	ADEM REFORMS IMPACT PRESENT AND FUTURE ENVIRONMENT	<input checked="" type="checkbox"/>	Opelika-Auburn News
	3/6/2003	S.O.S ENVIRONMENTAL GROUP AIMS TO CLEAN UP CREEK	<input type="checkbox"/>	Opelika-Auburn News
	3/6/2003	CONSERVATION EASEMENT A GOOD GROWTH ALTERNATIVE FOR AREA	<input checked="" type="checkbox"/>	Opelika-Auburn News
	3/9/2003	VOLUNTEER MOVEMENT CLEANS UP CREEKSIDE	<input type="checkbox"/>	Opelika-Auburn News
	3/9/2003	GARBAGE WAR ROLLING INTO HIGH GEAR IN COUNTY	<input type="checkbox"/>	Opelika-Auburn News
	3/13/2003	"OFFICIALS: LITTERING IS A PROBLEM"	<input type="checkbox"/>	Opelika-Auburn News
	3/13/2003	LEE COUNTY CONSIDERS CURBSIDE GARBAGE PICK UP	<input type="checkbox"/>	Opelika-Auburn News
	3/14/2003	CITY PLANNING MUST RISE ABOVE DOING FAVORS	<input checked="" type="checkbox"/>	Opelika-Auburn News
	3/15/2003	IT'S A DIRTY PROBLEM OFTEN IGNORED	<input checked="" type="checkbox"/>	Opelika-Auburn News
	3/15/2003	VALLEY OFFICIALS DISCUSS SEWAGE, DRAINAGE PROBLEMS	<input type="checkbox"/>	Opelika-Auburn News
	3/17/2003	THANKS TO OFFICIALS FOR PROVIDING HAZARDOUS WASTE COLLECTION DAY	<input checked="" type="checkbox"/>	Opelika-Auburn News
	3/17/2003	"LITTER REDNECKS" WERE PROBABLY NEVER BOY SCOUTS	<input checked="" type="checkbox"/>	Opelika-Auburn News
	3/17/2003	KEEP OPELIKA BEAUTIFUL HOST ANNUAL GREAT AMERICAN CLEAN UP	<input type="checkbox"/>	Opelika-Auburn News

<i>Publication Date by Month</i>	<i>Publication Date</i>	<i>Title</i>	<i>Editorial</i>	<i>Publication Source</i>
	3/18/2003	CLEANING CREW "KEEP OPELIKA BEAUTIFUL"	<input type="checkbox"/>	Opelika-Auburn News
	3/23/2003	APPEAL AGAINST QUARRY DENIED	<input type="checkbox"/>	Opelika-Auburn News
	3/23/2003	QUARRY COMPANIES SEEK CHANGE OF VENUE	<input type="checkbox"/>	Opelika-Auburn News
	3/23/2003	WE'RE STILL GROWING AND GOING STRONG	<input checked="" type="checkbox"/>	Opelika-Auburn News
<i>April 2003</i>				
	4/10/2003	AUBURN HOST EARTH WEEK	<input type="checkbox"/>	Opelika-Auburn News
	4/10/2003	AUBURN'S HAZARDOUS WASTE COLLECTION DAY IS SATURDAY	<input type="checkbox"/>	Opelika-Auburn News
<i>June 2003</i>				
	6/8/2003	AU CENTER LEADING RESEARCH INTO FUTURE OF RURAL AREAS	<input type="checkbox"/>	Opelika-Auburn News
	6/9/2003	COUNTY BEGINS WORK ON FLOOD INSURANCE MEMBERSHIP	<input type="checkbox"/>	Opelika-Auburn News
	6/13/2003	STATE VETERINARIAN: PESTICIDE LIKELY KILLER OF 58 COWS	<input type="checkbox"/>	Opelika-Auburn News
	6/13/2003	OFFICIAL: MORE TRASH MORE CASH	<input type="checkbox"/>	Opelika-Auburn News
	6/23/2003	COMMISSION TAKING STEPS TO PROTECT OPELIKA'S WATERSHED	<input type="checkbox"/>	Opelika-Auburn News
	6/24/2003	HOMES FLOODED IN LATEST ROUND OF FLORIDA WATER WARS	<input type="checkbox"/>	Opelika-Auburn News
	6/25/2003	PROPOSAL TO CLEAN OUT DRAIN PIPE SENT TO VALLEY COMMITTEE	<input type="checkbox"/>	Opelika-Auburn News
<i>July 2003</i>				
	7/2/2003	RAIN, RAIN EVERYWHERE - BILL BRINGS HEAVY RAIN, HIGH WINDS TO AREA	<input type="checkbox"/>	Opelika-Auburn News
	7/2/2003	RAIN A PAIN ON PLAINS	<input type="checkbox"/>	Opelika-Auburn News
	7/2/2003	SMITHS STATION AND BEULAH CELEBRATE EARTH DAY WITH ART	<input type="checkbox"/>	Opelika-Auburn News
	7/7/2003	RAIN, RAIN HERE TO STAY?	<input type="checkbox"/>	Opelika-Auburn News

<i>Publication Date by Month</i>	<i>Publication Date</i>	<i>Title</i>	<i>Editorial</i>	<i>Publication Source</i>
	7/8/2003	IT'S BEST WE DON'T CONTROL RAIN	<input checked="" type="checkbox"/>	Opelika-Auburn News
	7/11/2003	VALLEY RESIDENT SUES FOR \$5 MILLION	<input type="checkbox"/>	Opelika-Auburn News
	7/16/2003	WASTE MANAGEMENT PURSUES LANDFILL ALONG VOTING RIGHTS TRAIL	<input type="checkbox"/>	Opelika-Auburn News
	7/16/2003	QUARRY NEGOTIATES WITH LOACHAPOKA	<input type="checkbox"/>	Opelika-Auburn News
	7/16/2003	SMITHS STATION RESIDENTS MAY SOON HAVE SEWER SERVICES	<input type="checkbox"/>	Opelika-Auburn News
	7/22/2003	QUARRY OFFER TURNS TO COMMUNITY DECISION	<input type="checkbox"/>	Opelika-Auburn News
	7/22/2003	OPELIKA OFFICIALS LOOKING TO PROTECT WATER SUPPLY	<input type="checkbox"/>	Opelika-Auburn News
<i>August 2003</i>				
	8/4/2003	MORE WARNINGS NEEDED FOR MERCURY	<input checked="" type="checkbox"/>	Opelika-Auburn News
	8/4/2003	QUARRY CRITICS CONCERNED ABOUT AFFET ON CATHEDRAL CAVERNS	<input type="checkbox"/>	Opelika-Auburn News
	8/8/2003	OPELIKA SEEKS HELP FROM RESIDENTS TO SOLVE DRAINAGE PROBLEM	<input type="checkbox"/>	Opelika-Auburn News
	8/9/2003	OPELIKA CLARIFIES RECOMMENDATION ON YARD WASTE	<input type="checkbox"/>	Opelika-Auburn News
	8/21/2003	HOUSE SLIDING DOWN HILL IN PHENIX CITY	<input type="checkbox"/>	Opelika-Auburn News
<i>October 2003</i>				
	10/15/2003	STUDENTS GET HANDS-ON LOOK AT MOTHER EARTH	<input type="checkbox"/>	Opelika-Auburn News
<i>November 2003</i>				
	11/6/2003	CHEWACLA SETTLEMENT NOT FINAL	<input type="checkbox"/>	Opelika-Auburn News
	11/6/2003	WATER BOARD MEMBERS NEED TO DO THEIR JOBS BEFORE THEY RAISE THEIR PAY	<input checked="" type="checkbox"/>	Opelika-Auburn News
	11/9/2003	RESIDENTS TAKE ADEM TO COURT	<input type="checkbox"/>	Opelika-Auburn News
	11/13/2003	OPELIKA, AUBURN TO CELEBRATE RECYCLING	<input type="checkbox"/>	Opelika-Auburn News

<i>Publication Date by Month</i>	<i>Publication Date</i>	<i>Title</i>	<i>Editorial</i>	<i>Publication Source</i>
<i>February 2004</i>				
	2/4/2004	MARK CALENDAR FOR ANNUAL CLEANUP EVENT	<input type="checkbox"/>	Opelika-Auburn News
	2/11/2004	ARBORDAY EVENTS TO BE "TREMENDOUS"	<input type="checkbox"/>	Opelika-Auburn News
	2/13/2004	STUDENTS INVITED TO ENTER WILDLIFE FOREVER STATE-FISH ART CONTEST	<input type="checkbox"/>	Opelika-Auburn News
	2/18/2004	TREE PROJECT TO BRING BEAUTY FOR GENERATIONS	<input type="checkbox"/>	Opelika-Auburn News
	2/18/2004	ORGANIC GARDENING CAN PRESENT CHALLENGE UNIQUE TO THE SOUTH	<input type="checkbox"/>	Opelika-Auburn News
	2/20/2004	TAKE TIME TO GET INVOLVED IN THE PLANNING OF YOUR CITY	<input checked="" type="checkbox"/>	Opelika-Auburn News
	2/21/2004	SUNRISE TO SUNSET FROM CLEANUPS TO CLEATS, THE AREA WAS BUZZING WITH ACTIVITY ALL DAY SATURDAY	<input type="checkbox"/>	Opelika-Auburn News
	2/25/2004	STUDENTS DIVERT ALMOST 7 TONS FROM LANDFILL	<input type="checkbox"/>	Opelika-Auburn News
	2/25/2004	COURTS HELPING PROTECT US FROM UNWISE DECISIONS OF BUSH ADMINISTRATION	<input checked="" type="checkbox"/>	Opelika-Auburn News
	2/27/2004	DESPITE RECENT REPORTS, EXPERTS CLAIM FISH SAFE, HEALTHY CHOICE	<input type="checkbox"/>	Opelika-Auburn News
<i>March 2004</i>				
	3/3/2004	RESTORING, REJUVENATING URBAN AREAS WITH TREES	<input type="checkbox"/>	Opelika-Auburn News
	3/3/2004	SPRING A GOOD TIME TO REMEMBER TO CLEAN UP THE AREA WHERE WE LIVE	<input checked="" type="checkbox"/>	Opelika-Auburn News
	3/3/2004	AREA STUDENTS COMPETE IN ENVIROBOWL	<input type="checkbox"/>	Opelika-Auburn News
	3/15/2004	OPELIKA HOST CLEAN UP DAYS	<input type="checkbox"/>	Opelika-Auburn News
	3/16/2004	RESIDENTS INVITED TO HELP WITH PROJECT TO BEAUTIFY SAUGAHATCHEE CREEK SITES	<input checked="" type="checkbox"/>	Opelika-Auburn News
	3/24/2004	VOLUNTEERS RALLY FOR CLEANUP	<input type="checkbox"/>	Opelika-Auburn News
	3/31/2004	BIG THANKS TO KOB'S CLEAN-UP CREW	<input type="checkbox"/>	Opelika-Auburn News
	3/31/2004	AUBURN PLANS PUBLIC WORKSHOP TO DISCUSS FUTURE LAND-USE PLAN	<input type="checkbox"/>	Opelika-Auburn News

<i>Publication Date by Month</i>	<i>Publication Date</i>	<i>Title</i>	<i>Editorial</i>	<i>Publication Source</i>
<i>April 2004</i>				
	4/2/2004	AUBURN DISCUSSES LAND-USE PROPOSAL	<input type="checkbox"/>	Opelika-Auburn News
	4/6/2004	PEOPLE IN POWER AVOIDING THE QUESTION AT HAND	<input checked="" type="checkbox"/>	Opelika-Auburn News
	4/6/2004	LOCAL OFFICIALS POSITIVE ABOUT HOME RULE	<input type="checkbox"/>	Opelika-Auburn News
	4/12/2004	SAFE TO SWIM? Water sampling could determine water safety	<input type="checkbox"/>	Opelika-Auburn News
	4/21/2004	SUCH VARIETY TO SEE AND PLACES TO BE	<input type="checkbox"/>	Opelika-Auburn News
	4/21/2004	EARTH DAY 2004 TO FEATURE SUSTAINABILITY SEMINARS, DEBATE	<input type="checkbox"/>	Opelika-Auburn News
	4/23/2004	AUBURN'S NEW PARK TO FEATURE HISTORIC TREES	<input type="checkbox"/>	Opelika-Auburn News
	4/27/2004	GLOBAL WARMING EXPERT TO VISIT AUBURN TODAY	<input type="checkbox"/>	Opelika-Auburn News
	4/28/2004	CRBSIDE PICKUP A POSSIBILITY	<input type="checkbox"/>	Opelika-Auburn News
<i>May 2004</i>				
	5/5/2004	AREA TRASH DISPUTE SETTLED	<input type="checkbox"/>	Opelika-Auburn News
	5/5/2004	STUDENTS POURING INTO WATER FESTIVAL	<input type="checkbox"/>	Opelika-Auburn News
	5/13/2004	SOLID WASTE AUTHORITY MEETS, NO DECISIONS MADE	<input type="checkbox"/>	Opelika-Auburn News
	5/14/2004	STUDENTS LEARN ABOUT WATER AT HALEY CENTER	<input type="checkbox"/>	Opelika-Auburn News
	5/22/2004	ATLANTA HAS SOWN SEEDS OF SPRAWL, AND NOW IT'S REAPING THE FRUITS	<input checked="" type="checkbox"/>	Opelika-Auburn News
	5/23/2004	ALABAMA LEGISLATOR ATTEMPTS TO SAVE HIS COUNTY'S WATER	<input type="checkbox"/>	Opelika-Auburn News
	5/24/2004	CHEWACA TO CELEBRATE NATIONAL TRAILS DAY JUNE 5	<input type="checkbox"/>	Opelika-Auburn News
	5/26/2004	CLEAN CAMPUS SCHOOLS DO A BEAUTIFUL JOB	<input type="checkbox"/>	Opelika-Auburn News
	5/26/2004	THE WONDER OF BIRDS	<input type="checkbox"/>	Opelika-Auburn News

<i>Publication Date by Month</i>	<i>Publication Date</i>	<i>Title</i>	<i>Editorial</i>	<i>Publication Source</i>
	5/26/2004	KPS GROUP EXPLAINS PLAN FOR GROWTH	<input type="checkbox"/>	Auburn Bulletin
	5/28/2004	AUBURN SEEKS RESIDENTS' INPUT	<input type="checkbox"/>	Opelika-Auburn News
<i>June 2004</i>				
	6/4/2004	AUBURN RESIDENTS MAP CITY'S FUTURE	<input type="checkbox"/>	Opelika-Auburn News
	6/10/2004	RESIDENTS, CITY DIFFER ON SOUTH COLLEGE	<input type="checkbox"/>	Opelika-Auburn News
	6/15/2004	LEE COUNTY TO SPLIT SOLID WASTE SERVICES	<input type="checkbox"/>	Opelika-Auburn News
	6/16/2004	OPELIKA MAY SPLIT GARBAGE SERVICE	<input type="checkbox"/>	Opelika-Auburn News
	6/18/2004	AUBURN FIELDS QUESTIONS ABOUT 'VILLAGE CENTERS' CONCEPT	<input type="checkbox"/>	Opelika-Auburn News
	6/19/2004	CITY OF AUBURN TO RESURFACE ROADS	<input type="checkbox"/>	Opelika-Auburn News
	6/21/2004	AUBURN EYESORES TO BE REDEVELOPED	<input type="checkbox"/>	Opelika-Auburn News
<i>July 2004</i>				
	7/1/2004	AUBURN MOVES FORWARD WITH LAND-USE PLAN	<input type="checkbox"/>	Opelika-Auburn News
	7/1/2004	Greenfacts	<input type="checkbox"/>	Open Line
	7/1/2004	Lee County Water Festival	<input type="checkbox"/>	Open Line
	7/15/2004	AUBURN DETAILS WILMORE PARK PLAN	<input type="checkbox"/>	Opelika-Auburn News
	7/16/2004	COMPLAINTS AIRED AT NORTHWEST MEETING	<input type="checkbox"/>	Opelika-Auburn News
	7/17/2004	AUBURN RESIDENTS WANT MORE TRAFFIC-CALMING DEVICES	<input type="checkbox"/>	Opelika-Auburn News
	7/21/2004	COUNTY AGENCIES STUDY ROAD USE	<input type="checkbox"/>	Opelika-Auburn News
	7/23/2004	CURBSIDE PICKUP REMAINS A POSSIBILITY IN COUNTY	<input type="checkbox"/>	Opelika-Auburn News
	7/24/2004	SOME AUBURN RESIDENTS UPSET ABOUT WESTVIEW CEMETERY MAINTENANCE	<input type="checkbox"/>	Opelika-Auburn News

<i>Publication Date by Month</i>	<i>Publication Date</i>	<i>Title</i>	<i>Editorial</i>	<i>Publication Source</i>
	7/27/2004	COMMISSION APPROVES BRIDGE REPLACEMENT PROJECT	<input type="checkbox"/>	Opelika-Auburn News
	7/27/2004	TROUBLED WATERS - FLOODING THREATENS LOCAL BUSINESSES	<input type="checkbox"/>	Opelika-Auburn News
<i>August 2004</i>				
	8/1/2004	A CHANGE IN PLASTIC RECYCLING	<input type="checkbox"/>	Open Line
	8/9/2004	ATLANTA TRASH ON THE WA Y?	<input type="checkbox"/>	Opelika-Auburn News
	8/10/2004	COUNTY RESIDENTS MAY BE POLLED ON CURBSIDE PICKUP	<input type="checkbox"/>	Opelika-Auburn News
	8/11/2004	WATER, WATER EVERYWHERE	<input type="checkbox"/>	Opelika-Auburn News
	8/12/2004	TROPICAL STORM BONNIE HEADING TOWARDS THE FLORIDA PANHANDLE	<input type="checkbox"/>	Opelika-Auburn News
	8/17/2004	TRASH PROPOSAL OUGHT TO BE CONCERN TO LOCAL LEADERS	<input checked="" type="checkbox"/>	Opelika-Auburn News
	8/18/2004	OPELIKA: NO MORE ATLANTA GARBAGE	<input type="checkbox"/>	Opelika-Auburn News
	8/31/2004	PUBLIC HEARING SET FOR METRO TRASH DEBATE	<input type="checkbox"/>	Opelika-Auburn News
<i>September 2004</i>				
	9/1/2004	LEE COUNTY SHOULD NOT BECOME METRO ATLANTA'S TRASH CAN	<input checked="" type="checkbox"/>	Opelika-Auburn News
	9/1/2004	Creek Clean Up	<input type="checkbox"/>	Open Line
	9/2/2004	FLORIDA ORDERS A HALF-MILLION TO LEAVE AS HURRICANE FRANCES CLOSES IN	<input type="checkbox"/>	Opelika-Auburn News
	9/2/2004	HURRICANE FRANCES CHURNS THROUGH CARIBBEAN	<input type="checkbox"/>	Opelika-Auburn News
	9/7/2004	LEE COUNTY COPEs WITH WIND, RAIN AS FRANCES MOVES IN	<input type="checkbox"/>	Opelika-Auburn News
	9/7/2004	FRANCES' PROLONGED POUNDING GOUGED FLORIDA	<input type="checkbox"/>	Opelika-Auburn News
	9/7/2004	TROPICAL STORM FRANCES PLOWED ASHORE ON THE FLORIDA PANHANDLE AND IS EXPECTED TO MOVE INTO GEORGIA AND ALABAMA	<input type="checkbox"/>	Opelika-Auburn News

<i>Publication Date by Month</i>	<i>Publication Date</i>	<i>Title</i>	<i>Editorial</i>	<i>Publication Source</i>
	9/7/2004	FRANCES ROARS THROUGH AREA	<input type="checkbox"/>	Opelika-Auburn News
	9/7/2004	FRANCES HEADS EAST, SPARES MOST OF ALABAMA	<input type="checkbox"/>	Opelika-Auburn News
	9/8/2004	FRANCES SPARES MOST OF LEE COUNTY	<input type="checkbox"/>	Opelika-Auburn News
	9/8/2004	STORM HITS SOME AREA RESIDENTS HARD	<input type="checkbox"/>	Opelika-Auburn News
	9/14/2004	AUBURN UNIVERSITY PREPARING FOR IVAN	<input type="checkbox"/>	Opelika-Auburn News
	9/14/2004	UNPREDICTABLE: COUNTY OFFICIALS PREPARE FOR THE WORST	<input type="checkbox"/>	Opelika-Auburn News
	9/18/2004	IVAN REMNANTS TURN DEADLY IN SOUTHEAST	<input type="checkbox"/>	Opelika-Auburn News
	9/22/2004	TRASH PICK-UP BEHIND SCHEDULE Opelika City Officials Apologize to Residents	<input type="checkbox"/>	Opelika-Auburn News
	9/22/2004	AUBURN COUNCIL HEARS REVIEW OF DAMAGES TO CITY FROM HURRICANE IVAN	<input type="checkbox"/>	Opelika-Auburn News
	9/23/2004	CITY HEARS RESIDENTS' THOUGHTS ON LAKE WILMORE PARK PLAN	<input type="checkbox"/>	Opelika-Auburn News
<i>October 2004</i>				
	10/13/2004	ATLANTA'S TRASH MAY STAY PUT City may pull trash deal from Waste Management	<input type="checkbox"/>	Opelika-Auburn News
	10/25/2004	WASTE MANAGEMENT: "No Host Fee"	<input type="checkbox"/>	Opelika-Auburn News
	10/25/2004	COUNTY TRASHES GARBAGE PLAN Commissioners vote 5-0 to deny Salem landfill expansion	<input type="checkbox"/>	Opelika-Auburn News
<i>November 2004</i>				
	11/3/2004	OPELIKA DISCUSSES URBAN FORESTRY PLANS	<input type="checkbox"/>	Opelika-Auburn News
<i>January 2005</i>				
	1/3/2005	RESIDENTS VOICE CONCERNS OVER ROADSIDE GARBAGE	<input type="checkbox"/>	Opelika-Auburn News
<i>March 2005</i>				
	3/3/2005	COUNTY DISCUSSES PAVING POLICY	<input type="checkbox"/>	OPELIKA-AUBURN NEWS

<i>Publication Date by Month</i>	<i>Publication Date</i>	<i>Title</i>	<i>Editorial</i>	<i>Publication Source</i>
	3/6/2005	THIRD ANNUAL BRIDGE CROSSING CLEAN-UP HELD	<input type="checkbox"/>	Opelika-Auburn News
	3/27/2005	FLOODING HITS AREA IN SECOND DAY OF STORMS	<input type="checkbox"/>	Opelika-Auburn News
<i>April 2005</i>				
	4/1/2005	ONGOING UTILITY MAPPING AND AERIAL PHOTOGRAPHY PROJECTS	<input type="checkbox"/>	Open Line
	4/1/2005	HOUSEHOLD HAZARDOUS WASTE COLLECTION DAY	<input type="checkbox"/>	Open Line
	4/1/2005	EARTH WEEK 2005	<input type="checkbox"/>	Open Line
	4/1/2005	THUNDERSTORMS AND HEAVY RAINS POUND LEE COUNTY	<input type="checkbox"/>	Opelika-Auburn News
	4/1/2005	AUBURN CITY FEST 2005	<input type="checkbox"/>	Open Line
<i>May 2005</i>				
	5/20/2005	MUDDY WATERS CUT THE LANDSCAPE	<input checked="" type="checkbox"/>	Opelika-Auburn News
<i>June 2005</i>				
	6/10/2005	ARLENE TO BRING WEEKEND RAIN	<input type="checkbox"/>	Opelika-Auburn News
	6/11/2005	ARLENE EXPECTED TO HIT LAND TODAY	<input type="checkbox"/>	Opelika-Auburn News
	6/12/2005	ARLENE MAKES LANDFALL BRINGING LOCAL SHOWERS, WIND	<input type="checkbox"/>	Opelika-Auburn News
<i>July 2005</i>				
	7/10/2005	DENNIS BEGINS POUNDING ALABAMA-FLORIDA COAST	<input type="checkbox"/>	OPELIKA-AUBURN NEWS
	7/11/2005	GULF COAST AVOIDS WIDESPREAD DAMAGE FROM DENNIS	<input type="checkbox"/>	OPELIKA-AUBURN NEWS
	7/11/2005	DENNIS THE MENACE	<input type="checkbox"/>	OPELIKA-AUBURN NEWS
	7/11/2005	RED CROSS SHELTERS PROVIDE SAFE HAVEN	<input type="checkbox"/>	OPELIKA-AUBURN NEWS
	7/11/2005	GAS PRICES SOAR AS DENNIS HITS THE COAST	<input type="checkbox"/>	OPELIKA-AUBURN NEWS

*August 2005*

<i>Publication Date by Month</i>	<i>Publication Date</i>	<i>Title</i>	<i>Editorial</i>	<i>Publication Source</i>
	8/10/2005	AUBURN COUNCIL CONSIDERS MAJOR BUDGET CHANGES	<input type="checkbox"/>	Opelika-Auburn News
	8/11/2005	CITIZENS SHOULD SPEAK OUT, FIND WAYS TO HELP LEADERS SOLVE COMMUNITY ISSUES	<input checked="" type="checkbox"/>	Opelika-Auburn News
	8/15/2005	COLLABORATION FOR 'BETTER, CLEANER ENVIRONMENT' SOMETHING TO BE PROUD OF	<input checked="" type="checkbox"/>	Opelika-Auburn News
	8/21/2005	PROJECT PROGRESS Rain slows Auburn bridge construction	<input type="checkbox"/>	Opelika-Auburn News
	8/28/2005	NEW ORLEANS FLEES FROM KATRINA	<input type="checkbox"/>	Opelika-Auburn News
	8/29/2005	KATRINA PLOWS INTO GULF COAST	<input type="checkbox"/>	Opelika-Auburn News
	8/30/2005	KAT-ASTROPHIC	<input type="checkbox"/>	Opelika-Auburn News
	8/31/2005	KATRINA'S VICTIMS FIND REFUGE IN OPELIKA First Baptist Provides Red Cross Shelter For Evacuees	<input type="checkbox"/>	Opelika-Auburn News
	8/31/2005	THE DAY AFTER Severe Weather's Wrath Wrecks Reeltown	<input type="checkbox"/>	Opelika-Auburn News
<i>September 2005</i>				
	9/1/2005	CITY INTRODUCES INTERNET MAPPING SITE	<input type="checkbox"/>	Open Line
	9/2/2005	KATRINA HITS HOME	<input type="checkbox"/>	Opelika-Auburn News
	9/7/2005	FORECASTERS' WARNINGS SHOULD HAVE BEEN HEDED	<input checked="" type="checkbox"/>	Opelika-Auburn News
	9/7/2005	HURRICANE JUST AS DESTRUCTIVE AS TERRORISTS, AND THEY'RE PREDICTABLE	<input checked="" type="checkbox"/>	Opelika-Auburn News
	9/9/2005	WATERSHEDS, WETLANDS AND STORMS	<input checked="" type="checkbox"/>	Opelika-Auburn News
	9/16/2005	FISHING RULES PROPOSED FOR SAUGAHATCHEE LAKE	<input type="checkbox"/>	Opelika-Auburn News
	9/20/2005	HELPING MOTHER EARTH	<input type="checkbox"/>	Opelika-Auburn News
	9/29/2005	COUNTY PRIMED FOR MAJOR GROWTH	<input checked="" type="checkbox"/>	Opelika-Auburn News
	9/29/2005	WATER HAZARDS SOAK CAMPUS	<input type="checkbox"/>	The Plainsman

*October 2005*

<i>Publication Date by Month</i>	<i>Publication Date</i>	<i>Title</i>	<i>Editorial</i>	<i>Publication Source</i>
	10/16/2005	STATE'S RIVERS IN FAST DECLINE	<input type="checkbox"/>	MONTGOMERY ADVERTISER
	10/20/2005	Auburn, Piedmont Conservation Groups Join Forces	<input type="checkbox"/>	Opelika-Auburn News
<i>January 2006</i>				
	1/4/2006	WATKINS: GROWTH SHOWS NO SIGNS OF SLOWING DOWN	<input type="checkbox"/>	Opelika-Auburn News
	1/4/2006	AUBURN 2006	<input type="checkbox"/>	Opelika-Auburn News
	1/8/2006	A GIFT OF THE DEVELOPMENT RIGHTS	<input type="checkbox"/>	Opelika-Auburn News
	1/10/2006	CITY MUST ADOPT HIGHER ENVIRONMENTAL STANDARDS OR EVERYONE WILL PAY FOR IT	<input checked="" type="checkbox"/>	Opelika-Auburn News
	1/13/2006	ORDINANCE THAT CONTAINS STRONG WATER PROTECTION STANDARDS IS NEEDED	<input checked="" type="checkbox"/>	Opelika-Auburn News
<i>February 2006</i>				
	2/17/2006	TREES FREE TO PUBLIC FOR ARBOR DAY IN AUBURN	<input type="checkbox"/>	Opelika-Auburn News
	2/21/2006	TAKING ROOT: Local Tree Specialists Give Tips on Planting	<input type="checkbox"/>	Opelika-Auburn News
<i>March 2006</i>				
	3/1/2006	Keep Auburn Beautiful Committee Roadside Cleanup Event	<input type="checkbox"/>	Open Line
	3/1/2006	Erosion and Sediment Control Workshop	<input type="checkbox"/>	Open Line
	3/5/2006	GROUP CLEANS UP COUNTY CREEKS	<input type="checkbox"/>	Opelika-Auburn News
<i>April 2006</i>				
	4/1/2006	AUBURN CITYFEST 2006	<input type="checkbox"/>	Open Line
	4/1/2006	Household Hazardous Waste Collection Day 2006	<input type="checkbox"/>	Open Line
	4/1/2006	EARTH WEEK 2006	<input type="checkbox"/>	Open Line
	4/10/2006	EARTH DAY EVENTS KICK OFF	<input type="checkbox"/>	Opelika-Auburn News

<i>Publication Date by Month</i>	<i>Publication Date</i>	<i>Title</i>	<i>Editorial</i>	<i>Publication Source</i>
	4/20/2006	EARTH DAY EVENTS HAS AUBURN UNIVERSITY THINKING GREEN	<input type="checkbox"/>	Opelika-Auburn News
<i>June 2006</i>				
	6/19/2006	RAIN FINALLY IN FORECAST FOR AREA THIS WEEK	<input type="checkbox"/>	Opelika-Auburn News
<i>July 2006</i>				
	7/1/2006	COUNCIL ADOPTS NEW STREAM BUFFER REQUIREMENTS	<input type="checkbox"/>	OPEN LINE
<i>August 2006</i>				
	8/27/2006	ERNESTO BECOMES HURRICANE	<input type="checkbox"/>	Opelika-Auburn News
	8/29/2006	KATRINA - ONE YEAR LATER	<input type="checkbox"/>	Opelika-Auburn News
<i>October 2006</i>				
	10/13/2006	SEVERE WEATHER POUNDS COUNTY	<input type="checkbox"/>	Opelika-Auburn News
	10/22/2006	NEW RECYCLING PROGRAM TRIMMING FAT FROM CITY'S WATER SYSTEM	<input type="checkbox"/>	Opelika-Auburn News
<i>November 2006</i>				
	11/1/2006	KEEP STORM DRAINS CLEAR	<input type="checkbox"/>	Open Line
	11/1/2006	CELEBRATE AUBURN RECYCLES DAY NOVEMBER 14	<input type="checkbox"/>	Open Line
	11/1/2006	SEWER SYSTEM GREASE AND OUR ENVIRONMENT	<input type="checkbox"/>	Open Line
	11/14/2006	RECYCLING CELEBRATION TODAY IN AUBURN	<input type="checkbox"/>	Opelika-Auburn News
	11/15/2006	AREA UNDER SEVERE WEATHER GUN TODAY	<input type="checkbox"/>	Opelika-Auburn News
	11/16/2006	SEVERE WEATHER	<input type="checkbox"/>	Opelika-Auburn News
	11/16/2006	LEE RESIDENTS ESCAPE BRUNT OF STORMS	<input type="checkbox"/>	Opelika-Auburn News
	11/29/2006	AU STUDENTS DESIGN ENVIRO-FRIENDLY ROOF FOR HALEY CENTER	<input type="checkbox"/>	Opelika-Auburn News
<i>December 2006</i>				

<i>Publication Date by Month</i>	<i>Publication Date</i>	<i>Title</i>	<i>Editorial</i>	<i>Publication Source</i>
	12/1/2006	STORMWATER RUNOFF	<input type="checkbox"/>	OPEN LINE
	12/5/2006	AUBURN TO ADDRESS WATERSHED ISSUE	<input type="checkbox"/>	Opelika-Auburn News
	12/19/2006	E.coll found in Saugahatchee	<input type="checkbox"/>	Opelika-Auburn News
	12/20/2006	WATERSHEDS SHOULD BE TESTED MORE OFTEN	<input checked="" type="checkbox"/>	Opelika-Auburn News
<i>January 2007</i>				
	1/9/2007	WAITING FOR ANSWERS: ADEM Delays E.coli Testing on Saugahatchee Creek	<input type="checkbox"/>	Opelika-Auburn News
	1/23/2007	ADEM TESTS ON SAUGAHATCHEE UNDERWAY	<input type="checkbox"/>	Opelika-Auburn News
<i>February 2007</i>				
	2/1/2007	COUNTDOWN TO CITYFEST 2007	<input type="checkbox"/>	Opelika-Auburn News
	2/9/2007	AUBURN CITY COUNCIL DESERVES KUDOS FOR HELPING STREAMS	<input checked="" type="checkbox"/>	Opelika-Auburn News
	2/16/2007	WATER QUALITY MONITORING CLASS OFFERED SATURDAY	<input type="checkbox"/>	Opelika-Auburn News
	2/16/2007	ADEM AWAITS LAB WORK ON CREEK'S E.COLI TEST	<input type="checkbox"/>	Opelika-Auburn News
<i>March 2007</i>				
	3/30/2007	Household Hazardous Waste Collection Day Set for Saturday	<input type="checkbox"/>	Opelika-Auburn News
<i>April 2007</i>				
	4/1/2007	Auburn City Employees Collect Hazardous Waste	<input type="checkbox"/>	OPELIKA-AUBURN NEWS
	4/1/2007	Earth Week 2007	<input type="checkbox"/>	Open Line
	4/1/2007	Auburn CityFest 2007	<input type="checkbox"/>	Open Line
	4/8/2007	Celebration for Earth Set	<input type="checkbox"/>	Opelika-Auburn News
	4/8/2007	Environmental Groups Join Together to Clean Area Creeks	<input type="checkbox"/>	Opelika-Auburn News

*May 2007*

<i>Publication Date by Month</i>	<i>Publication Date</i>	<i>Title</i>	<i>Editorial</i>	<i>Publication Source</i>
	5/2/2007	What You Can Do to Help Keep Auburn Beautiful	<input type="checkbox"/>	Open Line
	5/4/2007	ADEM Confirms Bacterial Presence in Creeks	<input type="checkbox"/>	Opelika-Auburn News
	5/23/2007	A Combined Effort	<input type="checkbox"/>	Opelika-Auburn News
	5/24/2007	AU Looks for Niche in Water Research	<input type="checkbox"/>	Opelika-Auburn News
	5/24/2007	AU to Hold Conference on Water Usage	<input type="checkbox"/>	Opelika-Auburn News
	5/31/2007	Dam Removed from Part of Moores Mill Creek	<input type="checkbox"/>	Opelika-Auburn News
<i>June 2007</i>				
	6/1/2007	Running Dry	<input type="checkbox"/>	Opelika-Auburn News
	6/6/2007	East Central Alabama Gets Rain	<input type="checkbox"/>	Opelika-Auburn News
<i>August 2007</i>				
	8/20/2007	DROUGHT CONDITIONS CONTINUE STATEWIDE	<input type="checkbox"/>	Opelika-Auburn News
	8/26/2007	DROUGHT	<input type="checkbox"/>	Opelika-Auburn News
	8/26/2007	WHAT ABOUT GEORGIA?	<input type="checkbox"/>	Opelika-Auburn News
	8/28/2007	ADEM RETURNS TO IDENTIFY E.COLI SOURCE IN LEE COUNTY WATERWAYS	<input type="checkbox"/>	Opelika-Auburn News
	8/31/2007	ADEM SUSPENDS WATER TESTING AFTER BEING INFORMED OF BROKEN SEWER LINE	<input type="checkbox"/>	Opelika-Auburn News
<i>September 2007</i>				
	9/19/2007	3 CREEKS LISTED AS IMPAIRED	<input type="checkbox"/>	Opelika-Auburn News
	9/27/2007	ADEM FINDS VIOLATIONS IN COUNTY FLYOVER	<input type="checkbox"/>	Opelika-Auburn News
<i>October 2007</i>				
	10/4/2007	ADEM FLYOVER SHOWS ONLY ONE AUBURN VIOLATION	<input type="checkbox"/>	Auburn Villager

<i>Publication Date by Month</i>	<i>Publication Date</i>	<i>Title</i>	<i>Editorial</i>	<i>Publication Source</i>
	11/1/2007	AUBURN RECYCLES DAY: CELEBRATING 20 YEARS OF RECYCLING IN THE CITY OF AUBURN	<input type="checkbox"/>	Open Line
	11/20/2007	STATE CITES RETIREE FOR DIRT PIT	<input type="checkbox"/>	Opelika-Auburn News
<i>January 2008</i>				
	1/4/2008	Rain raises levels in some state lakes	<input type="checkbox"/>	Opelika-Auburn News
	1/4/2008	Christmas Rains Were Beautiful Stocking Stuffers	<input checked="" type="checkbox"/>	Opelika-Auburn News
	1/14/2008	Ex-Stream Makeover	<input type="checkbox"/>	Opelika-Auburn News
<i>March 2008</i>				
	3/14/2008	ADEM, Local Partners Help Revive Streams	<input type="checkbox"/>	Opelika-Auburn News
<i>April 2008</i>				
	4/1/2008	6th Annual Household Hazardous Waste Collection Day - Saturday, April 19	<input type="checkbox"/>	Open Line
	4/1/2008	City to Host Earth Day for Auburn City Schools 2nd Graders	<input type="checkbox"/>	Open Line
	4/1/2008	GrOw Green	<input type="checkbox"/>	Open Line
	4/1/2008	Going Green Saves Green	<input type="checkbox"/>	Open Line
	4/1/2008	Auburn CityFest 2008	<input type="checkbox"/>	Open Lijne
<i>May 2008</i>				
	5/9/2008	ADEM Gives Auburn an All Clear	<input type="checkbox"/>	Opelika-Auburn News
	5/23/2008	Opelika Middle School Students Plant for the Future	<input type="checkbox"/>	Opelika-Auburn News
<i>June 2008</i>				
	6/13/2008	Local Watershed SWaMPed With Success	<input checked="" type="checkbox"/>	Opelika-Auburn News
	6/23/2008	Investing in Waterways Good for Future	<input checked="" type="checkbox"/>	Opelika-Auburn News
<i>July 2008</i>				

<i>Publication Date by Month</i>	<i>Publication Date</i>	<i>Title</i>	<i>Editorial</i>	<i>Publication Source</i>
	7/22/2008	East Alabama Still in Drought	<input type="checkbox"/>	Opelika-Auburn News
	7/23/2008	Hurricane Dolly Bears Down on Texas-Mexico Coast	<input type="checkbox"/>	Opelika-Auburn News
	7/25/2008	Drought Condition Worsens Across State	<input type="checkbox"/>	Opelika-Auburn News
<i>August 2008</i>				
	8/21/2008	Tropical Storm Faye Hits FL a 3rd Time	<input type="checkbox"/>	Opelika-Auburn News
	8/25/2008	Crews Work to Restore Power: Cleanup After Weekend Storms	<input type="checkbox"/>	Opelika-Auburn News
	8/25/2008	Faye Still a Player in the Forecast	<input type="checkbox"/>	Opelika-Auburn News
	8/26/2008	Gustav Forms in the Caribbean	<input type="checkbox"/>	Opelika-Auburn News
	8/26/2008	Residents Need to Be Ready for Storm Season	<input type="checkbox"/>	Opelika-Auburn News
	8/28/2008	Rains from Fay came as blessing to dry South	<input checked="" type="checkbox"/>	Opelika-Auburn News
<i>September 2008</i>				
	9/19/2008	Voice Your Concerns About Quarry	<input checked="" type="checkbox"/>	Opelika-Auburn News
<i>February 2009</i>				
	2/10/2009	New Flood Maps Could Mean New Insurance Costs for Some Residents	<input type="checkbox"/>	Opelika-Auburn News
	2/11/2009	Potential for Stormy Weather Today	<input type="checkbox"/>	Opelika-Auburn News
	2/26/2009	Tree Commission to Give Away Trees	<input type="checkbox"/>	Opelika-Auburn News
<i>March 2009</i>				
	3/2/2009	WILD WEATHER	<input type="checkbox"/>	Opelika-Auburn News
	3/13/2009	Auburn urges residents to recycle cooking grease	<input type="checkbox"/>	Opelika-Auburn News
<i>April 2009</i>				
	4/2/2009	Auburn Plans Earth Week Activities	<input type="checkbox"/>	Opelika-Auburn News

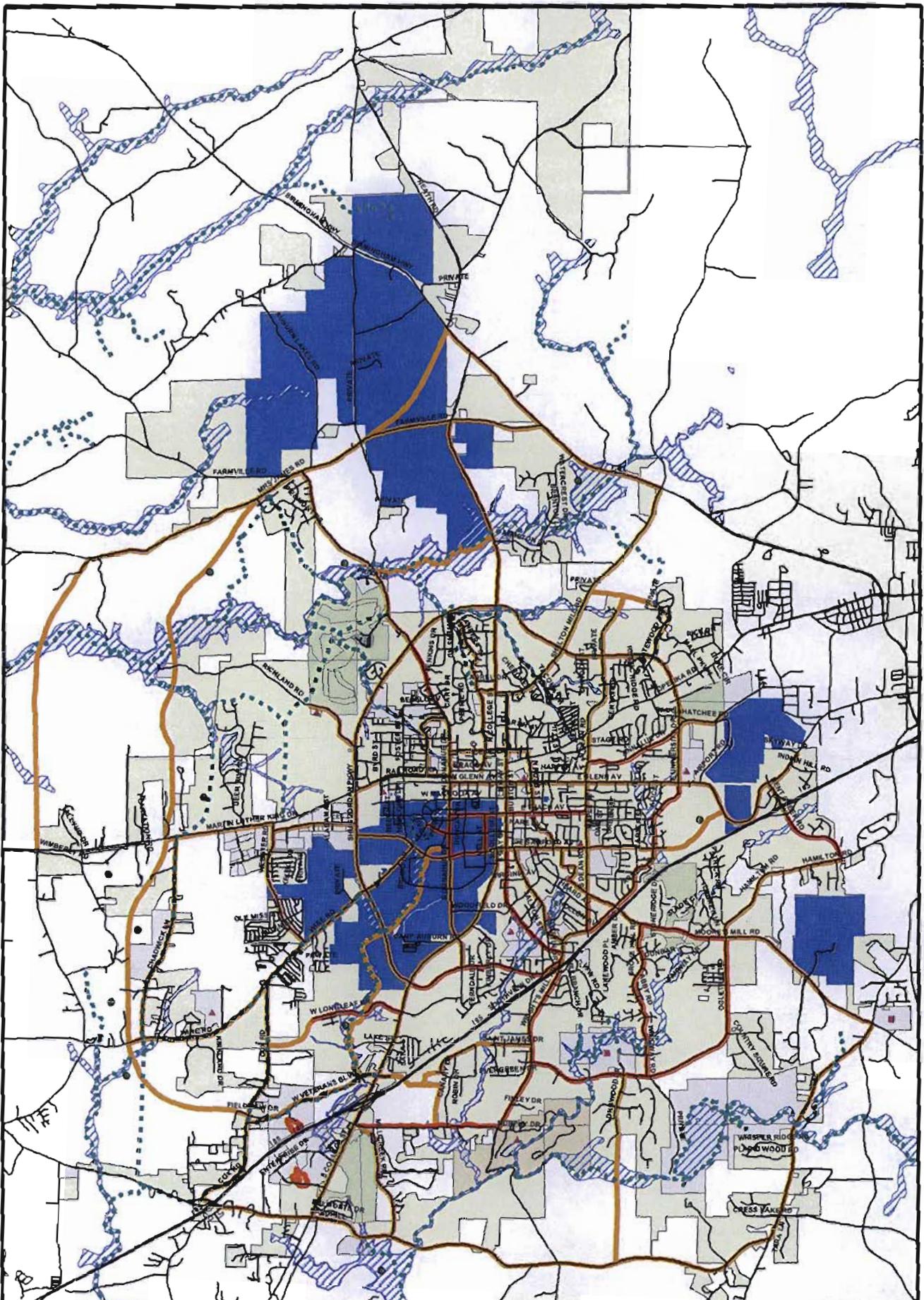
<i>Publication Date by Month</i>	<i>Publication Date</i>	<i>Title</i>	<i>Editorial</i>	<i>Publication Source</i>
	4/3/2009	State About Right for Rainfall	<input type="checkbox"/>	Opelika-Auburn News
	4/13/2009	Strong Storms Push Across Alabama	<input type="checkbox"/>	Opelika-Auburn News
<i>May 2009</i>				
	5/1/2009	FEMA Floodplain Maps and Flood Insurance Study Update	<input type="checkbox"/>	Open Line
	5/1/2009	City Launches Fats, Oil, and Grease Recycling Program	<input type="checkbox"/>	Open Line
	5/1/2009	FEMA Floodplain Maps & Flood Insurance Study Update	<input type="checkbox"/>	Open Line
	5/4/2009	Storms Down Trees, Powerlines	<input type="checkbox"/>	Opelika-Auburn News
	5/14/2009	Watershed Meeting Begins Day 2	<input type="checkbox"/>	Opelika-Auburn News
<i>July 2009</i>				
	7/14/2009	Thunderstorms Bring Needed Rain	<input type="checkbox"/>	Opelika-Auburn News
<i>August 2009</i>				
	8/18/2009	Hurricane Bill, 1st of Atlantic Season, Revs Up	<input type="checkbox"/>	Opelika-Auburn News
<i>September 2009</i>				
	9/22/2009	Floods Wash Out Roads Across Georgia	<input type="checkbox"/>	Opelika-Auburn News
	9/23/2009	Southeast Struggles to Recover from Deluge	<input type="checkbox"/>	Opelika-Auburn News
	9/24/2009	River Rises with Torrential Rain, West Point Lake's Dam Prevents Flooding	<input type="checkbox"/>	Opelika-Auburn News
<i>October 2009</i>				
	10/21/2009	Feds Crack Down on Smaller AL Polluters	<input type="checkbox"/>	Opelika-Auburn News
	10/28/2009	East Alabama Gets Its Fair Share of Rain	<input type="checkbox"/>	Opelika-Auburn News
<i>December 2009</i>				
	12/14/2009	Cold Rain, Fog Veil Dreary Weekend	<input type="checkbox"/>	Opelika-Auburn News

<i>Publication Date by Month</i>	<i>Publication Date</i>	<i>Title</i>	<i>Editorial</i>	<i>Publication Source</i>
	12/17/2009	Geologist: Water Levels Up	<input type="checkbox"/>	Opelika-Auburn News
<i>April 2010</i>				
	4/23/2010	Local Schools Celebrate Earth Day	<input type="checkbox"/>	Opelika-Auburn News
<i>May 2010</i>				
	5/18/2010	Stream Designated as Swingle Creek in Honor of AU Professor	<input type="checkbox"/>	Opelika-Auburn News
<i>June 2010</i>				
	6/1/2010	City Offers Incentives for Recycling	<input type="checkbox"/>	Open Line
	6/1/2010	Waste Collection Day Yields Record Numbers	<input type="checkbox"/>	Open Line
	6/1/2010	Auburn Citizens Voice Their Opinions	<input type="checkbox"/>	Open Line
<i>September 2010</i>				
	9/22/2010	Participants Soak Up Knowledge at Rainwater Event in Notasulga	<input type="checkbox"/>	Opelika-Auburn News
<i>October 2010</i>				
	10/27/2010	Weather: You like it or don't	<input checked="" type="checkbox"/>	Opelika-Auburn News
<i>November 2010</i>				
	11/3/2010	State's Dry Weather to Continue	<input type="checkbox"/>	Opelika-Auburn News
	11/16/2010	Autumn Weather: Much-Needed Rains Ease Area Drought Conditions	<input type="checkbox"/>	Opelika-Auburn News
<i>February 2011</i>				
	2/9/2011	WATERSHED PLAN MOVES TO SECOND PHASE	<input type="checkbox"/>	Opelika-Auburn News

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## **APPENDIX D**

# **GREEN SPACE AND GREEN WAY MASTER PLAN**



- LEGEND**
- Green Areas
  - Greenways
  - ▲ Parks
  - Future Parks
  - Streets
  - Bike Paths
  - Existing
  - ▨ Floodplain
  - ▨ City Property
  - ▨ Golf Courses
  - ▨ Cherokee State Park
  - ▨ Auburn University Property
  - ▨ City Limits
  - ▨ Golf Course

City of Auburn  
Green Space and Green Way  
Master Plan

2005



Map Date: 3/29/2005  
By: Lisa Garcia  
Public Works, Mapping Assistant  
From 2004 GIS Data