Baldwin County Commission

322 Courthouse Square
Bay Minette, Alabama 36507

Municipal Separate Storm Sewer System (MS4) Annual Report

NPDES Permit No. ALR040042

March 2014

Reporting Period
1 April 2013 to 31 March 2014

Table of Contents

1. General Information Error! Bookmark not defined.

1.1. Signatory Requirements 1-1
1.2. List of Contacts 1-2
1.3. Overview and Summary 1-3
1.4. MS4 Characterization 1-4
1.4.1. Known Problems 303(d) Listed Streams 1-8

2. Program Evaluation 2-1

2.1. Program Objectives 2-1
2.2. Public Education and Outreach 2-1
2.2.1. Local Partnerships 2-1
2.2.2. Brochures 2-2
2.2.3. Website 2-2
2.2.4. Workshops 2-3
2.2.5. Training 2-4
2.3. Public Involvement / Participation 2-4
2.3.1. Baldwin County Water Festival 2-4
2.3.2. Coastal Kids Quiz 2-5
2.3.3. Master Environmental Educator Program 2-5
2.3.4. Watershed Wagon 2-6
2.3.5. Litter Abatement Programs 2-6
2.3.6. Recycling 2-7
2.3.7. Call Center 2-7
2.3.8. Household Hazardous Waste Collection 2-7
2.3.9. Waste Cooking Oil Recycling 2-8
2.3.10. Baldwin County Commission Meetings
2.3.11. Baldwin County Master Plan - 2013 2-8
2.4. Illicit Discharge Detection and Elimination 2-9
2.4.1. Outfalls Screened 2-10
2.4.2. Spill Reponse 2-10
2.4.3. Sanitary Sewer System 2-10
2.4.4 Enforcement 2-11
2.4.5 Standard Operating Procedures 2-11
2.5. Construction Site Storm Water Runoff Control 2-12

2.5.1. Requirements and Control Measures 2-12
2.5.2. Permitting, Plan Review and Inspections 2-12
2.5.3. Enforcement 2-13
2.5.4. Training 2-15
2.6. Post-Construction Storm Water Management 2-15
2.6.1. Low Impact Development 2-15
2.6.2. Development Regulations 2-15
2.6.3. Conservation Development 2-16
2.6.4. Post Construction BMPs 2-17
2.6.5. Operation and Maintenance 2-18
2.6.6. Tracking System 2-18
2.6.7. Training 2-18
2.7. Pollution Prevention / Good Housekeeping 2-18
2.7.1. Facility Inventory 2-18
2.7.2. Facility Assessments 2-19
2.7.3. Structural Controls 2-19
2.7.3.1. Data Management 2-21
2.7.3.2. Inspections 2-23
2.7.4. Roadways 2-23
2.7.4.1. License Agreements 2-23
2.7.4.2. Road Inspections 2-24
2.7.4.3. Bridge Inspections 2-24
2.7.4.4. Mowing 2-24
2.7.4.5. Litter Control 2-25
2.7.4.6. Resurfacing 2-25
2.7.4.7. Deicing Activities 2-23
2.7.5. Training 2-26
2.7.7. Flood Management 2-26
2.7.6.1. Community Rating System (CRS) 2-26
2.8. Monitoring Plan 2-28

3. Summary Tables **3-1**

3.1. Public Education and Outreach 3-1
3.2. Public Involvement / Participation 3-3
3.3. Illicit Discharges Detection and Elimination 3-4
3.4. Construction Site Runoff 3-5
3.5. Post-Construction Storm Water Management 3-6
3.6. Pollution Prevention / Good Housekeeping 3-7
3.6.1. Structural Controls 3-8
3.6.2. Roadways 3-9

4. MS4 Program Modifications **4-1**

4.1. SWMP Plan Update 4-1

List of Tables

Table 1-1 Metropolitan Areas 1-5
Table 1-2 Baldwin County MS4 Area 1-56
Table 1-3 Baldwin County MS4 Area Watersheds 1-68
Table 1-4 2010 303(d) Listed Streams 1-89
Table 2-1 Outfalls Screened by Basin 2-10
Table 2-2 Storm Sewer Inlet Inventory 2-19
Table 2-3 Storm Sewer Pipe Inventory 2-20
Table 2-4 Cross Drain Pipe Inventory 2-21
Table 3-1 Public Education and Outreach 3-1
Table 3-2 Public Involvement / Participation 3-3
Table 3-3 Illicit Discharges Detection and Elimination 3-4
Table 3-4 Construction Site Runoff 3-5
Table 3-5 Post-Construction Storm Water Management 3-6
Table 3-6 Pollution Prevention / Good Housekeeping 3-7
Table 3-6.1 Structural Controls 3-8
Table 3-6.2 Roadways 3-9

List of Figures

Figure 1-1 SWMP Organizational Chart 1-2
Figure 1-2 Historical Population 1-25
Figure 1-3 Baldwin County Urbanized Area 1-57
Figure 1-4 Baldwin County Watersheds 1-11
Figure 1-5 Baldwin County Impaired Streams 1-12
Figure 2-1 Watershed Wagon 2-6
Figure 2-2 Enforcement Action Flow Chart 2-14

Appendices

Appendix A Public Education and Outreach
Appendix B Public Involvement / Participation
Appendix C Illicit Discharge Detection and Elimination
Appendix D Construction Site Storm Water Runoff Control
Appendix E Post-Construction Storm Water Management
Appendix F Pollution Prevention / Good Housekeeping
Appendix G Monitoring Activities
Appendix H SWMP Plan Revisions

1. General Information

1.1. Signatory Requirements

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

Charles F. Gruber	Commission Chairman
Name	Title
	3-18-14
Signature	Date

Address: Baldwin County Commission
Baldwin County Administration Building
312 Courthouse Square, Suite 12
Bay Minette, Alabama 36507

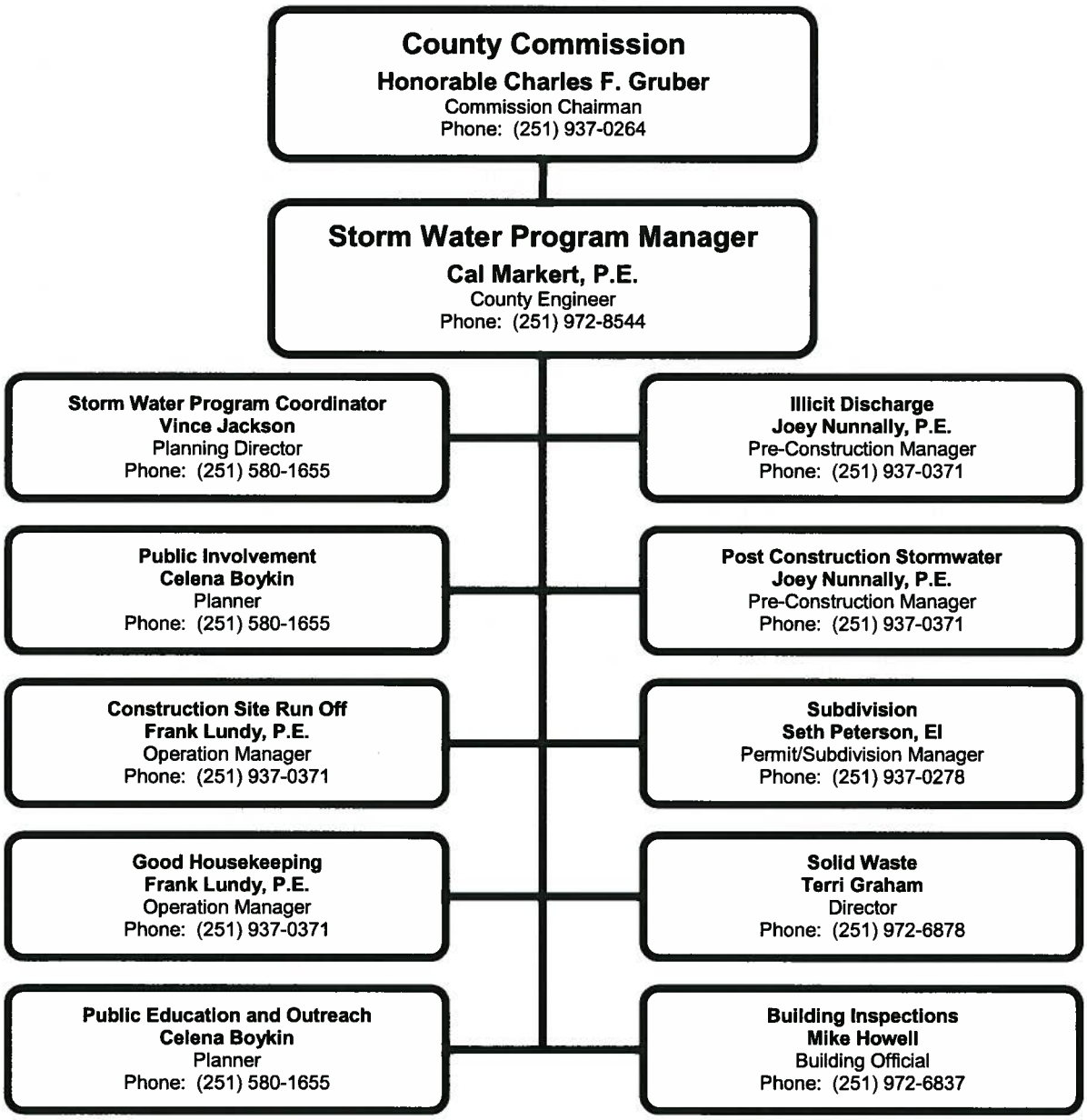
Phone: (251) 937-0264

Fax: (251) 580-2500

1.2. List of Contacts

Contacts and responsible parties (e.g. agency, name, phone number) that had input to and are responsible for the preparation of this annual report are summarized in Table 1-1. Various County Staff and departments contributed materials and data for incorporation into this annual report.

Figure 1-1
SWMP Organizational Chart



Baldwin County also received assistance and guidance in preparation of this annual report from the following:

Dewayne Smith, P.E.
Consultant
Hydro Engineering Solutions, LLC
2124 Moore's Mill Road, Suite 120
Auburn, AL 36830
(334) 740-6000

Any questions concerning Baldwin County's Municipal Separate Storm Sewer System (MS4) Annual Report shall be directed to Mr. Cal Markert, Storm Water Program Manager, or to Mr. Vince Jackson, Storm Water Program Coordinator.

1.3. Overview and Summary

In 1990, the U.S. Environmental Protection Agency (EPA) promulgated regulations establishing Phase I of the National Pollutant Discharge Elimination Systems (NPDES) storm water program. The Phase I program for municipal separate storm sewer systems (MS4s) requires operators of "medium" and "large" MS4s that generally serve populations of 100,000 or greater to implement a storm water management program as a means to control polluted discharges from certain municipal, industrial and construction activities into the MS4.

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

The Alabama Department of Environmental Management (ADEM) presently has primary jurisdiction over permitting and enforcement of the storm water program for Alabama. In November 2011, Baldwin County submitted a request to ADEM to be re-designated from a Phase I MS4 to a Phase II MS4. On December 22, 2011, ADEM granted this request and issued coverage under the MS4 Phase II General Permit (NPDES Permit Number ALR040042) for storm water discharges associated with the Baldwin County MS4.

In June 2012, Baldwin County updated its Storm Water Management Program (SWMP) plan to address changes to the minimum control measures in Part III of the MS4 NPDES General Permit that include:

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

Baldwin County's SWMP is a MS4 specific comprehensive program developed to reduce the discharge of pollutants from the small MS4 to the Maximum Extent Practicable (MEP) to protect water quality and to satisfy the appropriate water quality requirements of the Clean Water Act.

This annual report summarizes the County's efforts for the reporting period from April 1, 2013, through March 31, 2014, to comply with the MS4 NPDES General Permit; the above listed six program elements, and requirements to the MEP.

1.4. MS4 Area

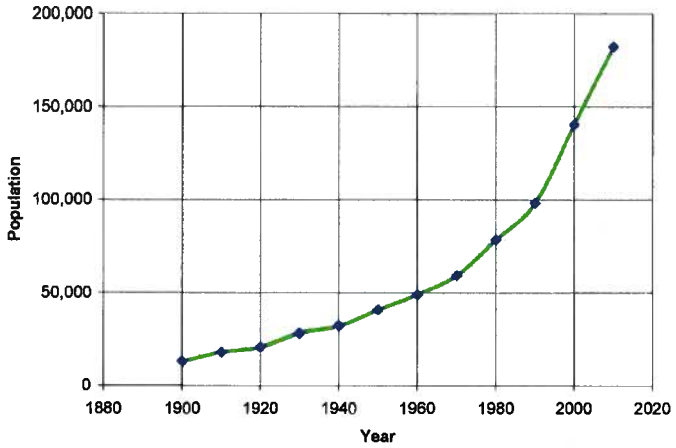
Baldwin County is located in southwest Alabama and borders Mobile Bay and the Gulf of Mexico. The County occupies approximately 2,026.93 square miles that consist of approximately 1,596.35 square miles of land and 430.58 square miles of water. Metropolitan areas located within Baldwin County are listed in Table 1-1.

Table 1-1
Metropolitan Areas

- Bay Minette
- Elberta
- Foley
- Loxley
- Orange Beach
- Robertsdale
- Spanish Fort
- Daphne
- Fairhope
- Gulf Shores
- Magnolia Springs
- Perdido Beach
- Silverhill
- Summerdale

Since the 1900's, Baldwin County has experienced a steady increase in population. Figure 1-2 provides a graph showing the historical population of Baldwin County since 1900.

Figure 1-2
Historical Population



According to the 2010 Census, the population of Baldwin County is 182,265. As compared to the population in 2000, Baldwin County has experienced a population increase of 41,850 (approximately 29.8%) over the past 10 years.

In accordance with 40 CFR 122.32, only portions of the County that are located within an Urbanized Area are regulated as a small MS4 under the NPDES storm water program. The County has defined its MS4 Areas based on the Daphne-Fairhope Urbanized Area. Unincorporated areas of the County that are located within the Daphne-Fairhope Urbanized Area are shown in Figure 1-3.

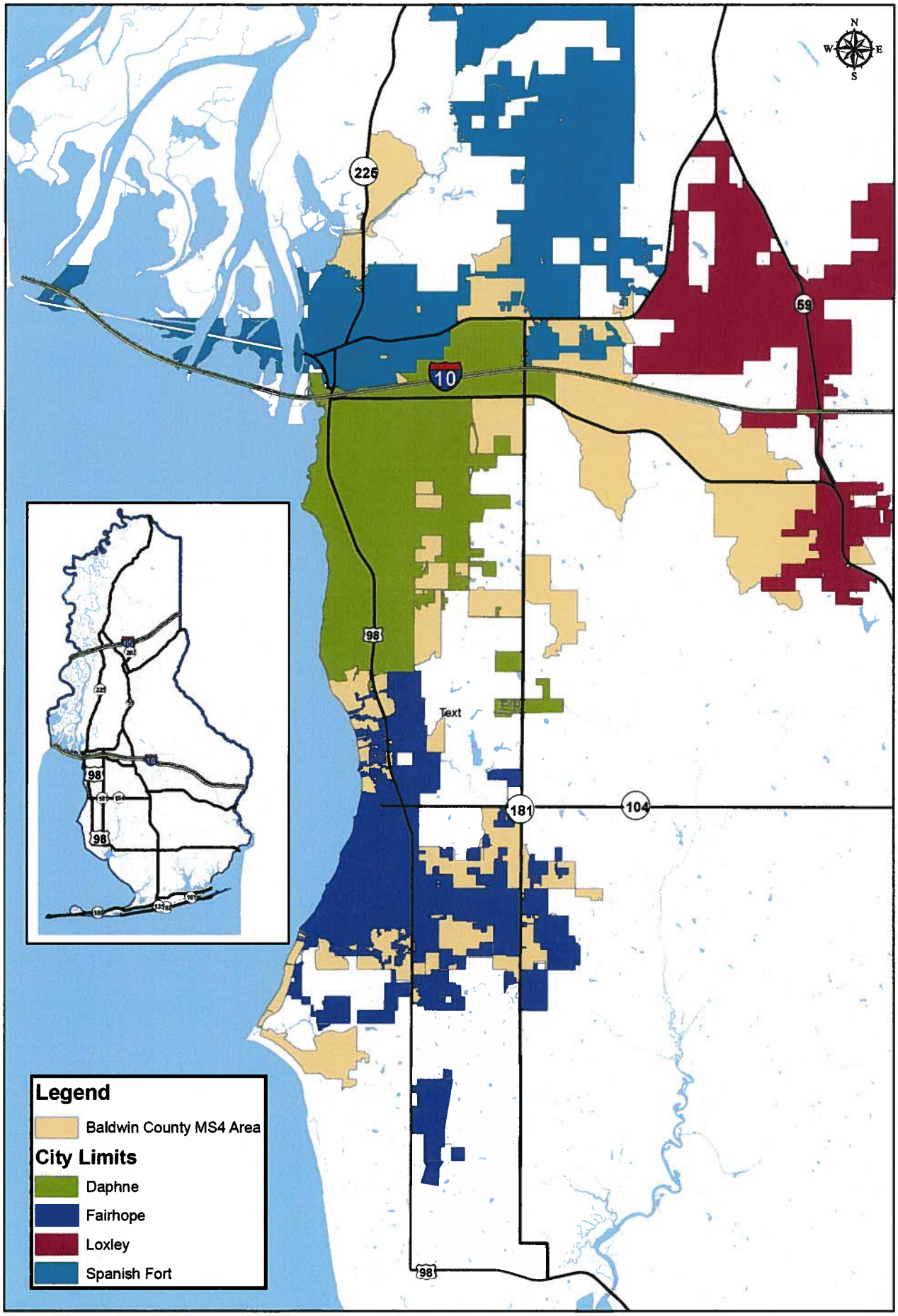
Incorporated areas located within the MS4 Area include Daphne, Fairhope and Spanish Fort.

Table 1-2 provides a breakdown of the MS4 Area by permittee.

Table 1-2
Baldwin County MS4 Area

Permittee	Population (2010)	MS4 Area	
		Area (mi^2)	Area (%)
Daphne	21,570	16.39	25.5
Fairhope	15,536	13.19	20.5
Spanish Fort	7,520	28.00	43.6
Baldwin County	--[1]	6.67	10.4
Total	44,626	64.25	100.0

[1] Due to the level of detail currently available in the Census data, the population of Baldwin County's MS4 Area cannot be estimated.



BALDWIN COUNTY MS4 AREA

Figure 1-3

March 2014

Unincorporated areas of Baldwin County located within the Daphne-Fairhope Urbanized Area occupies approximately 22.64 square miles.

Baldwin County's MS4 Area expands across eight (8) watersheds that have a 12 digit Hydrologic Unit Code (HUC 12). The areas of Baldwin County's MS4 Area located within each HUC 12 watersheds are summarized in Table 1-3 and shown in Figure 1-4.

Table 1-3
Baldwin County MS4 Area Watersheds

HUC-12 Watershed	MS4 Area	
	Area (mi^2)	Area (%)
Upper Fish River	11.286	49.9
Fly Creek	3.746	16.5
Lower Bay Minette Creek	2.600	11.5
Lower Fish River	2.361	10.4
Tensaw River – Apalachee River	1.654	7.3
Yancey Branch	0.467	2.1
Middle Fish River	0.407	1.8
Perone Branch	0.123	0.5
Total	22.644	100.0

The majority (approximately 62.6%) of the Baldwin County's MS4 area is located within the Fish River watershed.

1.4.1. Known Problems (303(d) Listed Streams)

According to ADEM's 303(d) list dated April 2010, there are eight (8) streams that are located within the drainage basins of the MS4 Area that have been designated as impaired. ADEM's 303(d) listed streams are summarized in Table 1-4 and shown in Figure 1-5.

Table 1-4
2010 303(d) Listed Streams

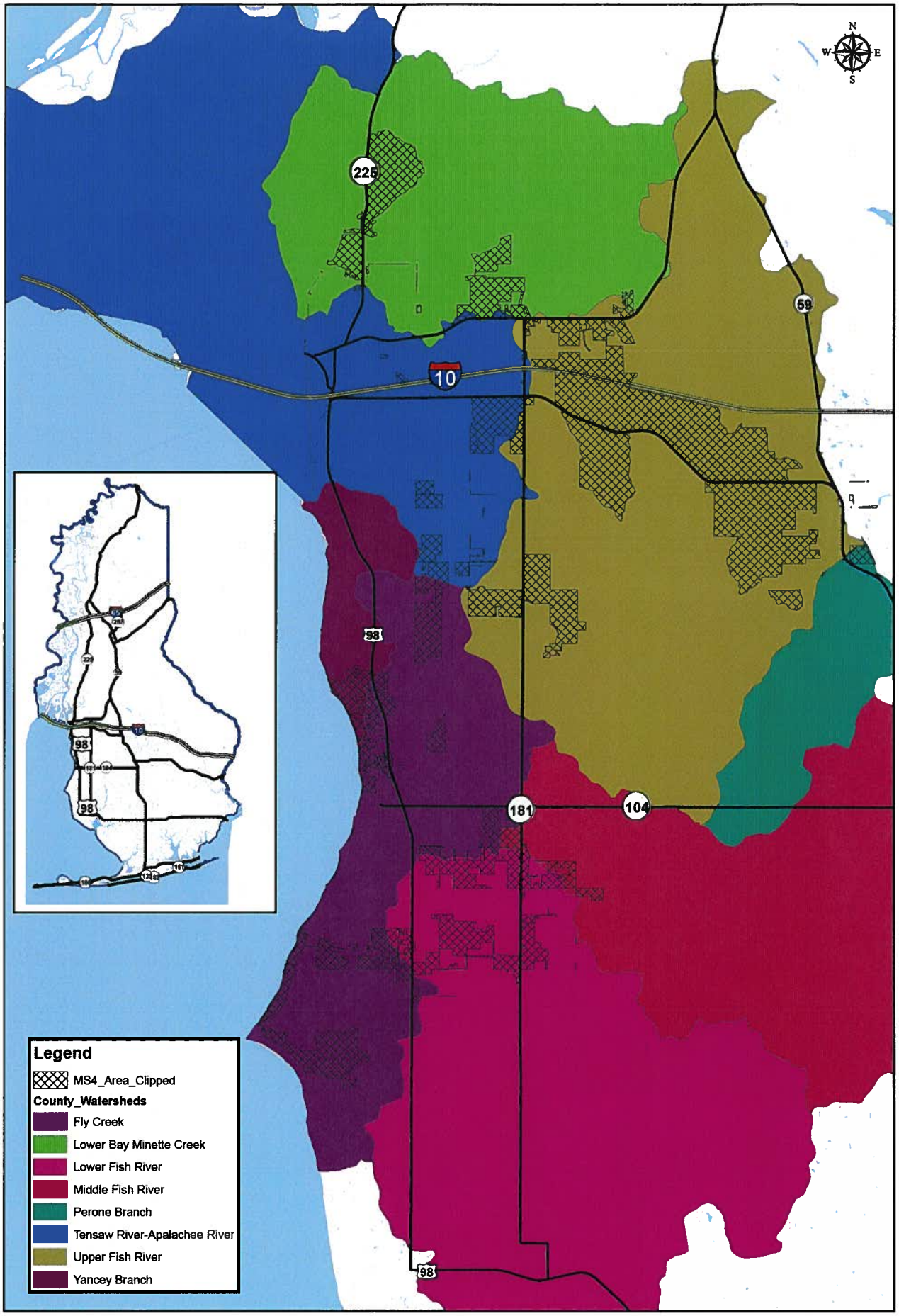
Stream		Designated Use	Pollutant of Concern	Sources
Name	River Basin			
Bay Minette Creek	Upper and Lower Bay Minette Creek	Fish & Wildlife	Metals (Mercury)	Atmospheric Deposition
Joes Branch	Tensaw River Apalachee River	Fish & Wildlife	Siltation Habitat Alteration	Land Development
UT to D'Olive Creek	Tensaw River Apalachee River	Fish & Wildlife	Siltation Habitat Alteration	Land Development
D'Olive Creek	Tensaw River Apalachee River	Fish & Wildlife	Siltation Habitat Alteration	Land Development
UT to Tiawasee Creek	Tensaw River Apalachee River	Fish & Wildlife	Siltation Habitat Alteration	Land Development
Tiawasee Creek	Tensaw River Apalachee River	Fish & Wildlife	Siltation Habitat Alteration	Land Development
Cowpen Creek	Lower Fish River	Swimming, Fish & Wildlife	Metals (Mercury)	Atmospheric Deposition
Fish River	Fish River	Swimming, Fish & Wildlife	Metals (Mercury)	Atmospheric Deposition
			Pathogens	Pasture Grazing

Bay Minette Creek is listed on the 303(d) list as impaired for metals (mercury). The source of this pollutant is identified as unknown. Due to the small area of Baldwin County's MS4 Area located within this watershed and the type of land uses, Baldwin County's MS4 should not be a contributor to the impairment on Bay Minette Creek.

Joes Branch, Tiawasee Creek, Unnamed Tributary to Tiawasee Creek, D'Olive Creek and Unnamed Tributary to D'Olive Creek are listed on the 303(d) list as impaired for siltation and habitat alteration. The source of this impairment is attributed to land development. The entire drainage basin for Joes Branch is located within the corporate limits of Daphne and Spanish Fort and should be addressed in their MS4 Programs. The majority of the drainage basin of Tiawasee Creek and its tributary are located within the corporate limits of Daphne. There are small pockets of the drainage basin located within the County's MS4 Area. The land use within these pockets primarily consists of forested or agricultural and limited amount of residential or commercial.

The majority of the drainage basin of D'Olive Creek and its tributary are located within the corporate limits of Daphne and Spanish Fort. There is a small area located in the headwaters of the drainage basin that is located within the County's MS4 Area. The land use of this area is either forested or agricultural and should not be a significant contributor to the impairment of D'Olive Creek.

Cowpen Creek is listed on the 303(d) list as impaired for metals (mercury). The source of this pollutant is identified as atmospheric. Due to the type of land uses located within this watershed, Baldwin County's MS4 should not be a contributor to the impairment on Cowpen Creek. Figure 1-5 shows the drainage basin, 303(d) listed streams and the areas of the County's MS4 Area.

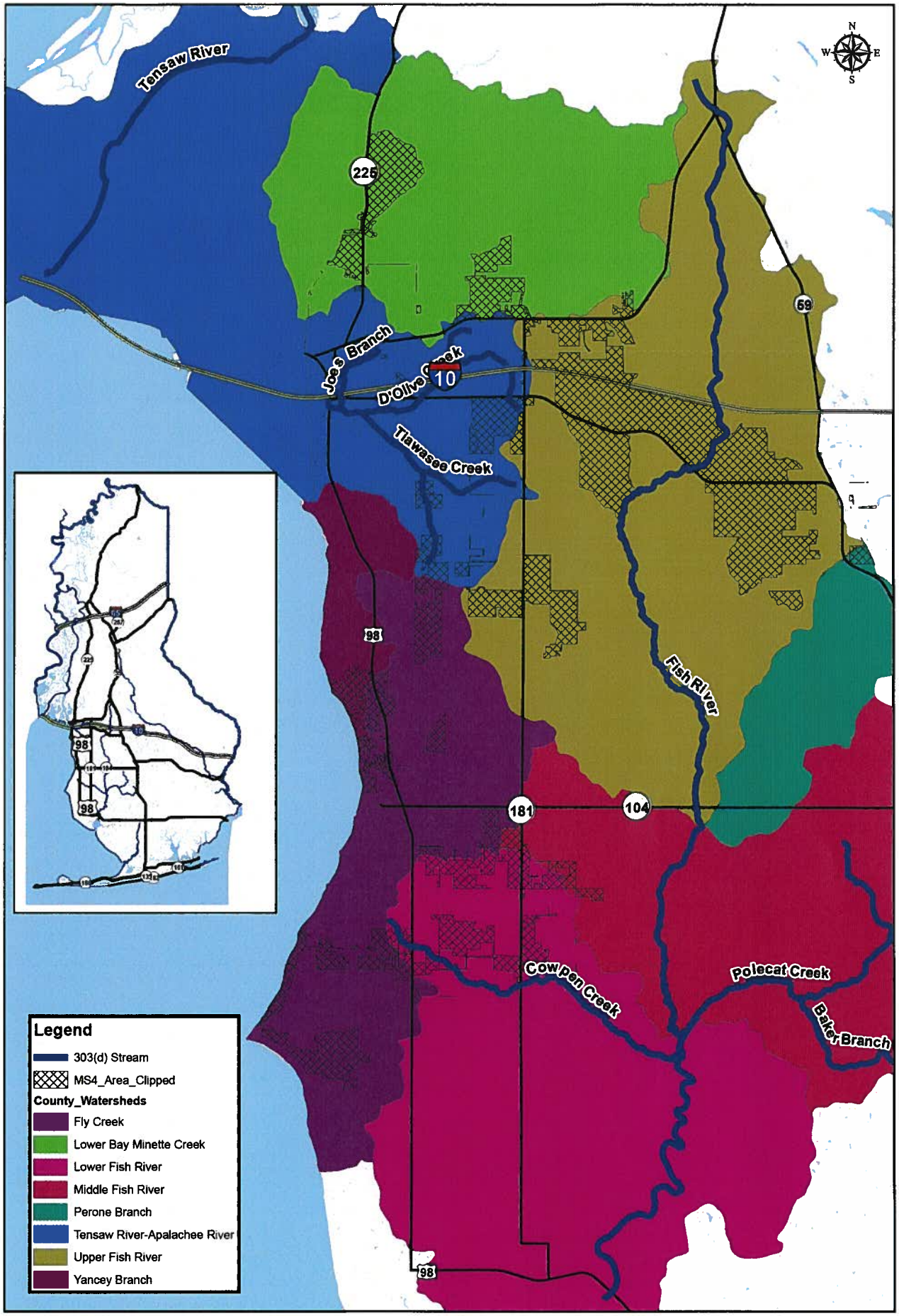


BALDWIN COUNTY MS4 AREA

Watersheds

Figure 1-4

March 2014



BALDWIN COUNTY MS4 AREA

Impaired Streams

Figure 1-5

March 2014

2. Program Evaluation

2.1. Program Objectives

The primary objective of the SWMP is to effectively prohibit the discharge of non-storm water discharges into the MS4 and reduce the discharge of pollutants from the MS4 to the MEP. Baldwin County has implemented, maintained and revised the SWMP as necessary to comply with the requirements of the NPDES permit.

Baldwin County has made significant progress over the past year in implementing its SWMP. Major accomplishments for each Minimum Control Measure are summarized in the following sections.

2.2. Public Education and Outreach

The MS4 NPDES permit requires the County to develop, implement and evaluate a public education and outreach program. Goals of the program are to:

- Educate the community about the impacts of storm water discharges into streams, rivers, lakes and ponds; and,
- Identify steps that the community can take to help reduce pollutants in storm water runoff.

Baldwin County has utilized several media outlets to accomplish these goals.

2.2.1. Local Partnerships

Baldwin County's leadership and staff have been actively involved with environmental and citizen organizations located throughout the County. Previous and current activities include:

- Mobile Bay National Estuary Program;
- Weeks Bay Watershed Project;
- Wolf Bay Watershed Watch; and,
- D'Olive Watershed Project.

To capitalize on education materials and programs that have been developed, Baldwin County has formed partnerships with several state and local organizations including:

- Alabama Department of Environmental Management;
- Alabama Clean Water Partnership;
- Alabama Cooperative Extension System;
- City of Daphne;
- City of Fairhope;
- City of Spanish Fort;
- City of Foley;
- City of Robertsdale;
- Town of Magnolia Springs;
- Town of Silverhill;
- Town of Summerdale;
- Town of Loxley;
- Weeks Bay Preserve;
- Weeks Bay Watershed Project;
- Mobile Bay National Estuary Program;
- Wolf Bay Watershed Watch;
- Alabama Coastal Foundation;
- Perdido Bay Watershed Planning;
- Baldwin County Environmental Advisory Board; and,
- People Against a Littered State.

As the County's MS4 program continues to evolve, the County will seek partnerships with other agencies and organizations to facilitate the public education program.

2.2.2. Brochures

Baldwin County has developed a number of brochures for a variety of audiences and a variety of topics. Currently, most of the brochures are directed towards developers, contractors, and other professionals pertaining to planning, zoning, and construction. Copies of the brochures are available at the Baldwin County Courthouse in Bay Minette and Satellite Courthouses in Foley and Fairhope. Copies of brochures are provided in Appendix A.

2.2.3. Website

The internet provides a very accessible mechanism for making information and data available to residents. The County has developed and maintains a website

(http://www.co.baldwin.al.us) that provides some general information regarding the County's services. Some topics currently presented on the website include the following:

- Contact Us
  - Contact information for all Departments
  - Contact Our Call Center
- Highway Department
  - Department Information
  - County Maintained Roadways
  - Subdivision Regulations
  - MS4 Stormwater Management Plan
  - Permit/Subdivision Forms
- Solid Waste Department
  - Department Information
  - Solid Waste Garbage Collection
  - Landfills
  - Solid Waste Recycling Services
- Planning & Zoning Department
  - Department Information
  - Zoning Ordinances
  - Forms & Applications
  - CRS Flood Insurance Program

The County has coordinated with its CIS department and recently dedicated a specific section of its Highway web site to the MS4 Program and storm water related information.

2.2.4. Workshops

Workshops are useful in educating a specific target audience about a specific topic or issue. Capitalizing on existing training programs, the County is working with its partners to sponsor workshops in a variety of topics. Workshops that have been identified for this permit cycle may include the following:

- Nonpoint Education for Municipal Officials (NEMO) – The County may coordinate with ADEM to evaluate and identify workshops that will be beneficial to the County's leadership.

- Erosion and Sediment Control – The County may evaluate and identify workshops that will be beneficial to city staff, professionals and development community.

- Low Impact Development – The County may evaluate and identify workshops that will be beneficial to County staff, professionals and development community.

As the County's MS4 program continues to evolve, the types and frequency of workshops may be modified to address the changing needs of the County.

2.2.5. Training

The County is very proactive in identifying and participating in educational opportunities that help to expand the knowledge and capabilities of County Staff. County Staff has participated in the following:

- ACCA Annual Conference;
- ACEA Fall County Engineers Meeting
- ALDOT Bridge Inspection Refresher Course;
- 57th Annual Transportation Conference
- ALDOT Guidelines for Grading County Roads
- QCI Training Program
- Innovations in Urban Stream Restoration

A summary of educational activities completed by County Staff are provided in Appendix A. Copies of the QCI training certificates are provided in Appendix D.

2.3. Public Involvement / Participation

The County has participated and supported public involvement opportunities for staff members and residents through numerous activities. Public involvement and participation activities included:

- Baldwin County Water Festival;
- Coastal Kids Quiz;
- Master Environmental Educator Program;
- Watershed Wagon;
- Litter Abatement Programs;
- Public Involvement Opportunities

2.3.1. Baldwin County Water Festival

The mission of the Baldwin County Water Festival was to educate students about all aspects of surface water and groundwater and other related natural resources (such as wetlands, forestry, wildlife and much more) and to instill in them a

general environmental awareness and stewardship ethic. Students and their teachers left increased knowledge and awareness of the importance of precious water resources and on becoming good environmental stewards of these resources. All 4th Grade students in Baldwin County including, public, private, and home schooled students were invited to participate. The festival had total participation over 7,000 participants since 2003.

In recent years, the County provided staff members who actively participated in the festival. The Baldwin County Water Festival was recently discontinued due to a lack of funding.

2.3.2. Coastal Kids Quiz

The Coastal Kids Quiz is an environmental quiz competition for teams of 5th graders in Baldwin and Mobile Counties. Questions are taken from standard science texts and materials provided by the Alabama Coastal Foundation, including brochures and activity books covering coastal environmental issues. The competition has taken place since 2001.

The County provides staff that actively participates in the competition. This is an excellent opportunity to help educate 5th grade students on environmental matters.

2.3.3. Baldwin County Master Environmental Educator

Many County employees have also participated in the Alabama Cooperative Extension Service's Master Environmental Educator (MEE) program. The Baldwin County MEE Program was created in 1995 and is an outreach program of the Baldwin County Extension Office. Volunteers are trained to teach eight environmental lessons pertaining to the most critical environmental issues facing Baldwin County:

- Aquatic Nuisance Species;
- Backyard Wildlife Habitat;
- Energy;
- Groundwater Pollution;
- Invasive Plant Species;
- Nonpoint Source Pollution;
- Recycling; and,
- The Water Cycle.

Volunteers throughout Baldwin County participate in an intensive two-day MEE training each year. Each volunteer gives back at least 20 hours a year to the community. Classroom teachers can request and schedule a lesson, which also correlates to the Alabama Course of Study for Science.

2.3.4. Weeks Bay Reserve Watershed Wagon

The Baldwin County Planning and Zoning Department has worked to help Weeks Bay Reserve implement the Watershed Wagon (Figure 6-2). The Watershed Wagon is a mobile interactive classroom which uses hands-on activities involving the connection between land uses, potential pollution sources, and water quality.

The Wagon also includes a coastal watershed model illustrating the effect of storm water runoff and nonpoint source pollution.

Figure 2-1

Watershed Wagon

2.3.5. Litter Abatement Programs

The County partners with People Against a Littered State (PALS) in order to help implement litter abatement programs. Current litter abatement programs include:

- Adopt-a-Mile;
- Adopt-a-Stream;
- Alabama Coastal Cleanup; and,
- Baldwin County Clean Sweep.

The County currently has a link to apply for Adopt-a-Mile on their website. Citizens can "adopt" a stretch of county roads or federal or state highways.

In the fall of each year, PALS will plan, organize and host The Alabama Coastal Cleanup. The County is an in-kind sponsor with this event. The most recent Alabama Coastal Cleanup was held on September 21, 2013.

Baldwin County Clean Sweep is an activity approved by the Baldwin County Commission which provides county residents a free day to discard any unwanted debris and waste. The event encourages the proper disposal of waste in Baldwin County and discourages illegal dumping and piling of debris on roadways. Baldwin County Clean Sweep was most recently held on January 11, 2014.

2.3.6. Recycling

The County's Solid Waste Department has established 30 recycling locations throughout the County for residents to drop off items. Accepted recyclables include:

- Unwaxed Cardboard;
- Newspapers;
- Magazines;
- Phonebooks;
- Aluminum Cans;
- Aluminum Scrap Metal; and,
- Category 1 through 4 Plastics.

The County also has a used cooking oil recycling program which converts the oil into useable energy and a seasonal Christmas Tree recycling program which contributes material to the County compost program.

2.3.7. Call Center

The County has a call center to receive complaints from its residents. Depending upon the type of complaint, the call center will route information to the appropriate department for evaluation and response. A centralized call center has been established at the Baldwin County Emergency Operations Center in Robertsdale. Telephone contact information is (251) 972-6897.

The call center is provided on the County's website.

2.3.8. Household Hazardous Waste Collection

The County operates a household hazardous waste collection facility at the Magnolia Landfill on a year-around basis. For a fee, residents can dispose of household hazardous waste such as paints, motor oil, pesticides, herbicides, cleaners, solvents, etc.

2.3.9. Waste Cooking Oil Recycling

The County has implemented a cooking oil recycling program and currently collects waste cooking oil at the Magnolia Landfill, MacBride Landfill and Bay Minette Transfer Station. Waste cooking oil has the ability to clog drain pipes and cause extensive damage to the local sanitary sewer system, including pipe breaks and sewage overflows. Residents can drop off waste cooking oil at any location free of charge. The oil is then recycled into biodiesel.

2.3.10. Baldwin County Commission Meetings

All regular meetings of the Baldwin County Commission are advertised and open to the public. Meetings are televised and broadcast on a delayed basis by local cable access stations. In addition, the meetings may be viewed live on the County website. Past meetings are also available on the website, and DVDs of these meetings may be obtained from the Baldwin County Archives Department. Public hearing items are advertised through certified mail and through notices in the newspapers of general circulation within Baldwin County, depending on legal requirements.

2.3.11. Baldwin County Master Plan - 2013

In accordance with Act No. 91-719 (Codified at Section 45-2-261, et seq., Code of Alabama 1975) the Baldwin County Planning and Zoning Commission prepared, and the Baldwin County Commission adopted, the Baldwin County Master Plan – 2013. According to the Act, the County Commission "shall appoint the Planning Commission to make and maintain in an up-to-date manner, a Master Plan for the physical development of the unincorporated areas of Baldwin County. The Master Plan with accompanying maps, plats, charts and descriptive material shall show the Planning Commission's recommendations for the use and development of the unincorporated area of Baldwin County".

The Master Plan consists of seven chapters covering topics such as implementation, composition, intergovernmental relations, parks and recreation and historic preservation. Maps incorporated into the plan include Planning Districts, Current Zoning, Future Land Use, School Locations, Parks and Public

Access and Fire Districts. The final chapter of the Master Plan deals with revision and amendment. The plan is relevant to the MS4 permit in that it includes the enabling legislation for Planning and Zoning authority in Baldwin County.

The Master Plan is intended to be a living document. As such, it is proposed to be reviewed annually in order to determine if revisions and amendments are warranted due to changing conditions. The first review would take place within six months of initial adoption. A second review would be conducted six months later, and subsequent reviews would take place on an annual basis. With regard to future land use, the plan initially calls for non-binding future land use designations in the Planning Districts which have voted their desire to come under the Planning and Zoning authority of the Baldwin County Commission. Future land use designations for specific planning areas and unzoned Planning Districts could be applied during review and amendment processes.

In preparing the Master Plan, the Planning Commission held eight work sessions and two public hearings. The first public hearing was held on July 11, 2013, for the purpose of obtaining public comment. The second public hearing was held on August 1, 2013. At that time, the Planning Commission voted unanimously to recommend approval of the Baldwin County Master Plan – 2013, to the County Commission. The vote of the Planning Commission served as its final report to the Baldwin County Commission for the adoption of the Master Plan.

When the plan was forwarded the County Commission, the first public hearing was held September 3, 2013. The second and third public hearings were held September 17, 2013, and October 1, 2013, with adoption occurring at the October meeting. The public hearings were advertised in the newspapers of general circulation within the County, and a draft copy of the plan was put on the County's website for review. Social media was also used as an advertising tool. The Commission meetings were televised as described above. Three citizens addressed the County Commission during the final public hearing on the Master Plan adoption.

The Master Plan will be studied for revisions beginning in April of 2014.

2.4. Illicit Discharge Detection and Elimination

The County is in the process of developing and implementing an Illicit Discharge Detection and Elimination Program in accordance with the SWMP Plan. The County has been divided into eight (8) watersheds that correspond to major drainage basins located within the County's MS4 area.

An Outfall Reconnaissance Inventory is being designed to locate and record basic characteristics of each outfall. During the inventory process, each outfall

will be screened for the presence of illicit discharge(s). The County's outfall reconnaissance inventory methodology and procedures will be developed in accordance with Chapter 11 of the Illicit Discharge Detection and Elimination guidance manual.

2.4.1. Outfalls Screened

As the County updates the outfall inventory, the breakdown of major and minor outfalls by sub-basin will be updated and a map shall be developed.

Table 2-1
Outfalls Screened by Basin

Basin	Total Outfalls	Major Outfalls	Minor Outfalls
Upper Fish River			
Fly Creek			
Lower Bay Minette Creek			
Lower Fish River			
Tensaw River – Apalachee River			
Yancey Branch			
Middle Fish River			
Perone Branch			
Totals			

An overview of how the outfall reconnaissance inventory is being performed and documented in the County's GIS system is provided in Appendix C.

2.4.2. Spill Response

The County's Emergency Management Agency (EMA) is responsible for responding to any type of spill that may occur within the MS4 Area. If a spill enters the MS4, the EMA will notify the Storm Water Program Coordinator. The Storm Water Program Coordinator will evaluate the impacts of the spill on the MS4 and ensure appropriate corrective measures are taken to abate the spill. Follow up inspections of the affected area shall be performed as needed.

2.4.3. Sanitary Sewer System

Residents within the County's portion of the MS4 boundary are provided sanitary sewer service by one of the following sources;

1) Sanitary Sewer System; or
2) On-Site Sewage Disposal.

When the County observes any problems with sanitary sewer systems, the County reports the problem to the appropriate jurisdiction over system.

As the County acquires data regarding the location of on-site sewage disposal systems, the County will update GIS data and maps to incorporate best available data.

2.4.4. Enforcement

An effective illicit discharge and detection program uses an escalating scale of enforcement action to abate illicit discharges. Due to limited home rule, Baldwin County does not have the authority to create or adopt an Illicit Discharge Ordinance. Through the subdivision regulations and education, the County is encouraging the prevention of illicit discharges. The current procedure is to report illicit discharge complaints to the appropriate agency such as the Baldwin County Health Department or ADEM. In addition, the County can only maintain what is in the County right-of-way. It cannot maintain private subdivision storm water systems.

2.4.5. Standard Operating Procedures

The County has developed Standard Operating Procedures (SOPs) for the various activities required for implementing the Illicit Discharge Detection and Elimination Program. SOPs shall include but are not limited to the following:

- Sampling equipment use, maintenance and storage;
- Outfall Reconnaissance Inventory;
    - Field procedures
    - Data collection
    - Data management
    - Sample Collection
- Illicit discharge evaluation; and,
- Hazardous materials.

SOPs shall be included in the Appendix C.

2.5. Construction Site Storm Water Runoff Control

Baldwin County has developed and continuously implemented a Construction Site Runoff Program to monitor and control pollutants in stormwater discharges to the MS4 from the following land disturbing activities.

- Minor Project – Land disturbance activities less than one (1) acre limited to single family homes and accessory structures;
- Major Project – Land disturbance activity equal to or greater than one (1) acre or land disturbance involving less than one (1) acre that is part of a larger common plan of development; and,
- All other land disturbance activities that is not exempted from obtaining a permit. Land disturbing activities that are exempted from obtaining a permit are defined in Section 13.13.10 of the Baldwin County Zoning Ordinance.

2.5.1. Requirements and Control Measures

The County's Construction Site Runoff Program requires owners and/or operators of construction sites to select, design, install, implement, inspect and maintain effective Best Management Practices (BMPs) to minimize the discharge of pollutants into the MS4 to the maximum extent practicable (MEP).

2.5.2. Permitting, Plan Review, Construction Site Inventory and Inspections

The County has developed SOPs and check list to assist with the implementation of its Construction Site Storm Water Runoff Control Program. Documents include the following:

- Land Disturbance Permitting and Plan Review
- Construction Site Inventory
- Construction Site Inspections

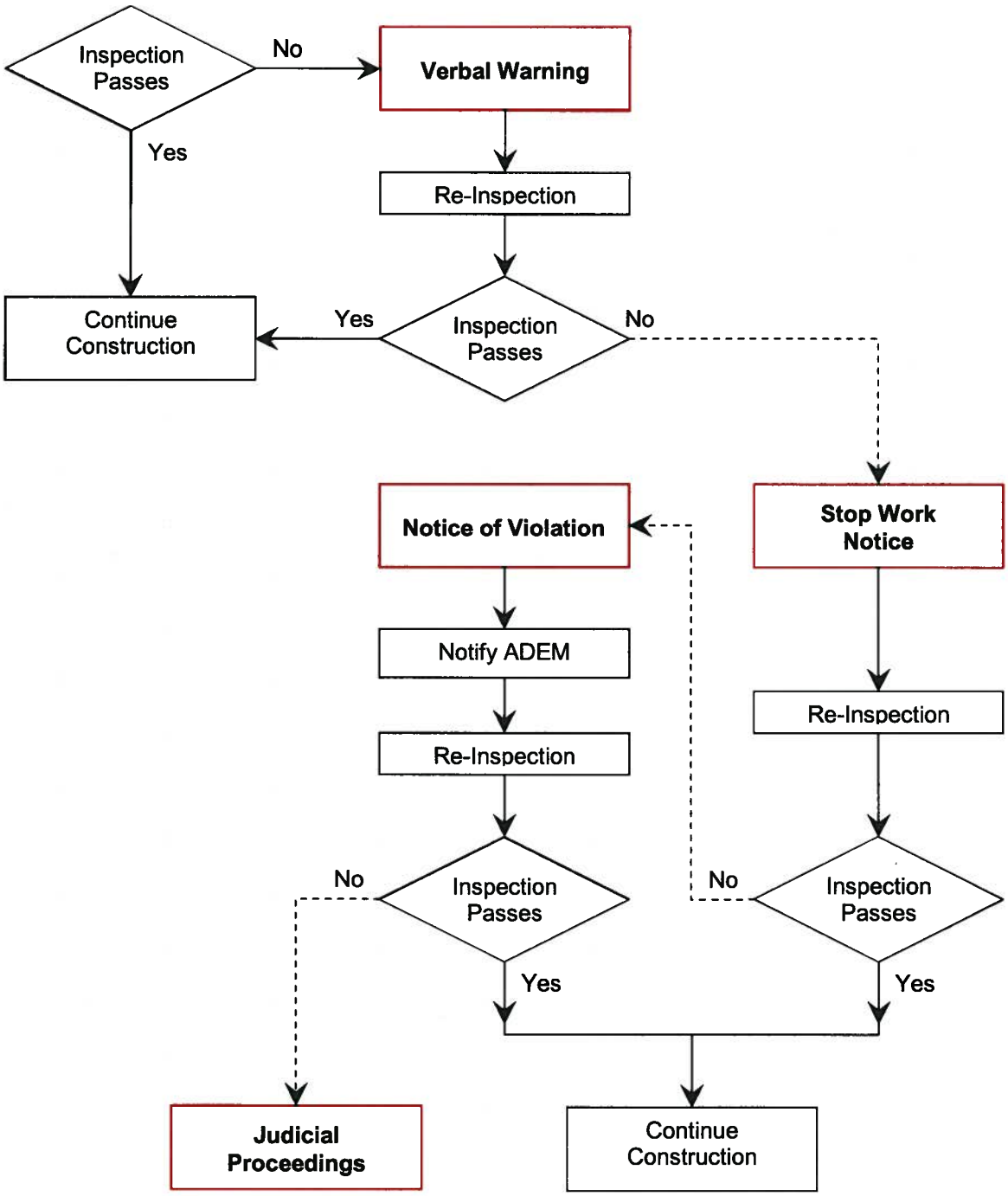
During the current reporting year, 18 Single Family and one (1) Commercial Land Use Certificate were issued in the MS4 area. An example of each is included under Appendix D.

2.5.3. Enforcement

The Erosion Control section of the Zoning Ordinance provides the Code Enforcement Officer with an escalating scale of enforcement action for violation of any provision in the ordinance. A flow chart showing the escalating scale of enforcement action is provided in Figure 2-2 .

There were no violations issued during the current reporting period.

Figure 2-2
Enforcement Action Flow Chart



2.5.3. Training

The Planning and Zoning Department and Highway Department have been tasked with the responsibility of implementing the Construction Site Runoff Program. Thirty-one (31) inspectors maintain current certification as a Qualified Credentialed Inspectors (QCI). County staff attended a four (4) hour refresher training course provided by ALDOT. This training seminar was available to county and municipal staff. Additionally, Thompson Engineering provides a QCI initial eight (8) hour and refresher four (4) hour classes that are available to county, municipal, contractors, engineers and anyone else needing the obtain a QCI certification.

A listing of the current QCI trained inspectors is provided in Appendix D.

2.6. Post-Construction Storm Water Management

Post construction storm water management involves the implementation of structural and/or non-structural BMPs to provide permanent storm water management over the life of a property's use. The County is in the process of evaluating and identifying BMPs that are suitable for this area and are within the County's regulatory control.

2.6.1. Low Impact Development

Where feasible, the County has encouraged developers to utilize Low Impact Development (LID) and/or green infrastructure BMPs to minimize the post construction impacts of storm water runoff. The County will continue to evaluate and identify the most appropriate LID BMPs.

2.6.2. Development Regulations

The County has developed a comprehensive process to implement and enforce controls that help reduce pollutants in storm water runoff. Documents used to define this process as well as the requirements for development within the County include.

- Zoning Ordinance; and,
- Subdivision Regulations.

A detailed description of these documents is provided in Section 1 of the SWMP Plan. The County has incorporated various Overlay Districts within the Zoning

Ordinance to provide additional protection of the County's natural resources. Overlay Districts include

- Flood Hazard Overlay District;
- Wetland Protection Overlay District; and,
- Gulf Beach Overlay District.

The Wetland Protection Overlay District requires a minimum buffer of 30 feet from a wetland. Regulations governing the Overlay Districts are contained in Article 10 of the Zoning Ordinance.

The County has developed a master plan that evaluates the existing land uses, development patterns and natural resources within the County. The County's zoning ordinance and subdivision regulations provide a mechanism to implement a post-construction storm water management program. Non-structural BMPs include but not limited to the following.

- Develop design standards;
- Develop plan review and approval procedures;
- Develop post construction BMP evaluation and inspection procedures; and,
- Develop BMP maintenance requirements.

The subdivision regulations already contain a provision to address the quantity of post developed storm water runoff.

2.6.3. Conservation Development

The County has developed regulations and requirements for a Conservation Development. The purpose of a Conservation Development is to provide a development option that permits flexibility of design in order to promote environmentally sensitive and efficient uses of the land. This development option was created to:

- Preserve in perpetuity unique or sensitive natural resources such as groundwater, floodplains, wetlands, streams, steep slopes, woodlands, and wildlife habitat;

- Preserve important historic and archaeological sites;

- Permit clustering of houses and structures on less environmentally sensitive soils which will reduce the amount of infrastructure, including

paved surfaces and utility easements necessary for residential development;

- Reduce erosion and sedimentation by minimizing land disturbance and removal of vegetation in residential development through a reduced building footprint;
- Promote contiguous greenways and corridors throughout the community;
- Promote contiguous green space with adjacent jurisdictions;
- Encourage interaction in the community by clustering houses and orienting them closer to the street, providing public gathering places and encouraging use of parks and community facilities as focal points in the neighborhood;
- Encourage street designs which reduce traffic speeds and reliance on major arteries;
- Promote construction of convenient landscaped walking trails and bike paths both within the subdivision and connected to neighboring communities, businesses, and facilities to reduce reliance on automobiles;
- Conserve scenic views and reduce perceived density by maximizing the number of houses with direct access to and views of open space;
- Preserve prime agricultural and forest lands and reduce the economic pressures of converting such land to urbanized uses.

Regulation governing Conservation Developments are contained in Article 11 of the Zoning Ordinance.

2.6.4. Post Construction BMPs

As the County's post construction storm water management program develops, the County will evaluate and identify the most appropriate BMPs. A design rainfall event with an intensity up to a 2-year, 24-hour storm event shall be the basis for the design and implementation of post-construction water quality BMPs.

2.6.5. Operation and Maintenance

In order for post developed BMPs to be effective, routine maintenance of the BMP will be required. The County is in the process of evaluating mechanisms that can be utilized to ensure proper maintenance of the BMPs.

2.6.6. Tracking System

As post development BMPs are implemented, the County is in the process of developing a tracking and inspection system to ensure that BMPs continue to function properly.

2.6.7. Training

Several Departments provide assistance in implementing the County's Post Construction Storm Water Management program including the Highway Department, Building Inspections Department and Planning and Zoning Department. The County is continually evaluating potential training programs, activities and/or materials that can be used to educate the County's staff in storm water related issues.

2.7. Pollution Prevention / Good Housekeeping

The pollution Prevention / Good Housekeeping Program is a key element to help the MS4 to reduce potential pollutants from entering storm water runoff. This control measure requires the County to evaluate existing facilities and operations to identify areas of improvement that will help ensure a reduction in the amount and type of potential pollutants.

2.7.1. Facility Inventory

The County is currently assessing its inventory of County facilities and areas that have a potential to interact with storm water runoff. Once the facility inventory is completed, the County will develop a map identifying the facilities location with respect to water bodies. A comprehensive list and map of County facilities will help county employees build a better awareness of their locations within the MS4 and their potential to contribute pollutants in storm water runoff. Baldwin County has two (2) facilities located in the Fairhope MS4 area, but none within the County MS4 area.

2.7.2. Facility Assessments

A comprehensive facility assessment is necessary to identify the facilities most likely to contribute storm water pollutants and the facilities in need of storm water controls. The facility assessments will involve a detailed site inspection to identify improperly stored materials, activities that should not be performed outside, and poor housekeeping practices.

2.7.3. Structural Controls

The County maintains approximately 93.38 miles of paved roads, approximately 0.08 miles of unpaved roads and nine bridges within the County's MS4 Area. The storm sewer system associated with these roads consist of box culverts, side drains, cross drains and storm sewer systems. Box culverts, cross drains and side drains are typically located along the roads to convey stormwater either underneath the road or along the road. Storm sewer systems are typically located within residential developments.

A summary of the storm sewer system components located within the County's MS4 area is presented in

Table 2-2 and Table 2-3

Table 2-2
Storm Sewer Inlet Inventory

Inlet Type	Number (ea)	Inlet Type	Number (ea)
Grate Inlet	9	Double Wing	354
Junction Box	95	Yard	63
Singe Wing	258	Slotted Drain	15

Table 2-3
Storm Sewer Pipe Inventory

Pipe Shape	Pipe Size (in)	Number (ea)	Length (ft)	Pipe Size (in)	Number (ea)	Length (ft)
Arch	18 X 11	1	64	58 X 36	2	276
	29 X 18	5	155	73 X 45	1	26
	36 X 23	2	143	88 X 54	1	238
	51 X 31	2	324			
Circular	12	2	926	30	71	9,347
	15	8	1,486	36	85	10,108
	18	290	28,287	42	17	2,254
	21	132	13,653	48	8	1,257
	24	159	22,337	54	2	361
	27	39	5,726	60	3	416
Elliptical	14 X 23	13	752	32 X 49	4	621
	19 X 30	7	687	34 X 53	3	341
Elliptical	22 X 34	5	494	38 X 60	1	84
	24 X 38	6	692	43 X 68	2	216
	29 X 45	2	138			

A summary of the cross drain pipes located within the County's MS4 area is presented in Table 2-4.

Table 2-4
Cross Drain Pipe Inventory

Pipe Shape	Pipe Size (in)	Number (ea)	Length (ft)	Pipe Size (in)	Number (ea)	Length (ft)
Arched	18 X 11	5	157	51 X 31	6	263
	22 X 13	1	16	58 X 36	3	72
	29 X 18	31	1,110	65 X 40	2	30
	36 X 23	23	898	73 X 45	2	78
	44 X 27	11	289			
Circular	12	3	115	36	3	60
	15	7	242	42	4	200
	18	67	2,966	48	5	267
	21	11	356	54	1	27
	24	49	1,635	60	3	75
	27	13	335	84	1	23
	30	15	383	96	1	43
Elliptical	14 X 23	18	681	27 X 42	1	82
	19 X 30	1	19	38 X 60	1	27
	24 X 38	2	95	43 X 68	1	12

2.7.3.1. Data Management

The County has a dedicated GIS/CIMS manager responsible for obtaining, developing, and maintaining the County's Graphic Information System (GIS) data and system. The County's GIS data includes mapping layers for box culverts, storm sewer pipes, storm sewer inlets and cross drain pipes.

Select attribute data for mapping layers used by the County include, but are not limited to, the following:

- Pipe shape;
- Material type;
- Number of barrels;
- Pipe size;
- Rip rap at inlet and/or outlet;
- Condition;
- Markers;
- Pipe length; and,
- Photographs.

The County has an on-going effort to update and maintain the information and data contained in the GIS system. To complement the GIS system, the County uses a Computer Information Management System (CIMS) to track time and activities associated with inspection and maintenance. County staff involved with maintenance will complete a Maintenance Activity Sheet on a daily basis that identifies where and what work was completed as well as whom and the equipment used to complete the work. Maintenance activities can include:

- Structure clean out of leaves, sediment, floatables, and other debris;
- Mowing, clearing, or overhead limb removal in order to prevent drain blockage or reduced storm water flow;
- Regrading of swales and ditches to allow for proper storm water flow;
- Grass seeding/planting to prevent erosion;
- Replacing or repairing any reflective markers at cross drains; and,
- Replacing storm water structures.

This information is entered into the CIMS database. The CIMS Program provides the County with the ability to create activity reports that summarize the work performed on each structure for a time period of interest.

2.7.3.2. Inspections

The County has begun performing an inspection of all structural storm water conveyance structures for this year. These inspections include, but are not limited to:

- Drainage elements such as ditches, erosion, pipe or drain condition, and any settlement occurring which may affect drainage watercourse;
- Shoulder roadside elements such as clearing, mowing, or encroachments maintenance;
- Percentage of overhead limbs on the roadway.

2.7.4. Roadways

The County has implemented and maintained BMPs to provide a means of mitigating the negative impacts of various pollutants that can be carried off by rainfall and receiving waters.

The County maintains approximately 93.38 miles of paved roads, approximately 0.08 miles of unpaved roads and 9 bridges within the County's MS4 Area. The majority of roads located within the County's MS4 Area have open grassed drainage swales that parallel both sides of the road.

2.7.4.1. License Agreement

If a landowner(s) want to perform some type of modification or work on a County Right-of-Way (ROW), the County has established a process where the landowner(s) will execute a License Agreement with the County. The License Agreement defines the work or modifications that will be performed and who is responsible for maintenance of the work or modifications. This mechanism prevents a landowner(s) from performing any work within a ROW without the prior written approval from the County's Highway Department. Types of work allowed under the License Agreement include the following:

- Drainage improvements;
- Road improvements; and,
- ROW clearing.

The License Agreement does allow for beautification projects within the landowner's portion of the ROW. This year the County executed and inspected one (1) License Agreement within the MS4 area during the current reporting year.

2.7.4.2. Road Inspections

The County has begun performing its inspections of all paved and unpaved County roads for its biennial (two-year) basis. These inspections include, but are not limited to:

- Surface treatment elements such as surface treatment type, patching, edge repairs, and leveling;
- Shoulder conditions;
- Drainage elements such as ditches, erosion, pipe or drain condition, and any settlement occurring which may affect drainage watercourse;
- Shoulder roadside elements such as clearing, mowing, or encroachments maintenance;
- Traffic control elements including signage and striping; and,
- Percentage of overhead limbs on the roadway.

As problems are identified that require immediate attention, the inspector will complete a Problem Request and schedule the necessary repairs. The need for repairs will be identified as Urgent, Priority, or Routine and addressed as follows:

- Urgent – Schedule the repairs within the same day.
- Priority – Schedule the repairs within the next 3 days.
- Routine – Schedule the repairs within the next 5 days

2.7.4.3. Bridge Inspections

Bridges for County roads are typically inspected on a bi-annual basis in accordance with NBIS standards.

2.7.4.4. Mowing

The County has crews dedicated to roadway maintenance. Typically County ROWs are mowed a minimum of three times per season (April 1st through September 30th). Roads with higher traffic volumes or major corridors may be mowed more frequently.

2.7.4.5. Litter Control

Roadside litter control BMPs implemented by the County to address health and aesthetic concerns also improve the quality of stormwater runoff by limiting trash in runoff conveyance systems. BMPs implemented by the County include:

- Regular litter, trash and debris removal and disposal;
- Sponsoring Adopt-a-Road program; and,
- Public education.

The County's Solid Waste Department has four (4) to five (5) dedicated litter crews with one County employee serving as supervisor and two to three inmates serving as laborers. The litter crew produces a daily and weekly report summarizing the areas which were cleared of litter and tracks the amount of waste on a spreadsheet. Copies of the daily and weekly litter reports are provided in Appendix F. Between October of 2012 and September of 2013, 158.21 of litter were collected. Data for the period from October, 2013, through March, 2014, is not currently available.

The County supports the Adopt-a-Mile program in conjunction with the Alabama Department of Transportation (ALDOT) and People Against a Littered State (PALS). The County's website contains a link to redirect the user to the PALS website and Adopt-a-Mile registration. Currently, 6 miles of County roads within the MS4 Area are a part of the Adopt-a-Mile program.

2.7.4.6. Resurfacing

County roads with deteriorated paved surfaces are typically overlaid with new asphalt or milled, reclaimed, and replaced with new asphalt paving, depending on the deterioration cause. During the current reporting year, 4.41 miles of resurfacing were completed in the MS4 area.

2.7.4.7. Deicing Activities

Based upon the County's location, winter weather is infrequent. The County spreads sand on roads with snow or ice cover. After winter weather has subsided, the County removes the sand using a small front end loader and a street sweeper. One (1) deicing activity was completed in the MS4 area as a result of a winter storm during late January of 2014.

2.7.5. Training

The County is evaluating and developing a training program to educate County employees on how to incorporate pollution prevention / good housekeeping practices into County operations and facilities. Training topics may include the following.

- Federal and State storm water regulations;
- Storm water pollution prevention plan requirements;
- Significant materials and storage practices;
- Best Management Practices (BMPs);
- Non storm water discharges and evaluations;
- Site inspection and documentation protocols;
- Application of pesticides, herbicides and fertilizers;
- Road maintenance BMPs; and,
- Facility specific standard operating procedures.

To minimize the cost and resources associated with training, the County anticipates utilizing training programs and materials that have already been developed by EPA, ADEM and/or other readily available sources.

2.7.6. Flood Management

The NPDES permit requires the County to evaluate flood management projects for incorporation of additional water quality protection devices and practices to help improve water quality. If flood management projects are proposed within the County's MS4 area, the County will evaluate the projects for the potential incorporation of water quality features.

2.7.6.1. Community Rating System (CRS)

The National Flood Insurance Program (NFIP) provides federally backed flood insurance that encourages communities to enact and enforce floodplain regulations. To be covered by a flood insurance policy, a property must be in a community that participates in the NFIP. Baldwin County has been participants since 1978 and currently holds a Class 6 Building Code Effectiveness Grading Schedule (BCEGS) grade for One & Two Family dwellings and Commercial & Industrial buildings.

The Community Rating System (CRS) Program is a point based system which provides incentives for communities to do more than simply regulate construction of new buildings to minimum national standards. Under CRS, flood insurance premiums are adjusted to reflect community activities which reduce flood damage to existing buildings, manage development in areas not mapped by the NFIP, protect new buildings beyond the minimum NFIP protection level, help insurance agents obtain flood data and help people obtain flood insurance.

The objective of the CRS program is to reward communities that are doing more than meeting the minimum NFIP requirements to help citizens prevent or reduce flood losses. The goal of the CRS program is to encourage, by the use of flood insurance premiums adjustments, community and state activities beyond those required by the NFIP.

Baldwin County has voluntarily participated in the Community System Program since 1995 and currently enjoys a Class 6 rating which represents a savings of 20% for Special Flood Hazard policies and 10 % for standard risk policies.

The CRS program is broken down into 18 creditable activities as follows:

Public Information Activities

- Elevation Certificates
- Map Information Service
- Outreach Projects
- Hazard Disclosure
- Flood Protection Information
- Flood Protection Assistance

Mapping & Regulatory Activities

- Additional Flood Data
- Open Space Preservation
- Higher Regulatory Standards
- Flood Data Maintenance

- Stormwater Management

Flood Damage Reduction Activities

- Floodplain Management Planning
- Acquisition and Relocation
- Flood Protection
- Drainage System Maintenance

Flood Preparedness Activities

- Flood Warning Program
- Levee Safety
- Dam Safety

Baldwin County provides public information to advise property owners, potential property owners, and visitors about hazards, ways to protect people and property from the hazards, and the natural beneficial functions of floodplains. Activities include flood determinations and technical assistances, public outreach and education, and real estate disclosure.

As a requirement of the CRS Program, Baldwin County must submit an annual recertification report each year. During the most recent recertification period, 303 notices were sent to property owners.

2.8. Monitoring Plan

In December 2011, the County was re-designated from a Phase I MS4 to a Phase II MS4. In April 2012, the Census Bureau released updated Urbanized Areas based on the 2010 Census. As a result of the 2010 Census the Daphne-Fairhope Urban Cluster was changed to the Daphne-Fairhope Urbanized Area and it boundaries expanded along the I-10 corridor.

Since the MS4 Area for the County has changed significantly, the County is still evaluating its MS4 Area with respect to the existing known problems as described in Section 2 of the SWMP Plan to determine if any type of monitoring should be performed within the County's MS4 Area. Results of this evaluation will be summarized in the 2015 MS4 Annual Report.

3. Summary Tables

Part V.C. of the NPDES permit requires that yearly activities performed by the County be summarized in a report. The purpose of the table is to document in a concise form the program activities, and permitee's compliance status with quantifiable permit requirements. The following tables in this section provide a summary of the Baldwin County's MS4 program activities.

3.1. Public Education and Outreach

Requirement	SWMP Activity Schedule		
	Required	Complied	Accomplished
Local Partnerships	Mobile Bay National Estuary Program Participation	Yes	Provided Support and Participation
	Weeks Bay Watershed Project Participation	Yes	Provided Support and Participation
	Meet w/ Spanish Fort, Daphne & Fairhope	Yes	Meeting Planned
	Identify additional partnerships	Yes	Actively Seeking Partnerships
Brochures	Maintain Display at County Facilities	Yes	Displayed at County Courthouses and on Website
	Evaluate Target Audiences	Yes	Evaluation ongoing
	Evaluate Pollution Sources	Yes	Evaluation ongoing
	Develop New Brochures	Yes	In process of developing
	Identify Public Events for Distribution	Yes	Actively Seeking Events
News Articles	Maintain Inventory of Articles	Yes	Articles on Website
Website	Incorporate Storm Water Page	Yes	Planning in progress
Workshops	Evaluate Workshop Topics	Yes	Evaluation ongoing

	NEMO Workshop	Yes	Video Training
	Erosion Control Workshop	Yes	31 Employees QCI Certified
	LID Workshop	Yes	Planning Workshop
Training	Evaluate Training Needs	Yes	Evaluation Ongoing
	Identify Training Programs / Materials	Yes	Actively Seeking Training Programs and Materials
	Conduct Training	Yes	Ongoing

Comments:

1. Supporting information for Public Education is provided in Appendix A.

3.2. Public Involvement / Participation

Requirement	SWMP Activity Schedule		
	Required	Complied	Accomplished
General Activities	Maintain Call Centers	Yes	Maintained Daily
	Adopt-a-Mile Program	Yes	6 Miles Adopted
	Coastal Clean-up and Baldwin County Clean Sweep	Yes	Provided Support
	Adopt-a-Stream Program	Yes	Program Developed
	Stream Signage	Yes	Streams signed at bridges
	Storm Drain Marking Program	Yes	Developing Program
	Recycling Program	Yes	30 Recycling locations 785.56 Tons Collected
	Household Hazardous Waste Collection	Yes	2,899 gallons collected
	Waste Cooking Oil Recycling	Yes	Totals yet to be determined
Education Events	Baldwin County Groundwater Festival	Yes	Event Canceled (Lack of funding)
	Coastal Kids Quiz	Yes	Provided Support
	Environmental Educator Program	Yes	Provided Support
	Watershed Wagon	Yes	Provided Support
	Erosion Control Workshop	Yes	31 Employees QCI Certified

Comments:

1. Supporting information and data associated with the Public Involvement / Participation is provided in Appendix B.

3.3. Illicit Discharges Detection and Elimination

Requirement	SWMP Activity Schedule		
	Required	Complied	Accomplished
Legal Authority	Develop Illicit Discharge Ordinance	Yes	Lack Legal Authority
	Adopt Illicit Discharge Ordinance	Yes	Lack Legal Authority
Data Acquisition	County GIS Data	Yes	System updated
Outfall Inventory	Schedule	Yes	Schedule Completed
	Inspection Form	Yes	Form Developed
	Map	Yes	Developing map
	Inventory	Yes	Inventory ongoing
Illicit Discharges	Complaint Tracking System	Yes	Tracking System Developed
	Illicit Discharge Inspection Form	Yes	Form Developed
	Complaints	Yes	1 Complaint
	Illicit Discharge Investigations	Yes	1 Investigation completed
Standard Operating Procedures	Sample equipment use, maintenance	Yes	SOP Developed
	Outfall Reconnaissance Inventory	Yes	SOP Developed
	On-site sewer disposal system evaluation	Yes	SOP Developed
	Sanitary sewer overflow evaluation	Yes	SOP Developed

Comments:

1. Information and data associated with the Illicit Detection and Elimination are provided in Appendix C.

3.4. Construction Site Runoff

Requirement	SWMP Activity Schedule		
	Required	Complied	Accomplished
Legal Authority	Erosion and Sediment Control Ordinance	Yes	Lack Legal Authority
	Subdivision Regulations	Yes	Regulations Being Evaluated
Permitting	Develop SOP	Yes	SOP Developed
	Develop Land Disturbing Activity Application Form	Yes	Application Developed
	Track Number and Type of Permits	Yes	18- Single Family and 1-Commercial Land Use Certificates Issued
Plan Review	Develop SOP	Yes	SOP Developed
	Develop Review Checklist	Yes	Check list Developed
	Develop Erosion Control Plan Requirements	Yes	Provided in Subdivision Regulations
	Track Number of Plans Reviewed	Yes	1 Commercial
Inspections	Develop SOP	Yes	SOP Developed
	Develop Inspection Form	Yes	Developing Form
	Track Number and Type of Inspections	Yes	3 Commercial Site Inspections
Enforcement Actions	Track Number and Type	Yes	No Notices of Violation Issued
Training	QCI Training	Yes	31 Inspectors Certified

Comments:

1. Supporting information for the Construction Site Storm Water Runoff Program are provided in Appendix D.

3.5. Post-Construction Storm Water Management

Requirement	SWMP Activity Schedule		
	Required	Complied	Accomplished
Legal Authority	Develop Post Construction Storm Water Management Ordinance	Yes	Lack Legal Authority due to Limited Home Rule
	Adopt Post Construction Storm Water Management Ordinance	Yes	Lack Legal Authority due to Limited Home Rule
	Subdivision Regulations	Yes	Evaluating Regulations
	Zoning Regulations	Yes	Evaluating Regulations
Low Impact Development	Evaluate LID Practices	Yes	Evaluation in process
	LID Policy	Yes	Evaluation in process
Non-Structural BMPs	Develop Plan Review Procedures	Yes	Development of non-structural BMP plan review, inspection and maintenance requirements are ongoing
	Develop Inspection Procedures	Yes	
	Develop Maintenance Requirements	Yes	
Structural BMPs	Evaluate and Identify BMPs	Yes	Development of structural BMPs, design standards and check list requirements are ongoing
	Develop Design Standards	Yes	
	Develop Review Checklist	Yes	
Inspections	Develop SOP	Yes	Development of inspection program is ongoing
	Develop Tracking System	Yes	
	Track Number and Type of Inspections	Yes	
Training	Evaluate Training Needs	Yes	Evaluation in process
	Identify Training Sources	Yes	Actively seeking sources
	Conduct Training	Yes	Ongoing

Comments:

1. Supporting information for the Post-Construction Storm Water Management Program are provided in Appendix E.

3.6. Pollution Prevention / Good Housekeeping

Requirement	SWMP Activity Schedule		
	Required	Complied	Accomplished
Facility Inventory	Identify County Facilities and Operations	Yes	Inventory Ongoing
	Inventory Industrial and Commercial Facilities	Yes	
Facility Assessment	Develop Facility Evaluation Form	Yes	Development of facility evaluations requirements are ongoing
	Conduct Facility Evaluation	Yes	
	Prioritize Facilities	Yes	
	Develop Facility Recommendations	Yes	
	Develop Schedule for Implementation	Yes	
Standard Operating Procedures	Bridge Inspection / Maintenance	Yes	SOPs Developed
	Dirt Road Inspection / Maintenance	Yes	
	Paved Road Inspections / Maintenance	Yes	
	Right-of-Way Maintenance	Yes	
	Facility Inspections	Yes	
Training	Evaluate Training Needs	Yes	Evaluation in process
	Identify Training Resources	Yes	ALDOT, Alabama Technology Center
	Implement Training	Yes	ALDOT QCI Course – 31 Attendees
Flood Management	Review Flood Projects	Yes	Evaluations ongoing

3.6.1. Structural Controls

Requirement	SWMP Activity Schedule		
	Required	Complied	Accomplished
Data Management	Storm Sewer Pipe Inventory	Yes	Inventory Completed
	Storm Sewer Inlet Inventory	Yes	Inventory Completed
	Cross Drain Pipe Inventory	Yes	Inventory Completed
Inspections	Drainage Swales	Yes	Inspections ongoing
	Storm Sewer Pipe & Inlets	Yes	Inspections ongoing
	Cross Drain Pipe	Yes	Inspections ongoing
Cleaning and Maintenance	Drainage Swales	Yes	Maintenance Ongoing
	Storm Sewer Pipe	Yes	Maintenance Ongoing
	Cross Drain Pipe	Yes	Maintenance Ongoing

3.6.2. Roadways

Requirement	SWMP Activity Schedule		
	Required	Complied	Accomplished
GIS Data	Road and Bridge Inventory Update	Yes	Inventory Updated
Roadway Design	Plan Reviews	Yes	1 Plan Review
License Agreements	License Agreements Executed	Yes	1 Agreement Executed
Inspections	Paved Roads	Yes	Inspections in Progress
	Unpaved Roads	Yes	All Roads Inspected
	Bridges	Yes	7 Inspections Completed
Roadway Maintenance	Mowing ROW	Yes	4 cycles completed
	Adopt-A-Road	Yes	No Roads Adopted
	Litter Control	Yes	158.21 Tons Picked-Up
Roadway Repair	Resurfacing - Overlay	Yes	4.41 Miles Resurfaced
	Resurfacing – Milled with new asphalt	Yes	0 Miles Resurfaced
Deicing Activities	Deicing Events	Yes	1 Event

Comments:

1. Supporting information and data associated with the Pollution Prevention / Good Housekeeping Program is provided in Appendix F.

4. MS4 Program Modifications

4.1. SWMP Plan Update

The County has completed an annual review of its Storm Water Management Plan. Revisions and modifications to the SWMP are summarized below.

- Cover page;
- Updated Section 1. Program Administration;
- Updated Table 1-1 Program Revision Record;
- Updated Figure 1-2 SWMP Organizational Chart;
- Updated Signatory Page;
- Updated Local Partnerships section;
- Updated Brochures section;
- Updated Website section;
- Updated Workshops section;
- Updated Table 4-2 Public Education and Outreach Program Goals;
- Updated Baldwin County Water Festival section;
- Updated Litter Abatement Programs section;
- Updated Call Center section;
- Added section for Baldwin County Commission Meetings;
- Updated Table 5-1 Public Involvement / Participation Program Goals;
- Updated Sanitary Sewer Systems section (6.11.1);
- Updated Enforcement Section (6.12);
- Updated Standard Operating Procedures section;
- Updated Table 6-3 Illicit Discharge Detection and Elimination Program Goals;
- Updated Table 8-1 Post Construction Storm Water Management Program Goals;
- Updated 9.2.3.1. GIS Data
- Removed 9.2.3.8. Street Sweeping, Renumbered Subsequent Sections;
- Added 9.2.6.1. Community Rating System (CRS);
- Updated Table 9-6 Pollution Prevention/Good Housekeeping Program Goals;
- Updated Table 9-8 Roadways – Program Goals; and,
- Updated Appendix A: Baldwin County Zoning Ordinance and Baldwin County Master Plan – 2013.