

2014-2015 Phase II MS4 Annual Report



**The City of Satsuma
Phase II NPDES MS4 Permit Number ALR040046
5464 Old Highway 43
Satsuma, Alabama 36572**

Technical Assistance by:



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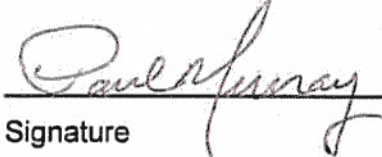
APPENDICES:

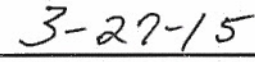
- A. Screening Map and Field Screening Test and Results
- B. Website snapshots
- C. Steele Creek Lodge signs
- D. Ordinance 509- Storm Water Ordinance
- E. Public Works Timesheets
- F. Subdivision Regulations
- G. Ordinance 413- Flood Ordinance
- H. Contract with Jerdan Services, Inc.
- I. Public Safety PGO
- J. Hazard Spill Incident Report
- K. Contract with IDS-Storm debris removal

1.0 Certification

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

The Honorable Paul Murray
Mayor, City of Satsuma


Signature


Date

2.0 General Introduction

On November 16, 1990, the U.S. Environmental Protection Agency (EPA) promulgated regulations, under the Water Quality Act of 1987, setting forth application requirements for National Pollutant Discharge Elimination System (NPDES) storm water permits. The Alabama Department of Environmental Management (ADEM) administers the storm water program for the State of Alabama. In 1999, EPA promulgated regulations establishing Phase II of the municipal separate storm sewer system (MS4) NPDES program. The Phase II program extends coverage of the NPDES storm water program to regulated “small” MS4s. A regulated “small” MS4 is located within an “urbanized area” as defined by the Census Bureau or as designated by the NPDES permitting authority.

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

2.1 Site Description

The City of Satsuma is located just south of the I-65 and Highway 43 intersection in Mobile County, Alabama. Established in 1959, the community now serves as a suburb for the City of Mobile. Though Satsuma is geographically small (6.5 sq. miles), its population has experienced significant growth in recent years. The current population, according to the 2010 census, is 6,168. With creeks and waterways on one side, Satsuma has become a gateway to the Mobile Delta and the Mobile River.

2.2 Water Quality Concerns

The City of Satsuma has four receiving waters to which the MS4 discharges to:

- Tensaw River
- Gunnison Creek
- Steele Creek
- Tidewater Branch

As a growing community, Satsuma recognizes the importance of the protection of the natural environment, and balances the need for growth and economic development with environmental consideration.

3.0 Contacts List

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

The Honorable Paul Murray
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4.0 Program Evaluation

4.1 Program Objective

The City of Satsuma, in conjunction with other municipalities in the Mobile Baldwin County area, applied for a National Pollutant Discharge Elimination System (NPDES) Permit for storm water discharges. The permit was granted on June 14, 1996 and assigned the permit number ALS000002. The permit was renewed for a second five-year period on September 24, 2001. The intent of the NPDES permit is to reduce and eliminate pollutants in storm water that is discharged from MS4s.

In 2013, the City of Satsuma submitted a request to ADEM for admittance into the MS4 Phase II permit program. The permit change request was granted and the City was assigned the permit number ALR040046. After approval from ADEM, the City submitted a Storm Water Management Program Plan for ADEM approval. The plan was designed to implement a storm water management program employing best management practices.

The City of Satsuma is dedicated to achieving the conditions of this permit, which will ultimately improve water quality by reducing pollutants in receiving waters. The City's goals are to educate the municipal employees and the general public on the storm water management program and focus on a unified approach to the identification and correction of problem areas.

Additionally, the City has established the legal structure to manage and enforce the requirements of the program.

4.2 Major Findings

One (1) major outfall and six (6) field screening locations were identified for sampling. These sites are listed in Section 7.1 and detailed on maps included in *Appendix A*. Inspection results for wet weather sampling are included in this report.

4.3 Major Accomplishments

During the 2014 year, the following were major accomplishments:

- With the assistance from Mobile County, the city cleaned out a major drainage ditch (Stephens Acres Drainage) which drains the southeast section of the city. This removed years of silt and sediment buildup.
- The City also rebuilt a street culvert on Old Highway 43 to allow for better flow of water.

- The area around the H.P. Cain Bridge on Old Highway 43 at Steele Creek was cleared to allow for better drainage.
- Public Works completed a two week major clean up on the Orchard Street drainage ditch which runs from Baker Road along the Burlington Northern RR just north of the water plant. This ditch drains most of the west side of the city.

4.4 Overall Program Strengths and Weakness

The City continues to enforce the storm water ordinance on any construction projects by ensuring that best management practices are used effectively to minimize and control discharges. Drainage priority lists are established by the City Council and updated as needed.

As with prior years, the prediction of the long-range financial requirements needed to support the storm water program is difficult. City officials will address the financial needs and allocations on a year-to-year basis. The City will also work toward providing more storm water education opportunities to citizens and employees in the coming years.

4.5 Future Direction of the Program

- The City will continue to monitor designated outfall points.
- The City will improve community activity through education.
- The City will continue public involvement activities to improve water quality.
- The City will continue to implement and enforce the ordinances and other programs regarding storm water issues.

5.0 City of Satsuma Compliance Summary Table

Control Measure	BMP	Description	Activity Schedule	2014-2015 Evaluation
Public Education	City Website	Provide residents information	Continuous throughout year	Information added as needed. Updated regularly
Public Education	Water Bill Newsletter	Provide residents information	Continuous throughout year	Information provided as needed
Public Involvement	Annual Clean-Up Day	Household Waste Disposal	1/year	Not financially feasible. Investigating partnering opportunities
Public Involvement	Recycling Program	Provides Recycling Information	Continuous throughout year	Unable to coordinate efforts with Mobile County. Working towards event in 2015
Public Involvement	Household Hazardous Waste	Recycling	Continuous throughout year	Collected oil throughout the year through Public Works
Public Involvement	Volunteer Training	Training for hazardous materials	As needed	Fire Firefighters completed two hazardous material training classes and one table top drill
IDDE	Inspections	Major Channel Inspections	12 channels 1/month	Channels were inspected, additionally after heavy rains
IDDE	Inspections	Storm Inlet Inspections	1000 inlets 1/month	Outlets were inspected, additional after heavy rains
IDDE	Maintenance	Major Channel Maintenance	12 channels as needed	Inspected more or often as needed
IDDE	Monitoring	Wet Weather Screening	6 sites 1/year	Completed, see Appendix A
IDDE	Monitoring	Dry Weather Screening	6 sites 1/year	Completed, See appendix E
IDDE	Industrial	Industrial Inspections	4 sites 1/year	Inspected on a continuous basis
IDDE	Ordinances	Revisions	1/year	Ordinance reviewed and updated
Construction Runoff Control	Ordinances, Codes, and Regulations	Enforcement	As needed	No citations issued
Construction Runoff Control	Ordinances, Codes, and Regulations	Revisions	1/year	Ordinance reviewed-no changes during reporting period
Construction Runoff Control	Inspections	Construction Site Inspections	As needed	Inspected periodically during construction period-no violations
Post-Construction	Ordinances, Codes, and Regulations	Enforcement	As needed	No citations issued
Post-Construction	Ordinances, Codes, and Regulations	Revisions	1/year	Ordinance reviewed-no changes during reporting period
Post-Construction	Inspections	Site Inspections	As needed for closeout	Inspected for close out no violations

Post-Construction	Inspections	Detention Ponds	As needed	Maintained and inspected as needed
Pollution Prevention	PGO	Plan for Hazardous Materials	As needed	PGO reviewed- no changes
Pollution Prevention	Roadway Maintenance	Maintenance of Drainage Ways	As needed	Maintained and inspected as needed
Pollution Prevention	Mitigation Meetings	Drainage Issues	1/month	Meetings schedule changed to as needed- City Inspector attends all meetings.

6.0 Narrative Report

6.1 Public Education and Outreach

The City is dedicated to achieving the conditions of this permit by working to ultimately improve water quality by reducing pollutants in receiving waters within the City's MS4 area. The City's goals are to educate the general public, contractors, developers, business owners, and municipal employees on the storm water management program and focus on a unified approach to the identification and correction of problem areas.

The City has established the following public education outreach program measurable goals and BMPs:

Newsletters

The City notifies all citizens through a newsletter of the garbage collection times during the holiday period.

City Website

The City utilizes the City website to inform the public (homeowners, business owners, employees, professionals, developers, contractors, and elected officials) of storm water pollution issues and events. The City also promotes waste disposal events, recycling programs via the City website, along with City Council meeting minutes and updated ordinances and policies. *Appendix B* details the information provided on the website.

New Citizen Handouts

The City, through Satsuma Water and Sewer, provides all new citizens with a customer packet which informs them about the area utilities and answers new citizens' questions on waste removal in the City. See *Appendix B* for a copy.

Steel Creek Lodge and Park

The Steele Creek Lodge is fitted with signs about the watershed areas to educate the public on the unique waterbodies surrounding the City of Satsuma. The City is proud to have this park as an excellent tool for educational school field trips and also just to educate the general public. In excess of 5,000 boats launch at this site over a 12 month period. The Park is an excellent means of getting to the Delta. See *Appendix C* for pictures of the park.

6.2 Public Involvement and Participation

The City's goals to involve the public with the development and implementation of its storm water program by providing activities to encourage and foster community participation in water quality improvement by reducing and eliminating pollution to receiving waters in the City's MS4.

The overall management and reporting personnel of the City's storm water public involvement and participation program is detailed in Section 3.0. Overall success of the City's public involvement and participation program will be assessed by the results from water quality monitoring as well as storm water pollution awareness in the community.

The City has established the following public involvement and participation program measureable goals and BMPs:

Recycling Day

The City was unable to complete a recycling day for 2014 due to some scheduling conflicts with Mobile County. Mobile County has informed the City that a new recycling day will be scheduled for the spring of 2015. Upon confirmation from Mobile County, the City will be allowed to partner in this program, information will be posted on the website, in a newsletter and on the water bill for citizens to participate.

Trash Ramp and Leaf Collection Program

The City provided citizens with access to the City's trash ramp that accepts any items other than household garbage and hazardous materials. Information has been placed on the city's website detailing the locations and information regarding the use of the trash ramp and also information

on alternative disposal information. A new leaf vacuum was purchased in the reporting period to continue providing a service to clean up citizens' yard clippings.

Water Festival

The City is working toward teaching its young citizens the value of clean water and a clean environment. Satsuma planned on partnering with Mobile County in a Water Festival to help move forward with the program. But after contacting the county, the program was eliminated and another entity has taken over the responsibility. Contact will be made with this entity to see if partnering will be an option. Also, the City is looking into possible funding options for providing a Water Festival sponsored by the city.

Oil and Household Hazardous Waste

The City accepts only non-hazardous items for disposal at an approved facility. Residents are provided information on the disposal of common household wastes and given drop-off locations for those materials not accepted by the City. Also, information on waste disposal regularly appears on water bills, a monthly newsletter, and is posted on the City's website. The City will allow residents to bring motor oil to a designated location for recycling.

After investigating the oil and grease recycling programs, it has been determined that the City nor the Satsuma Water and Sewer Department can economically afford to implement such programs. If grants become available, the city and/or Satsuma Water and Sewer may reevaluate the feasibility of oil and grease recycling program.

City Council Meetings

City Council Meetings are advertised on the website to allow the public to come in for public input or comment on decisions being made. The City also posts council minutes after approval on the City website to provide the public with multiple ways to know what is happening in Satsuma.

6.3 Illicit Discharge Detection and Elimination (IDDE)

The City's goal is to eliminate all illicit discharges in the City by using the City's established illicit discharge detection and elimination measureable goals and BMP's .

Storm Water Ordinance

The City's Storm Water Ordinance (*Appendix D*) continues to be used to insure compliance of the permit by regulating non-storm water discharges into the storm drains. The City responds to illicit discharges, conducts inspections, investigates, and enforces violations based on the City's Storm Water Ordinance. Suspected illicit discharges are investigated and handled immediately. There were no citations issued this year for illicit discharges. The City will continue to provide a yearly review of the ordinance to ensure that it meets current permit requirements.

Inspections

City personnel inspected and maintained major channels and storm inlets within the City's MS4 area throughout the year (*Appendix E*). The Satsuma Water and Sewer Board monitors for any Sanitary Sewer Overflow (SSO's) and during the reporting period, there were no SSO's. The City conducts inspections of industrial facilities on a continuous basis. Currently there are no facilities subject to regulation under the Resource Conservation and Recovery Act (RCRA) within the City's jurisdiction.

Volunteer Training

The City's Fire Department continues to conduct in-house hazardous materials training for all volunteers on an as needed basis. Fire Firefighters completed two hazardous material training classes and one table top drill during the 2014-2015 permit year.

6.4 Construction Storm Water Control

The City's goal is to continue to identify and correct storm water pollution from construction projects with the City's construction site storm water runoff control program. The monitoring program, using the following established measurable goals and BMPs, helped to manage and enforce construction site storm water runoff.

Ordinances, Regulations, and Codes

Satsuma's Planning Board and Board of Adjustments continue to advise the City Council on current and future development within the City and Planning Jurisdiction of the City. The Building Inspector is responsible for protecting the health, safety, and welfare of the City and its residents through enforcement of the City's Subdivision Regulations, Building Codes, and Ordinances (*Appendix F*).

Storm Water Ordinance Number 509 addresses runoff from construction sites, requirements for storm water management, BMP plans for construction projects, and the City's review and approval process. The City required that construction projects have an approved erosion and sediment control plan to obtain approval for a City building permit.

Flood Ordinance 413 allows the City to implement regulations should any new developments negatively impact drainage capacity or downstream property. Potential drainage issues are addressed before the approval of any development plans. This document is located in *Appendix G* of this report.

Pesticides, Herbicides, and Fertilizers

When needed, the City contracts Jerden Services, Inc. to spray pesticides and herbicides within the City's MS4 for maintenance of ditches; otherwise the city does use pesticides, herbicides and fertilizers. During the 2014-2015 permit year, the City did not require these services.

Construction Inspections

The Building Inspector is responsible for construction inspections to ensure all codes, regulations, and ordinances are upheld. These codes, regulations, and ordinances include: building, electrical, plumbing, mechanical, gas, fire standard, and storm water management practices. The Building Inspector also prepares and approves land disturbance permits for construction. Once a permit is obtained, the contractor must request inspections during specified stages of construction. All contractors are required to uphold all ADEM standard BMPs as set forth by their construction storm water permits for construction projects.

Inspections are done during various times during the construction process. The inspection process ensures that all construction projects are in compliance with ADEM permit regulations and City codes, regulations, and ordinances.

6.5 Post-Construction Storm Water Management in New Development and Redevelopment

The City's goal is to continue to improve post-construction storm water runoff in order to improve water quality within the City's waterways. Strict requirements are addressed in the City's Storm Water Ordinance located in *Appendix D* of this report. The City Inspector also uses

the 2009 International Code which requires construction sites to follow the guidelines established in the storm water management plan.

During the reporting period, all construction projects were required to complete site stabilization before the permit was closed out. No citations for improper storm water management were issued during this reporting period.

Detention Pond Inspections

City personnel inspected the City's detention ponds for maintenance according to the requirement of the City's Storm Water Ordinance. The Public Works Department maintains a photographic record of drainage problems and daily logs are kept detailing activities accomplished. Reports of these activities are submitted to the Mayor and City Council as needed.

6.6. Pollution Prevention/Good Housekeeping for Municipal Operations

Throughout the reporting period, the City continued with its goal to improve the pollution prevention and good housekeeping for municipal operations program by using the following established pollution prevention and good housekeeping for municipal operations program measurable goals and BMPs:

Procedural General Order (PGO)

The City Police and Fire Department d continue to implement a PGO (*Appendix H*) for the reporting and handling of hazardous and/or toxic materials, spills, and incidents. The City of Saraland and/or the City of Mobile's Hazardous Materials team are called in for spills or emergencies. During the reporting period, there was one (1) incident in which Saraland Hazardous Material Team was called to handle an accident with a spill. The report is attached as *Appendix I*.

Roadway Maintenance

The Satsuma Public Works Department performs smaller roadway maintenance projects, while larger projects are designed by local engineering firms or accomplished through the Mobile County "Pay As You Go" program. During this past monitoring period, both the City and the County performed three (3) projects and one (1) future project are listed below:

- Steele Creek Lodge – The City maintained and controlled the runoff by adding additional riprap.
- Old Highway 43 from Juniper Avenue to Magnolia Avenue – The City continues to monitor the area under the bridge by weed eating growth. Also the city repaired a washout under the pedestrian bridge bulkhead by replacing riprap to prevent further erosion.
- Old Highway 43 from Juniper Avenue north to the Mobile County line.- As part of the Mobile County Pay-As You-Go program, the dirt portion of Old Highway 43 between Pennsylvania and Juniper, was paved, thus eliminating the erosion and sedimentation problems in the area.
- Baker Road Bridge – The City has received a grant to replace the bridge. Construction should begin in the summer of 2015.

The City has contracted with IED/Unified Recovery Group, LLC (*Appendix J*) for debris removal after a named storm event. Another program that the City employs is a citizen leaf collection by a leaf vacuum. By providing the City with these debris removal services, drainage to the MS4 system is greatly improved in the City.

Employee Community Involvement

A City representative attended annual or as needed hazard mitigation meetings. The City plans to continue to partner with Mobile County for any future endeavors dealing with drainage issues located within the City. The City has developed a detailed, comprehensive plan for future growth within the City through a contract with the South Alabama Regional Planning Commission. Paper recycling in municipal buildings is provided through the Shred-It monthly recycling program. After investigating the oil and grease recycling programs, it has been determined that the City nor Satsuma Water and Sewer Department can economically afford to implement such programs. If grants become available, the city and/or Satsuma Water and Sewer may reevaluate the feasibility of oil and grease recycling program.

Employee Training

The City uses regular safety meetings to educate public works employees on storm water matters. The Public Service Supervisor educates employees to be aware of any chemicals such as excessive oil that do not belong in the drainage ditches and to report those violations. Also if there is excessive debris that is being placed in the ditches, the employees are told to report these incidents to the supervisor so that the issue can be addressed with the citizen.

7.0 Monitoring Results

Field screening locations and monitoring stations were selected based upon proximity to major stream systems, drainage basins, and urban development. Field screening stations are examined during dry conditions to verify that flow exists only during rainfall events. Monitoring stations are located along water bodies that would receive runoff from overland flow and storm water outfalls.

7.1 Monitoring Locations

The following is a list of field screening locations and major outfall sites. Individual sampling sites are indicated on maps included in *Appendix A*.

- One (1) major outfall at Orange Avenue at Tidewater Branch
- 6 field screening locations:
 1. Intersection of Williams Street and Third Street
 2. Highway 43 and I-65, Detention pond at Truck Stop
 3. Intersection of Sixth Street and Bayou Avenue
 4. Orchard Street, next to Lift Station
 5. Tidewater Branch at the intersection of Cedar Street and Carl Street
 6. Holcomb Ditch at 3rd Street

7.2 Wet Weather Data

The City scheduled the field screening using EnviroChem and the report is included as *Appendix A*.

7.3 Dry Weather Data

Dry weather field screenings are performed continuously by the Public Works Department. Documentation of the Public Works Department's maintenance activities are located in the timesheets provided in *Appendix E* of this report. All sites appeared to be in operable condition. There were no illicit discharges at the time of inspections.

8.0 Summary

This report includes a history and overview of the City of Satsuma's MS4 Program, monitoring results and locations and a narrative portion which provides a review of the programs elements and activities. The City of Satsuma is dedicated to reducing pollutant loading into the storm

water and improving storm water discharge quality. The City will continue to provide more educational materials for citizens and put out reminders so that everyone remains aware. Budget restraints sometime hinder these efforts, so as discussed the City plans to work toward a cooperative effort and/or partnership with other entities to provide some services to our citizens for recycling and education.