



**City of Fairhope, Alabama  
Storm Water Management Program Plan  
Phase II General Permit # ALR040040**

**2021  
(April 1, 2021– March 31, 2022)**



Report Prepared By:  
City of Fairhope  
Planning and Zoning Department  
555 South Section Street  
Fairhope, AL 36532

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**1.0 CONTACT LIST AND INTRODUCTION**

**1.1 Certification**

I certify under penalty of law that this document and all attachments are 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 fines and imprisonment for knowing violations.

\_\_\_\_\_  
Name and Title (type or print)

\_\_\_\_\_  
Sherry Sullivan, Mayor (Signature)

\_\_\_\_\_  
Date

**1.2 List of Contacts**

Address:           City of Fairhope  
                          Post Office Drawer 429  
                          Fairhope, AL 36533  
                          Phone: (251) 928-2136

Contact Person:   Mrs. Kim Burmeister  
                          Code Enforcement Officer  
                          555 South Section Street  
                          Fairhope, AL 36532  
                          (251) 928-8003



**Figure 1 Fairhope Municipal Pier**

### 1.3 General Introduction

The City of Fairhope is situated on the eastern shore of Mobile Bay in Baldwin County, in southwest Alabama. The 2018 US Census determined the City's population estimate to be 22,085. The annexed limits, which are also the MS4 area limits, comprises about 15 square miles. It is part of the Eastern Shore area with Daphne, Montrose and Spanish Fort to the North.

There are three main receiving streams within these area limits (Fly Creek, Rock Creek and Cowpen Creek). As of November 2020, there are (3) 303(d) impaired streams listed by ADEM.

a. Cowpen Creek is identified as a 303 (d) stream due to the presence of atmospheric mercury deposition. It is not anticipated that the land uses in the City of Fairhope MS4 watersheds are contributors to the atmospheric deposition of mercury.

b. Fly Creek is identified as a 303 (d) stream due to presence of pathogens likely from cattle grazing.

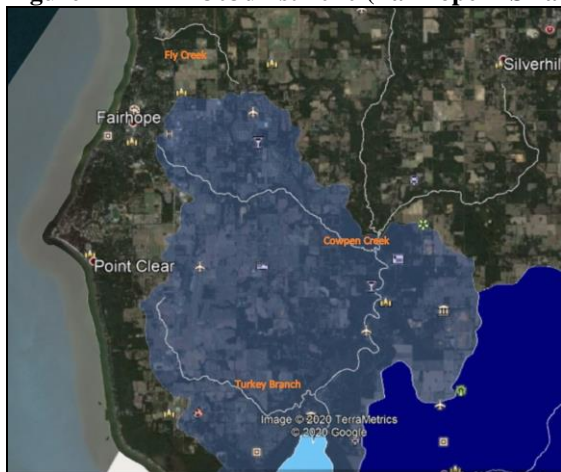
c. Turkey Branch is identified as a 303 (d) stream due to the presence of pathogens, likely from cattle grazing and atmospheric deposition of mercury.

It is not anticipated that the City of Fairhope MS4 area is a contributor to any of these impairments. There are no known cattle grazing activities in the Fly Creek watershed or Turkey Branch watershed in the city limits. There are no known activities which might contribute to atmospheric mercury deposition.

<http://adem.alabama.gov/programs/water/wquality/2020AL303dList.pdf>

AL03160205-0204-401	Turkey Branch	R	Mobile	Baldwin	Fish & Wildlife	Metals (Mercury)	Atmospheric deposition	1.53 miles	Fish River / Baldwin County Road 181	2020	L
AL03160205-0204-402	Turkey Branch	R	Mobile	Baldwin	Swimming Fish & Wildlife	Pathogens (E. coli)	Pasture grazing	5.16 miles	Baldwin County Road 181 / Its source	2018	L
AL03160205-0204-402	Turkey Branch	R	Mobile	Baldwin	Swimming Fish & Wildlife	Metals (Mercury)	Atmospheric deposition	5.16 miles	Baldwin County Road 181 / Its source	2020	L
AL03160205-0204-700	Cowpen Creek	R	Mobile	Baldwin	Swimming Fish & Wildlife	Metals (Mercury)	Atmospheric deposition	7.12 miles	Fish River / Its source	2008	L
AL03160205-0205-702	Fly Creek	R	Mobile	Baldwin	Swimming Fish & Wildlife	Pathogens (E. coli)	Pasture grazing	3.32 miles	10 feet above MSL / Its source	2018	L

**Figure 2 ADEM 303d list 2020 (Fairhope MS4 are**



**Figure 3 General locations of Fairhope's 303 (d) impaired watersheds**

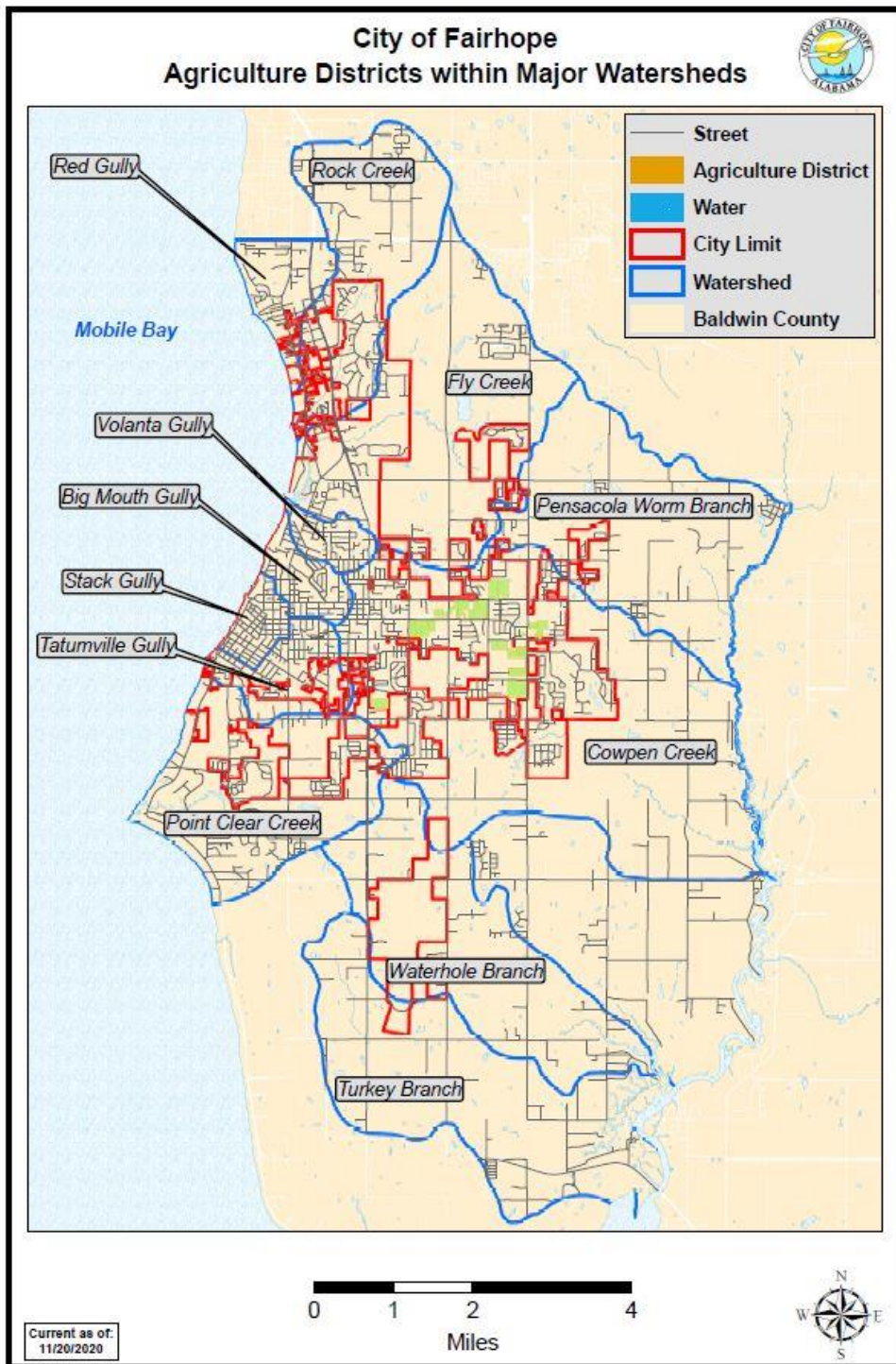
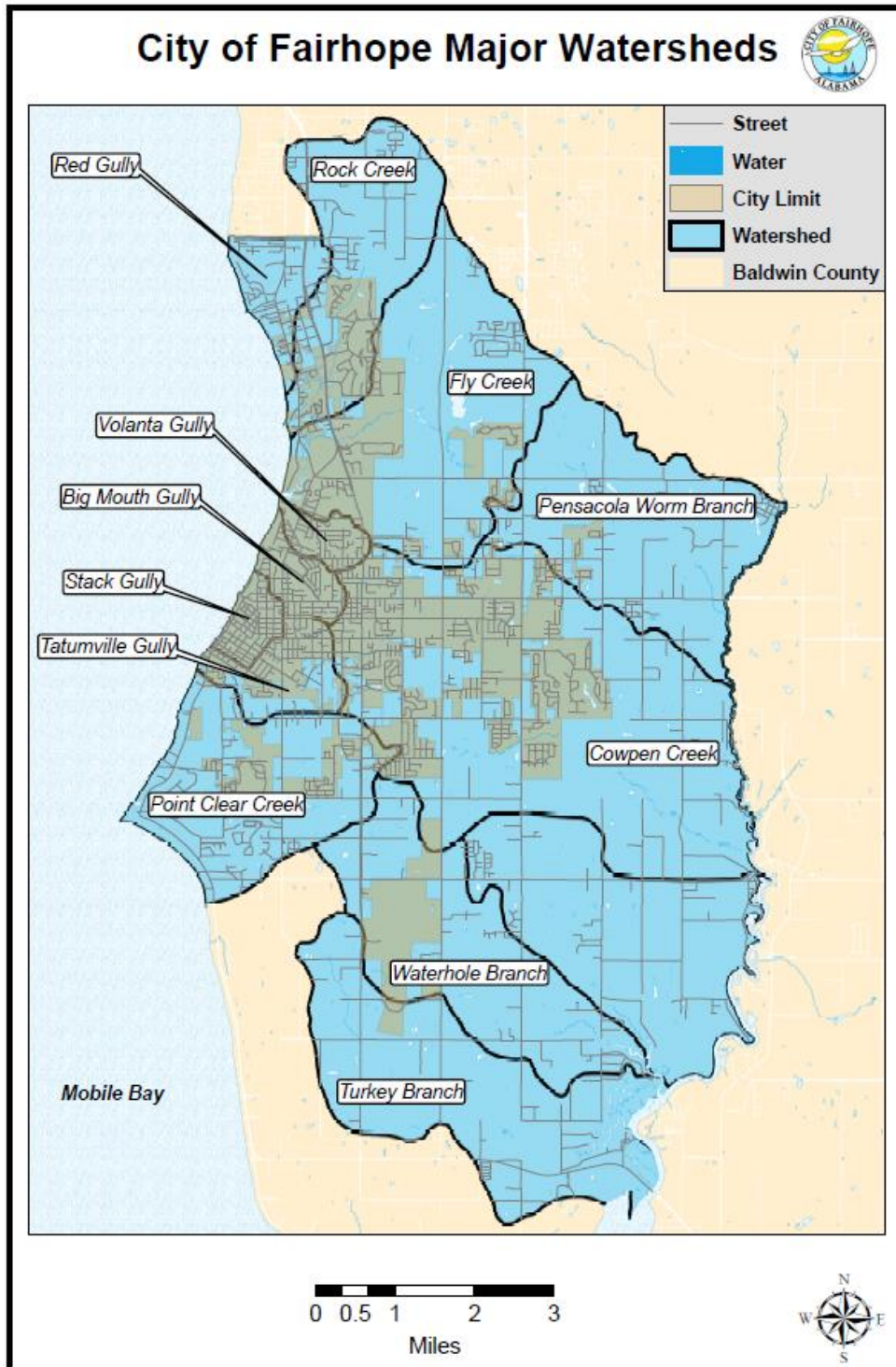


Figure 4 RA Districts in Fairhope reflect no agricultural districts in Fly Creek or Turkey Branch



**Figure 5 Fairhope Watershed Map, November 2020**

The aquatic resources of the Fairhope Region, including Mobile Bay, Cowpen Creek, Fly Creek and Rock Creek are essential to the area’s economy and the attractiveness of the community to both residents and visitors. Preserving these resources and keeping them healthy is of primary interest to the community and to area leaders.

## 2.0 STORMWATER MANAGEMENT PROGRAM PLAN (SWMPP) REQUIREMENTS

### 2.1 Listed Requirements

As part of the MS4 Phase II requirements, the City of Fairhope must develop, implement and enforce a SWMPP which shall include controls necessary to reduce the discharge of pollutants from its MS4 consistent with Section 402(p)(3)(B) of the Clean Water Act and 40 CFR Parts 122.30-122.37. These requirements shall be met by the development and implementation of a SWMPP which addresses the best management practices (BMPs), control techniques and systems, design and engineering methods, public participation and education, monitoring and other appropriate provisions designed to reduce the discharge of pollutants from the MS4 to the maximum extent practicable.

The SWMPP shall include:

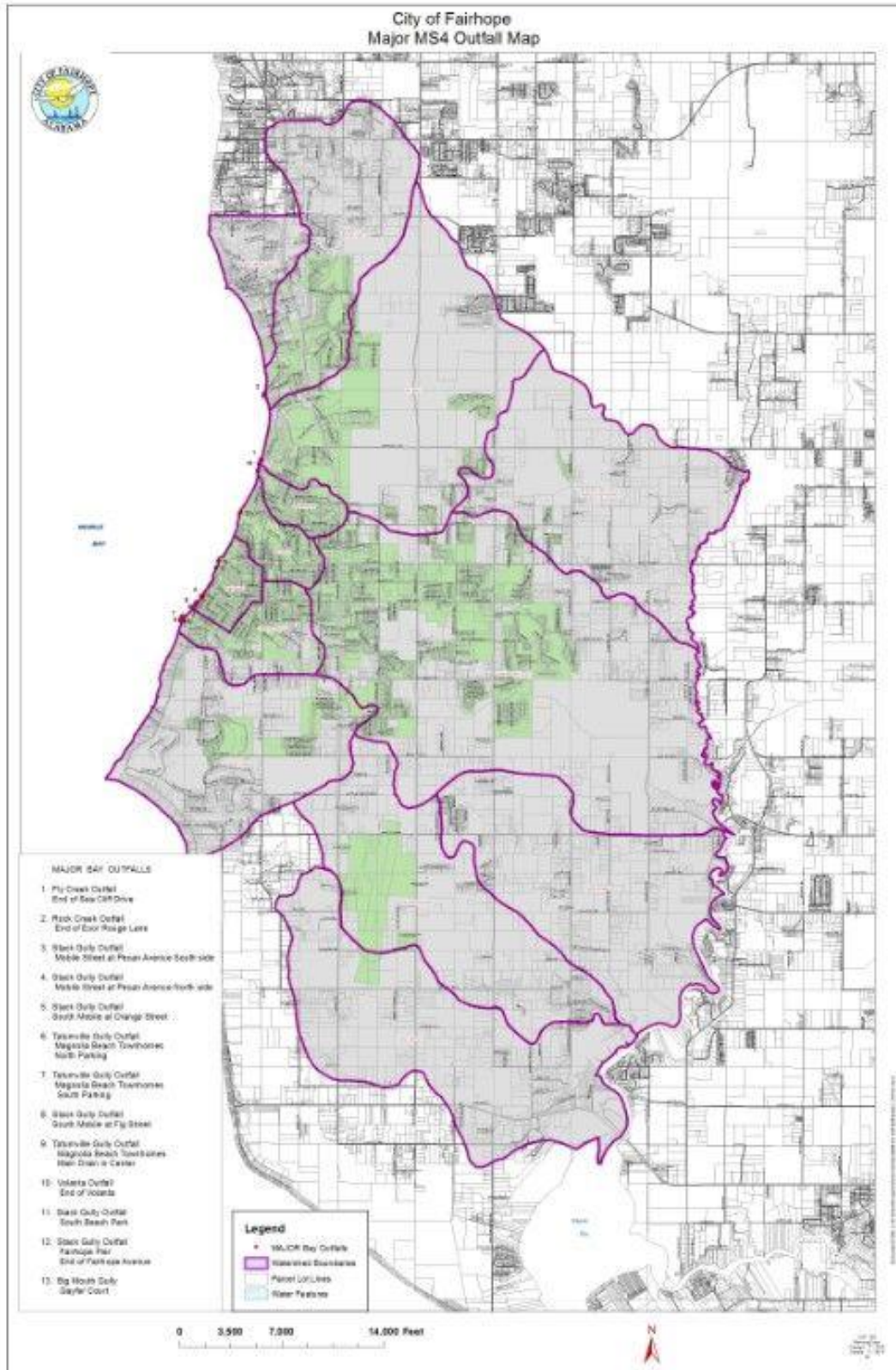
1. Map of the City of Fairhope MS4 program area and outfalls
2. BMPs that will be implemented for each minimum control measure, as listed below, and shall consider LID/ Green Infrastructure where feasible
3. Measurable Goals for each minimum control measure
4. Proposed schedule to implement minimum control measures
5. List of person / persons responsible for coordination of each BMP / measurable goals

The SWMPP shall address these Minimum Control Measures:

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



**Figure 6 Rock Creek streambank stabilization project, Rock Creek Parkway, November 2019**



**Figure 7 City of Fairhope Major Outfalls (Source: Planning and Zoning GIS Jan. 2020)**



The Minimum Control Measures with Measurable Goals for 2021:

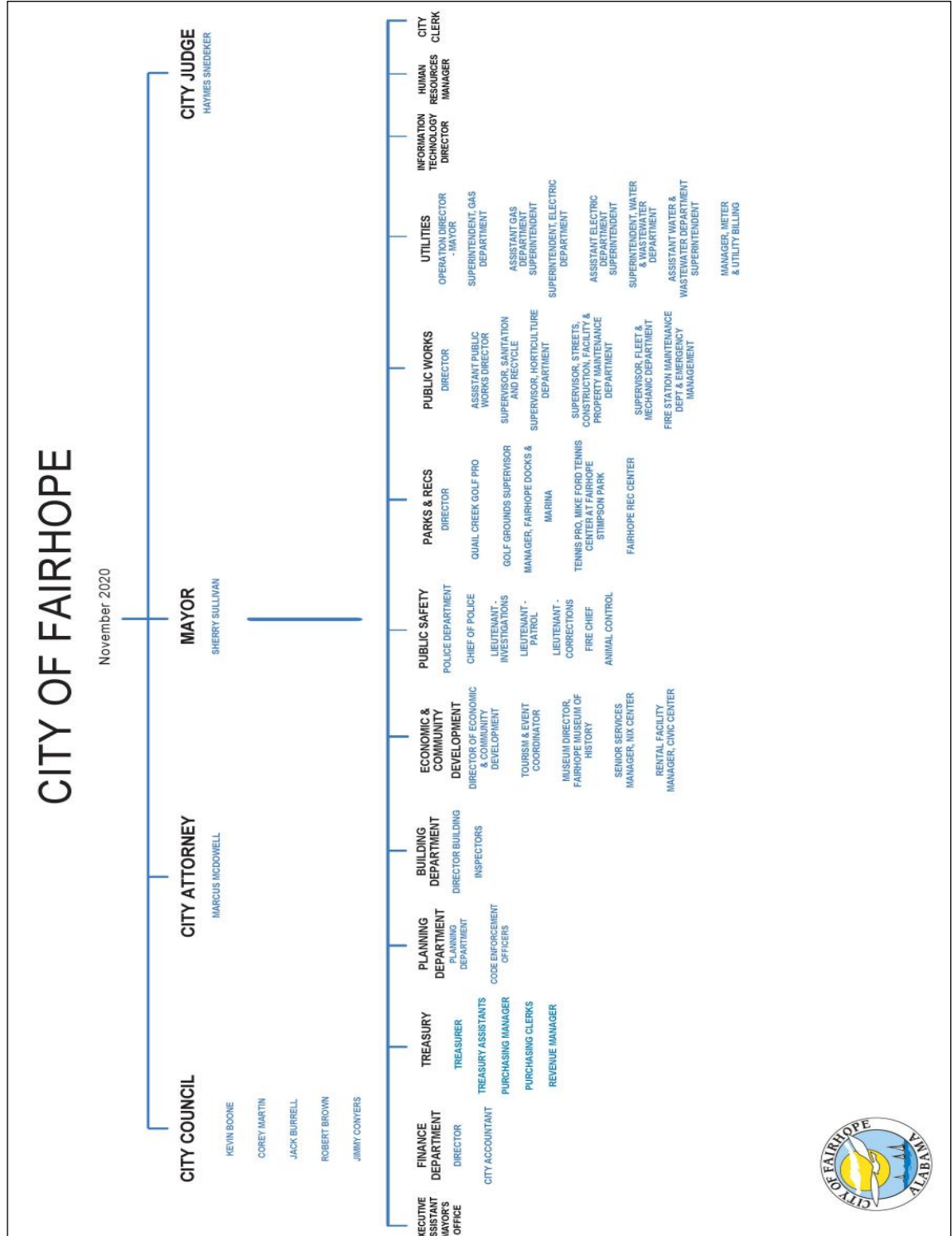
1. Public Education and Public Involvement on Storm Water Impacts (5)
  - a. Stormwater Education / Seminar for Planning and Zoning Dept.
  - b. Stormwater Article on Social Media
  - c. BMP Workshop for City Employees
  - d. Public Educational / Input Meeting for Stormwater Issues
  - e. SWMPP Public Review
2. Illicit Discharge Detection and Elimination (IDDE) (4)
  - a. Stormwater Outfall Inventory Update
  - b. Video of Sewer Lines
  - c. Public Works Illicit Discharge Detection Meeting
  - d. Dry Weather Screening of Outfalls / Outfall Assessment
3. Construction Site Storm Water Runoff Control (3)
  - a. QCI Recertification of Code Enforcement Officers (2) (Planning & Zoning)
  - b. QCI Recertification for Building Inspectors (5) (Building Department)
  - c. QCI Certification – initial certification for (1) Right of Way Inspector (Building Dept.)
4. Post Construction Storm Water Management in New Development and Redevelopment (2)
  - a. Community Hands-on Event for Stormwater Education (Earth Day Watershed Booth)
  - b. Creek/Shoreline Assessment of MS4 area via Kayak
5. Pollution Prevention / Good Housekeeping for Municipal Operations (5)
  - a. Good Housekeeping / Pollution Prevention Memo to all departments
  - b. Dry Weather Screening of Public Works Facility
  - c. Recertification of Commercial Pesticide Applicator: Public Works
  - d. Recertification of Commercial Pesticide Applicator: Golf Course



**Figure 8 Fly Creek at Mobile Bay: Fairhope Yacht Club on left; Fly Creek Marina on right.**


## 2.2 SWMPP Management

The City of Fairhope Planning and Zoning Department will serve as the lead coordinator of the MS4 Storm Water Management Plan. Several departments within the City will have a role in Fairhope's MS4 SWMPP: Planning and Zoning; Building; Public Works; Utilities (Gas/Water & Sewer/Electric); Recreation and Parks; Fairhope Docks, Quail Creek Golf Course Management and Community Development. A general contact number for everyone is: 251-928-8003.



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City of Fairhope 125th Anniversary

- FAQ

What is the City doing to manage unprecedented growth?

What is the City doing to upgrade the sewer system?

**How is Fairhope addressing water quality and Mobile Bay?**

What is the City doing to improve traffic and pedestrian safety?

What is the City doing to improve downtown parking?

What's Happening at the Municipal Pier?

How and why is Knoll Park being restored?

What is Fairhope Docks?

I have rental property; what is my responsibility to the city?





How does the City handle recycling?

How Fairhope Building Department cautions against unlicensed builders?

What resources are available

Community » FAQ »

## HOW IS FAIRHOPE ADDRESSING WATER QUALITY AND MOBILE BAY?

Font Size:  + -  Share & Bookmark  Feedback  Print

### What is the City's commitment to the health of Mobile Bay?

The City of Fairhope knows that our greatest asset is Mobile Bay and the many streams and creeks in our watershed that feed it. We take water quality very seriously and are committed to a healthy Bay in which to safely recreate and fish and in which our sea life can flourish.

We assure our citizens that poor water quality readings are not acceptable and we must take additional actions that help identify the sources of such readings.

### What are sources of poor water quality?

Living in a beautiful and growing coastal environment with some of the highest rainfall levels in the country comes with its challenges, and we are not alone in our constant battle to meet the challenge of assuring water quality. Sanitary System Overflows (SSOs) can be one source of poor water quality, as are stormwater discharges from agricultural operations, construction of homes and businesses, failed septic systems and private sewer operations, boat waste, industrial operations, lawn fertilizers, chemicals and even pet waste. Mobile Bay is the repository of runoff from four states, so pinpointing the source of water contamination can be a difficult task.

### What has the City been doing?

Water tests in Fairhope are conducted by regulatory agencies, including the Alabama Department of Environmental Management (ADEM) and the Alabama Department of Public Health (ADPH). In addition, the City of Fairhope has been voluntarily engaged with Mobile Baykeeper to perform water quality tests at sites on Fly Creek. Mobile Baykeeper also regularly tests sites in known swimming areas along Mobile Bay, and has reported results of bacterial contamination that exceed the EPA recommended water quality standards for swimming. This is not acceptable for us; neither should it be for the citizens of Fairhope. Consequently, Public Utilities Director Richard Peterson is focused on additional activities within the City's purview, to advance a plan of action.

Over the past 20 months, the City has been hard at work to identify and address water quality concerns.

**Figure 9 "How is Fairhope addressing water quality and Mobile Bay?"**

<https://www.fairhopeal.gov/community/faq/water-quality>

### 2.3 SWMPP – Watersheds of Fairhope

The City of Fairhope uses a watershed-based approach to storm water management. The MS4 area limits (also the annexed City limits) encompasses 12 watersheds, and approximately 15 square miles.

City of Fairhope MS4 area limit watersheds acreage:

a. Red Gulley	63
b. Rock Creek	748
c. Fly Creek	1511
d. Volanta	390
e. Big Mouth Gulley	522
f. Stack Gulley	394
g. Tatumville Gulley	618
h. Point Clear Creek	704
i. Turkey Branch*	91
j. Waterhole Branch*	814
k. Cowpen Creek *	3597
l. Pensacola Branch/Worm Branch*	152

TOTAL APPROXIMATE ACREAGE: 9,604 acres (15 SQUARE MILES)

Source: Planning and Zoning Department GIS / Planning Tech (CA) 11/16/2020

\*These watersheds drain to Fish River and ultimately, Weeks Bay, an Outstanding National Resource Water (ONRW).

While all of these watersheds ultimately drain to Mobile Bay, the watersheds located on the East side of U. S. Highway 98 generally drain to Fish River before final discharge into Mobile Bay. The watersheds that drain into Fish River are: Turkey Branch, Waterhole Branch, Cowpen Creek and Pensacola/Worm Branch. The watersheds draining east to Fish River are considered Priority Construction Site areas, because of the ultimate outfall into Weeks Bay, an Outstanding National Resource Water.



Figure 10 Fly Creek at Mobile Bay (dredging project) 2019

### 3.0 MINIMUM CONTROL MEASURE#1: PUBLIC EDUCATION AND PUBLIC INVOLVEMENT ON STORM WATER IMPACTS

- **Requirements:** The City of Fairhope must develop and implement a public education and outreach program to inform the community about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff to the maximum extent practicable. The City of Fairhope shall also comply, at a minimum, with applicable State and local public notice requirements when implementing a public involvement/participation program. SWMPP must include public input method for SWMPP review and must list target pollutants and target audiences; SWMPP must address the reduction of litter, floatables and debris from the MS4 area; SWMPP must show methodology for informing and involving individuals, land use planners, engineers, businesses and property managers in storm water pollution prevention. More information on this requirement can be found in the general permit.
- **Responsible Persons:** Planning and Zoning Manager; Building Department; Public Works Director; Special Events Coordinator; Community Development Manager
- **Rationale Statement:** The City of Fairhope supports the Fairhope Environmental Advisory Board (FEAB), which currently has eight (8) members as of 11/17/2020. This Advisory Board provides a public forum for local environmental discussions and educational outreach, with storm water being a major topic of interest. The City of Fairhope also works collectively with neighboring municipalities (City of Daphne and City of Spanish Fort), Baldwin County, AL-DOT and non-profit agencies to create and provide educational materials to the public on storm water issues. Additionally, hands-on events as Earth Day (in Fairhope) show our communities how to recognize stormwater as a resource and not (always) a liability The City of Fairhope also shares stormwater alliances / partnerships with:
  - a. The Coastal Alabama Storm Water Team (CAST) which is currently meeting virtually on-line. Planning and Zoning Department represents for this meeting.
  - b. Weeks Bay Watershed Implementation Team (WBWIT) which meets virtually online quarterly. Planning and Zoning Department represents for this meeting.
  - c. Create a Clean Water Future partners
  - d. Eastern Shore MS4 partners with Daphne, Spanish Fort, Baldwin County and AL-DOT

The City of Fairhope sponsors several community environmental education events each year:

1. Coastal Clean Up (Public Works)
2. Mobile Area Earth Day (Public Works, Planning and Zoning)
3. Arbor Day (Public Works)
4. America Recycles Day (Public Works)

The City of Fairhope supports our local schools by providing staff as volunteers for:

1. The Baldwin County Water Festival (Planning and Zoning Department)
2. Master Environmental Educator Program (Planning and Zoning Dept.)

The City of Fairhope supports public access to volunteer water testing results by posting a link to Alabama Water Watch on the City website. In 2020, two city staff were trained for bacteriological testing. Alabama Water Watch is a volunteer water testing program,

overseen by Weeks Bay National Estuary Research Reserve. The Alabama Water Watch program currently provides volunteer water testing at three locations within Fairhope monthly.

In support of the AWW program and local water testing, the Planning and Zoning Department has spearheaded upcoming water monitoring by certifying staff (two city employees) to conduct bacterial water testing beginning in 2021. Supplies and monitoring applications have been secured in 2020. Target areas initially will be three sampling sites on Fly Creek. Bacterial (pathogen) testing is for E. coli which is an indicator for the presence of pathogens (human sewer or animal waste). ADEM's water quality testing (prompting swim advisories) is posted at areas of swimming activity.

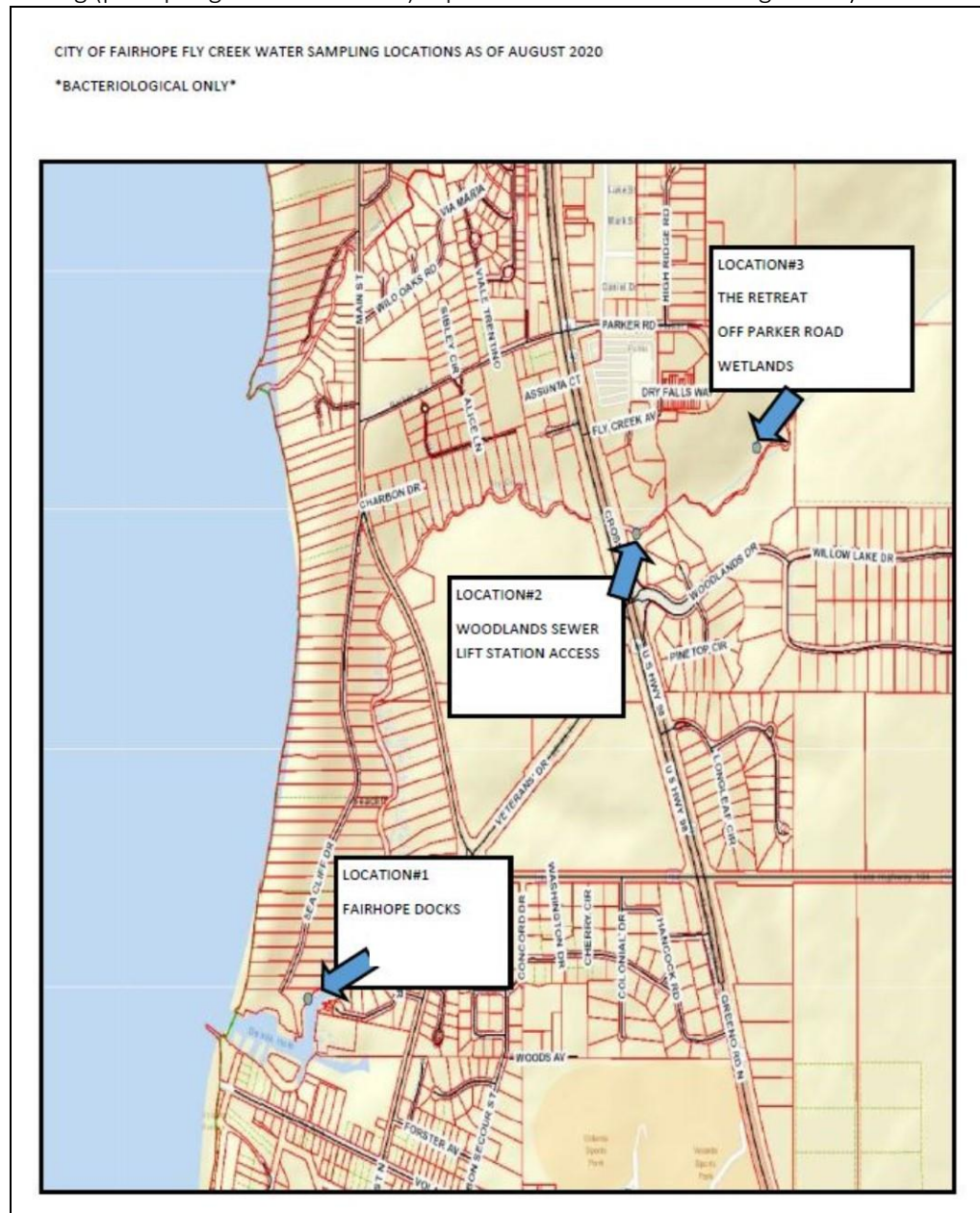


Figure 11 Fairhope Bacterial Water Sampling Locations, 2021

The City of Fairhope offers opportunities for public review, involvement and participation in the City of Fairhope Storm Water Management Program (SWMPP). The current SWMPP and the MS4 Annual Report are posted on the City website: [www.fairhopeal.gov/departments/planning-and-zoning/publications-and-forms](http://www.fairhopeal.gov/departments/planning-and-zoning/publications-and-forms). The Planning Commission, a group of appointed volunteers who offer insight and approval on Planning and Zoning Department procedures and policies, meets monthly at City Hall. The meeting is open to the public. The Planning Commission provides annual review board for the SWMPP. The Planning and Zoning Department is responsible for coordination of these efforts

The City of Fairhope adheres to State and local public notice requirements for public meetings.

Citizen Complaints / Comments: The City of Fairhope receives complaints and comments from citizens by having a General Contact number listed on the City of Fairhope website. This includes storm water, illicit discharge and construction site violation complaints. The number (251) 928-8003 is available 24 hours per day and is directed to the Police Department after hours. Additionally, citizens can enter and track complaints (“service requests”) on line:

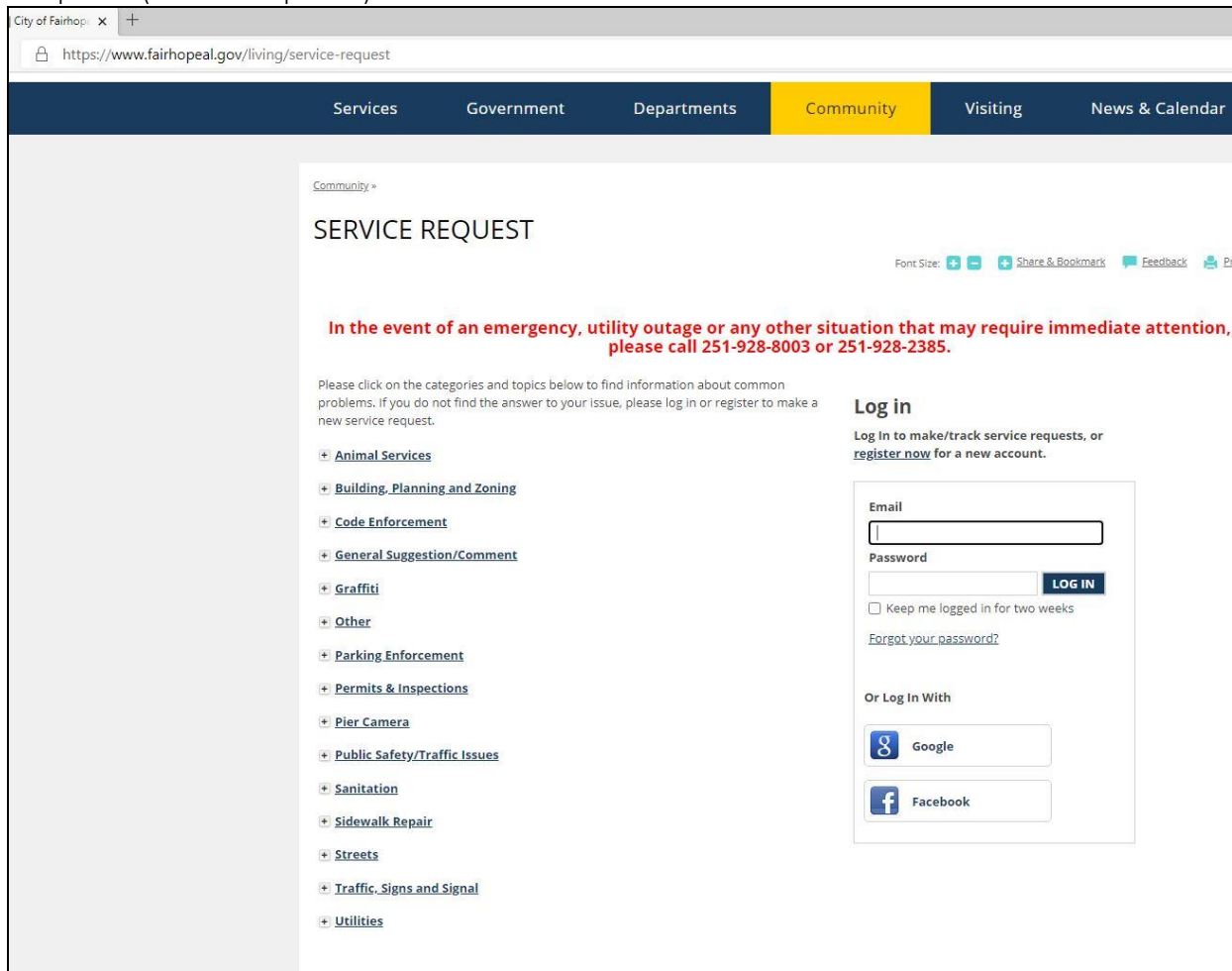


Figure 12 Citizen complaint entry and tracking, www.fairhopeal.gov

**Target audience** for the City educational mechanisms are:

1. Citizens
2. Contractors
3. Landscapers
4. Business owners / managers
5. Property owners
6. Developers
7. Subdivision Property Owner Associations
8. Environmental Groups
9. Educational Groups
10. City employees

**Pollutants of concern:**

1. Sediment
2. Oil residue from parking lots
3. Pesticides, herbicides, fertilizers
4. Pathogens

➤ **BMPs / Mechanisms** used for educational outreach and Public Involvement:

1. Brochures / publications / media
2. Public Educational Meetings / Town Hall Meetings
3. City of Fairhope stormwater alliances
4. City Website ([www.fairhopeal.gov](http://www.fairhopeal.gov))
5. Existing Demonstration projects (Rain Garden, Wetland Pond)
6. Community Events
7. Employee Certifications and Training
8. City Erosion and Sediment Control Workshop
9. Pet waste bags available in City Parks
10. Create a Clean Water Future Campaign
11. Notifications for Public Meetings
12. Subdivision Property Owners Associations Contact List
13. City of Fairhope Planning Commission hearings
14. City of Fairhope Environmental Advisory Board meetings
15. Sanitary Sewer Overflow Signage



## PUBLIC EDUCATION AND INVOLVMENT ON STORM WATER IMPACTS, cont.

**BMP # 1: Brochures / Publications / Media** promoting green space and storm water management, available at City offices and/or on-line:

1. *Greener by the Yard*, pamphlet, Weeks Bay Watershed Project
2. *Fairhope Gullies*, brochure, joint effort of Mobile Bay National Estuary Program, Fairhope Single Tax Corporation, and the City of Fairhope
3. *Parks of Fairhope*, brochure, joint effort of the Fairhope Environmental Advisory Board and the City of Fairhope
4. *Storm Water Management*, brochure created for the City of Fairhope
5. *Field Guide for Erosion and Sediment Control on Construction Sites in Alabama*, booklet, by Alabama Soil and Water Conservation Committee
6. *Facebook*: City of Fairhope frequently uses Facebook to advertise events as well as new policies and procedures
7. *What is a Phase II Small MS4?* brochure compiled by the Eastern Shore MS4 Stormwater Education Outreach Team, available at the City of Fairhope Planning and Zoning Department and Public Works
8. *Understanding Your Stormwater Management Program*; this 5-minute video, produced by and shared with the permission of the Mobile Bay National Estuary Program, is an informational source for elected officials, and the general public. It briefly explains the importance and requirements of our local MS4 program. Available on the City of Fairhope website:
9. *Storm Drain Medallion Project* brochure developed in 2018. Available in hard copy and on-line.

Responsible Person(s) for brochures / publication / media placement: Planning and Zoning Department (Code Enforcement Officer); Public Works Department (Director); Community Development (Director)



**Figure 13 Storm Drain Medallions**

**ONLY RAIN GOES IN THE DRAIN!**

**It's easy to be un-greasy! Recycle cooking oil**



**Soapy wash and rinse water should not flow into street or storm drain**



**Keep organic material out of storm drains too!**



1. Do not pile, blow or discard organic waste such as leaves or grass clippings on or around storm drains (or into streets). Start a compost pile instead!
2. Keep pet waste out of storm drains: Dispose of pet waste in the garbage if mixed with cat litter. Flushing (into toilet not storm drain) is acceptable if there is no litter waste.
3. Stabilize bare areas/ground in the yard immediately (sow seed, add sod or mulch with pine straw for example). Sediment and sediment-stained (turbid/discolored) water are pollutants.
4. Wash cars at the car wash or in your grass. Don't allow dirty/sudsy rinse water to enter streets and storm drains.
5. Apply pesticides and fertilizers according to label instructions. More is not necessarily better!
6. Recycle paints, used motor oil, cooking oil and other materials. For more information on Fairhope's Waste Management programs, including recycling and household hazardous waste, call Public Works Waste Management (251) 990-0192 or visit: [www.fairhopeal.gov/departments/public-works/waste-management](http://www.fairhopeal.gov/departments/public-works/waste-management)

**For more information :**

Storm Drain Medallion Project Contact:  
 Richard Johnson, Public Works Director  
 (251) 928-8003

[Richard.johnson@fairhopeal.gov](mailto:Richard.johnson@fairhopeal.gov)

Check out local Storm Water Projects and Programs @ :

[www.fairhopeal.gov/departments/planning-and-zoning/publications-and-forms](http://www.fairhopeal.gov/departments/planning-and-zoning/publications-and-forms)

\*City of Fairhope MS4 Program (Annual Report and SWMPP)

\*Storm Sewer Inventory & Mapping

\*Fairhope Gullies

\*Fairhope Natural Resource Inventory

\*Homeowner Guide to Detention Pond Maintenance

\*Create a Clean Water Future Program

Funding for this project is provided in part by the Alabama Department of Conservation and Natural Resources, State Lands Division, Coastal Section and NOAA's National Coastal Zone Management Program



[www.fairhopeal.gov](http://www.fairhopeal.gov)



**STORM DRAIN  
 MEDALLION PROJECT**



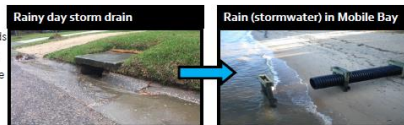
[www.cleanwaterfuture.com](http://www.cleanwaterfuture.com)

**About the Fairhope Storm Drain Medallion Project**

In 2017, the City of Fairhope acquired a grant which included implementation of a program to promote increased awareness of local stormwater standards. Fairhope storm drains are the gateway to our watersheds. Keeping "only rain" in our storm drains leads to watershed protection. Since all of our watersheds empty into Mobile Bay, storm drain protection is of value to us all! As part of this outreach program, storm drain medallions are being installed throughout Fairhope, as a reminder to keep it clean! If you wouldn't drink it, a fish shouldn't either!

**What is a Watershed?** A watershed is the land area that drains to a stream, lake, river or bay.

In Fairhope, all watersheds flow into Mobile Bay.



**The Watersheds of Fairhope**

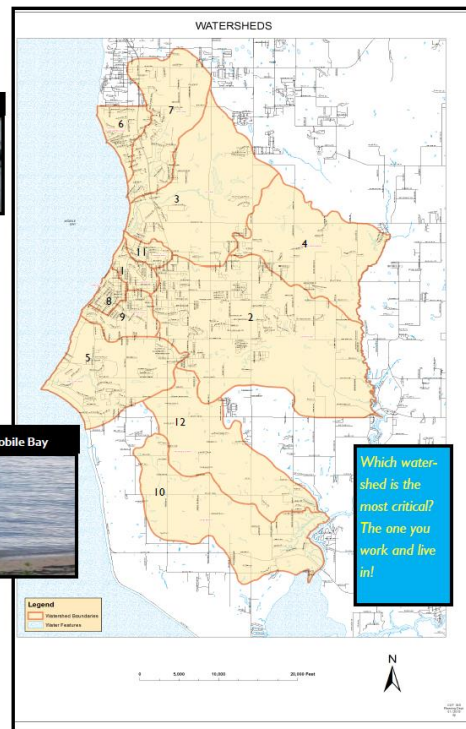
There are 12 watersheds in the City limits of Fairhope. All ultimately release into Mobile Bay.

1. Big Mouth Gully (500 acres)
2. Cowpen Creek (3,056 acres)
3. Fly Creek (1,310 acres)
4. Pensacola Worm Branch (91 acres)
5. Point Clear Creek (1,173 acres)
6. Red Gum / Campbell Gully (54 acres)
7. Rock Creek (678 acres)
8. Stack Gully (397 acres)
9. Tatumville Gully (617 acres)
10. Turkey Branch (88 acres)
11. Volanta Gully (389 acres)
12. Waterhole Branch (600 acres)



Water quality inspector @ Mobile Bay

**Which watershed is the most critical? The one you work and live in!**

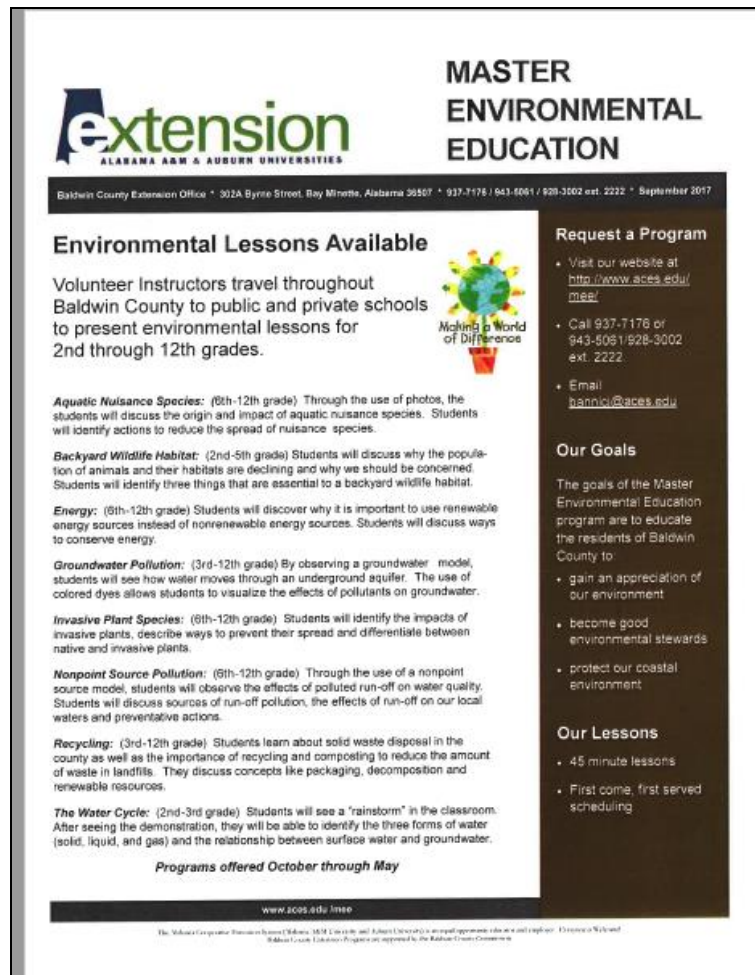


**Figure 14 Storm Drain Medallion Brochure**

## PUBLIC EDUCATION AND INVOLVMENT ON STORM WATER IMPACTS, cont.

### BMP # 2: Public Educational Meetings:

1. Master Environmental Educator (MEE) – Planning and Zoning Department has (1) staff person (Code Enforcement Officer) was trained and participated in this program. City of Fairhope has participated in this program since 2017.  
Responsible Person: Planning and Zoning Department Code Enforcement Officer
2. Mobile Area Earth Day – City of Fairhope is a sponsor of this event yearly and it is held at South Beach Park in Fairhope. The Planning and Zoning Department hosts an informational booth here to showcase local watershed / stormwater information. The City of Fairhope Recycling Committee also has a booth. Additionally, Public Works hosts a recycling event here (usually e-waste or Household Hazardous Waste).  
Responsible Persons: Public Works Dept. Sanitation Officer / Planning and Zoning Dept. Code Enforcement Officers



The brochure is titled "MASTER ENVIRONMENTAL EDUCATION" and features the "extension ALABAMA A&M & AUBURN UNIVERSITIES" logo. It lists "Environmental Lessons Available" such as Aquatic Nuisance Species, Backyard Wildlife Habitat, Energy, Groundwater Pollution, Invasive Plant Species, Nonpoint Source Pollution, Recycling, and The Water Cycle. It also includes a "Request a Program" section with contact information and "Our Goals" and "Our Lessons" sections. The website www.aces.edu/maee is provided at the bottom.

**extension**  
ALABAMA A&M & AUBURN UNIVERSITIES

Baldwin County Extension Office • 302A Byrne Street, Bay Minette, Alabama 36507 • 937-7176 / 943-6061 / 920-3502 ext. 2222 • September 2017

### Environmental Lessons Available

Volunteer Instructors travel throughout Baldwin County to public and private schools to present environmental lessons for 2nd through 12th grades.

**Aquatic Nuisance Species:** (9th-12th grade) Through the use of photos, the students will discuss the origin and impact of aquatic nuisance species. Students will identify actions to reduce the spread of nuisance species.

**Backyard Wildlife Habitat:** (2nd-5th grade) Students will discuss why the population of animals and their habitats are declining and why we should be concerned. Students will identify three things that are essential to a backyard wildlife habitat.

**Energy:** (8th-12th grade) Students will discover why it is important to use renewable energy sources instead of nonrenewable energy sources. Students will discuss ways to conserve energy.

**Groundwater Pollution:** (3rd-12th grade) By observing a groundwater model, students will see how water moves through an underground aquifer. The use of colored dyes allows students to visualize the effects of pollutants on groundwater.

**Invasive Plant Species:** (6th-12th grade) Students will identify the impacts of invasive plants, describe ways to prevent their spread and differentiate between native and invasive plants.

**Nonpoint Source Pollution:** (6th-12th grade) Through the use of a nonpoint source model, students will observe the effects of polluted run-off on water quality. Students will discuss sources of run-off pollution, the effects of run-off on our local waters and preventative actions.

**Recycling:** (3rd-12th grade) Students learn about solid waste disposal in the county as well as the importance of recycling and composting to reduce the amount of waste in landfills. They discuss concepts like packaging, decomposition and renewable resources.

**The Water Cycle:** (2nd-3rd grade) Students will see a "rainstorm" in the classroom. After seeing the demonstration, they will be able to identify the three forms of water (solid, liquid, and gas) and the relationship between surface water and groundwater.

*Programs offered October through May*

[www.aces.edu/maee](http://www.aces.edu/maee)

### Request a Program

- Visit our website at <http://www.aces.edu/maee/>
- Call 937-7176 or 943-6061/920-3002 ext. 2222.
- Email [hannix@aces.edu](mailto:hannix@aces.edu)

### Our Goals

The goals of the Master Environmental Education program are to educate the residents of Baldwin County to

- gain an appreciation of our environment
- become good environmental stewards
- protect our coastal environment

### Our Lessons

- 45 minute lessons
- First come, first served scheduling

The Master Environmental Education Program (MEE) is a project of the Alabama Agricultural Experiment Station and is supported by the Alabama Agricultural Experiment Station. MEE is a project of the Alabama Agricultural Experiment Station and is supported by the Alabama Agricultural Experiment Station.

Figure 15 MEE informational brochure

## PUBLIC EDUCATION AND INVOLVMENT ON STORM WATER IMPACTS, cont.

### **BMP #3: Stormwater alliances:**

1. Coastal Alabama Stormwater Team (CAST) – monthly virtual meeting; Hosted by Auburn Extension; Responsible person: Planning and Zoning Department Code Enforcement Officer
2. Weeks Bay Watershed Implementation Team (WBWIT) – quarterly virtual meeting hosted by Weeks Bay Watershed Coordinator; Responsible Person: Planning and Zoning Department Code Enforcement Officer
3. Eastern Shore MS4 Partners (hosted by City of Daphne) with Daphne, Spanish Fort, Baldwin County, AL-Dot; Responsible Person: Planning and Zoning Department Code Enforcement Officer
4. Mobile Bay National Estuary Program / Clean Water Future program partnership; Responsible Person: Planning and Zoning Department Code Enforcement Officer

### **BMP # 4: City Website** ([www.fairhopeal.gov](http://www.fairhopeal.gov)) has informative links for:

1. Alabama Water Watch
2. ADEM Water Quality Testing
3. Create a Clean Water Future link
4. Rain Garden @ City Hall
5. Waste Management
6. MS4 Annual Report and SWMPP
7. Zoning Ordinance / Subdivision Regulations
8. “Understanding Your Storm Water Management Program” 5 minute video shared with permission of the Mobile Bay NEP.
9. Municipal Code of Ordinances  
([www.fairhopeal.gov/departments/building/building-codes](http://www.fairhopeal.gov/departments/building/building-codes))
  - a. Erosion and Sediment Control Ordinance (#1398; #1603)
  - b. Red Soils Ordinance (# 1423)
  - c. Wetlands Ordinance (#1370)
  - d. Construction Site Waste Ordinance (#958)
  - e. Illicit Discharge Ordinance (#1516)
10. Watershed Management Reports:
  - a. Fly Creek Watershed Restoration Project (2013)
  - b. Volanta Gully Watershed Management Plan (2012)

Responsible Person(s) for City website informative links: Planning and Zoning Department (Code Enforcement Officer); Community Development (Director)

**BMP # 5: Existing Demonstration projects** provide educational signage:

1. Wetland Pond @ North Beach Park – this simulated Wetland Pond was created in 2002, to reduce pathogens entering Mobile Bay, from duck pond water runoff. The pond features native plants and is a joint project from the MBNEP and City of Fairhope.
2. Rain Garden @ City Hall – this 480 square foot rain garden was installed by City employees in 2003 to treat run off from 2,600 square feet of asphalt from the City Hall parking lot. It is maintained monthly. Details of this project are available on the City of Fairhope website ([www.fairhopeal.gov](http://www.fairhopeal.gov))

Responsible Person(s) for Existing Demonstration Projects: Public Works (Director)

**BMP # 6: Community Events:**

1. Mobile Area Earth Day (South Beach Park in Fairhope). Public Works offers E-waste recycling at this event in April. Earth Day was cancelled in April 2020 due to the COVID pandemic.
2. Coastal Clean Up (beachfront parks). This event, held in September, is advertised and recapped on Facebook and other media sources. City provides garbage pickup for this event. Coastal Clean Up was cancelled in September 2020 because of the COVID pandemic
3. Arbor Day (Coastal Community College) - City gives away approximately 1,000 trees yearly each February at this event, hosted by the City of Fairhope.
4. America Recycles Day – Free Amnesty Day recycling drop off of electronics and paper shredding at Public Works, on or about on November 15<sup>th</sup>, annually. Prescription drug drop off is accepted on the same day (drop off at the Police Department).
5. Water Festivals – City of Fairhope supports area schools by offering staff volunteers at water festivals, such as the Baldwin County Water Festival

Responsible Person(s) for Community Events: Public Works (Director); Special Events Coordinator; Planning and Zoning Department (Water Festival)

## PUBLIC EDUCATION AND INVOLVMENT ON STORM WATER IMPACTS, cont.

### BMP # 7: Employee Certifications:

1. The City of Fairhope currently has (2) licensed Commercial Pesticide Applicators, who are licensed by the State of Alabama Department of Agriculture and Industries Pesticides Applicators Certification program. The Parks and Recreation Director also held a certification but retired in October 2019. The recently appointed Parks and Recreation Director will obtain certification in 2020. This 3-year certification aids in pollution prevention by guiding applicators on correct application techniques, which discourages overuse or misuse of pesticides/herbicides (Responsible Person: Public Works Director)
  - a. Landscape Supervisor, Certification # 57285
  - b. Golf Course Grounds Supervisor, Certification # 13550
  - c. Parks and Recreation Director, Certification # 2004867
2. Qualified Credentialed Inspector (QCI) program educates inspectors on correct erosion and sediment control applications and installation techniques. New inspectors hired in 2019 will acquire QCI training within 12 months: -QCI Yearly recertification required: Responsible Person: Building Official; Planning and Zoning Code Enforcement Officer/ Building Official
  - a. P&Z Code Enforcement Officer (Burmeister), Certification # 25712
  - b. P&Z Code Enforcement Officer (LeJeune), Certification # 81295
  - c. New Building Inspector #1 (Nixon): #T6435
  - d. New Building Inspector # 2 (Morris): #T6419
  - e. Building Inspector #3 (Nelson): #68815
  - f. Building Inspector #4 (Taylor): #76249
  - g. Building Inspector #5 (Thomas): #T5330
3. Alabama Water Watch Volunteer Water Quality Monitoring certification for bacterial testing. City staff became certified in November 2019; secured supplies and confirmed testing locations in 2020  
Responsible Person: Fairhope Docks Manager; Planning and Zoning Code Enforcement Officer:
  - a. Planning and Zoning Department (Code Enforcement Officer).
    1. Target area: Fly Creek @ Woodlands Lift Station; Fly Creek @ Retreat Apts.
  - b. Fairhope Docks (Manager). Target area: Fairhope Docks, Fly Creek

#### Counting – Determining Results

- Colonies will begin to appear after 24 hours (optimal counting after 30 hours). To count colonies on a plate, put a white sheet of paper or a plate counting grid underneath Petri dish.
- Count all blue-to-purple colonies on each plate as *E. coli*. Do not count colonies smaller than the period at the end of this sentence.
- Count pink-to-red colonies as other Coliform.
- Record the number of *E. coli* and other coliform on Bacteriological Data Form for each plate.

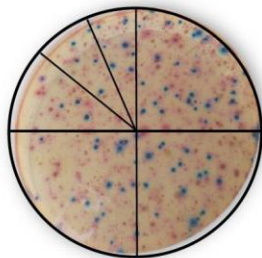


Figure 16 Alabama Water Watch guide to counting *E. Coli*

## PUBLIC EDUCATION AND INVOLVMENT ON STORM WATER IMPACTS, cont.

### **BMP #8: Employee Erosion and Sedimentation Workshop**

The City of Fairhope Planning and Zoning Department hosts an employee Erosion and Sedimentation Workshop annually at City facilities. The purpose of this 1.5 hour workshop is to train existing employees (and inform new employees) of the Construction Site Storm Water Runoff Control standards required by the City of Fairhope. State and Federal regulations are also reviewed. Emphasis is placed on right of way and utility work, as well as other planned and emergency projects, as they may be applicable to the different City of Fairhope departments. City staff reviews City of Fairhope regulations and ordinances regarding storm water standards, which apply to contractors, developers, landowners and City projects. Each department within the City sends employees such as crew leaders, assistant supervisors and/or supervisors.

Responsible Person(s) for the Employee Erosion and Sediment Control Workshop: Planning and Zoning Department (Code Enforcement Officer); Public Works Department (Director); Building Department (Building Official)



**Figure 17 BMP Workshop for City Employees November 2020**

## **PUBLIC EDUCATION AND INVOLVMENT ON STORM WATER IMPACTS, cont.**

### **BMP # 9: Pet Waste Bags in City Parks**

Pet waste bag dispensers are available in City parks (along the Bay and at the Dog Park). Pet waste bags are available free to the public and encourage removal of pet waste from public areas. The Animal Control Officer is responsible for keeping pet waste bag dispensers full, and for enforcement of City Ordinance #988, which requires owners to clean up after their pets on public property. This helps keep pet waste out of storm drains and area waters.

Responsible Person(s): Police Department (Animal Control Officer)

### **BMP# 10: Create a Clean Water Future Campaign**

The City of Fairhope adopted a resolution to accept this campaign in August 2014. This logo is being used on the City of Fairhope website and publications, as well as on over 100 City of Fairhope vehicles. The website ([www.cleanwaterfuture.com](http://www.cleanwaterfuture.com)) contains valuable resources for City employees, residents and educators to use in our community.

Responsible Person: Planning and Zoning Department (Code Enforcement)

### **BMP #11: Notices for public meetings are:**

1. Posted at City Hall-and other City Offices
2. Posted on the City of Fairhope website and on social media
3. Emailed to subdivision groups (POAs/HOAs) and the media

Responsible Person(s): Planning and Zoning Department (Administrative Assistant); City Clerk

### **BMP #12: Subdivision Property Owners Associations Contact List**

A current list of subdivision and property owner associations is kept updated to include email / phone number contact information. This list is used as one form of notification for public meetings, including Planning Commission meetings

Responsible Person(s): Planning and Zoning Department (Administrative Assistant)



## PUBLIC EDUCATION AND INVOLVMENT ON STORM WATER IMPACTS, cont.

### **BMP #13: City of Fairhope Planning Commission**

The Fairhope Planning Commission meeting is a monthly meeting (first Monday of each month at 5 p.m.). It is held at the Fairhope City Hall and is open to the public. The objective and purpose of the Fairhope Planning Commission is to promote the health, safety, morals and general welfare of present and future residents of Fairhope and to bring about the coordinated and efficient development of the City. The Planning Commission evaluates planning and growth issues and makes recommendations to the City Council regarding comprehensive plan updates, zoning ordinance amendments, re-zonings and site plan reviews. Storm water standards are a component of the development review process. The Planning Commission also serves as the annual review board for the Fairhope Storm Water Management Plan (SWMPP).

Responsible Person(s): Planning and Zoning Department (Director)

### **BMP #14: Fairhope Environmental Advisory Board (FEAB)**

The City of Fairhope (via Planning and Zoning Department support) facilitates and takes minutes at this monthly volunteer meetings, which focuses on environmental issues. This advisory committee currently has eight (8) active members. The FEAB makes recommendations to City leaders and offers a third-party evaluation of City procedures and regulations. A frequent topic of the meeting is stormwater management.

Responsible Person: Planning and Zoning Department (Code Enforcement Officer)

### **BMP# 15: Sanitary Sewer Overflow On-Site Signage**

Signs are added as soon as a spill is discovered.

Responsible Person: Water and Sewer Director



**Figure 18** Example of signage used to notify the public of areas of sewer overflows

## PUBLIC EDUCATION AND INVOLVMENT ON STORM WATER IMPACTS, cont.

### ➤ Measurable Goals

One Year Goals:

#### 1. Storm Water Education / Seminar

**Responsible Department:** Planning and Zoning Department (Director)

**Goal:** At least one staff shall member attend one storm water related workshop, conference or seminar annually

**Due:** December 2021

#### 2. Storm Water Article on Social Media (Facebook)

**Responsible Department:**

Community Development (Director)

**Goal:** Ensure there is at least one storm water related article on Facebook per year

**Due:** December 2021

#### 3. Erosion and Sediment Control (BMP) Workshop for City Employees

**Responsible Department:** Planning and Zoning Department (Code Enforcement)

**Goal:** Planning and Zoning along with the Building Department and Public Works Dept. hosts a 1.5 hour workshop for City employees. BMP techniques and recent storm water projects are discussed as well as City, State and Federal regulatory information

**Due:** December 2021

#### 4. Public Educational / Input Meeting for Storm water Issues

**Responsible Department:** Planning and Zoning Department (Planning and Zoning Department / Director)

**Goal:** Facilitate at least one educational meeting per year (such as through FEAB and/or Planning Commission). This meeting will allow the public to offer input on the City of Fairhope's storm water plans and policies.

**Due:** December 2021

#### 5. SWMPP Review

**Responsible Department:** Planning and Zoning Department (Director)

**Goal:** Facilitate review of stormwater management plan yearly, through public forum such as Planning Commission and/or City Council. Send out notices accordingly.

**Due:** December 2021

#### 4.0 MINIMUM CONTROL MEASURE # 2: ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)

- **Requirements:** Develop, implement and enforce a program to detect and eliminate illicit discharges into the regulated MS4; Develop a storm sewer map and update annually (to include locations of outfalls and structural BMPs); Effectively prohibit to the maximum extent practicable under State or local law through ordinance, or other regulatory mechanism, non-storm water discharges into the MS4 and implement appropriate enforcement procedures and actions; Develop and implement a plan to detect and address non-storm water discharges, including illegal dumping, to the system; develop and list in SWMPP ordinances to effectively prohibit non-storm water discharges to the MS4; implement a dry weather screening program designed to detect and address non-storm water discharges to the MS4 –100% of all outfalls every 5 years or about 20% per year; priority areas as outlined in the SWMPP (currently set at about 25% per year since this must be “more frequent” than non-priority outfalls), listing outfalls screened; procedures for tracing source of suspect illicit discharges; procedures for eliminating an illicit discharge; procedures for notifying ADEM of illicit discharges; mechanism for the public to report illicit discharges; training program for staff; update MS4 map annually; document illicit discharge complaints and action taken. More information on these requirements can be found in the general permit.
- **Responsible Persons:** Planning and Zoning Department; Public Works; Building Department; Water and Sewer Department, Volunteer Fire Department, Public Works Department; Water and Sewer Director; Community Development Director
- **Rationale Statement:** Illicit discharges are generally any discharge into a storm drain system that is not composed entirely of storm water. The City of Fairhope has an IDDE program, which is based on enforcement of our Illicit Discharge Ordinance (Ordinance # 1516). The Illicit Discharge ordinance was amended in 2014 to emphasize regulation and enforcement on all property owners, not just “facilities”. A written Standard Operating Procedure (SOP) has been developed for illicit discharge detection and elimination.



**Figure 19 Staining in front of storm drain indicates illicit discharge, Song Grove subdivision, August 2020**

## ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE), CONT.

The City of Fairhope Illicit Discharge ordinance states:

- (a)

It shall be unlawful for any person, firm, or corporation to discharge a pollutant into the City of Fairhope's Municipal Separate Storm Sewer System (stormwater system) in the City of Fairhope Police Jurisdiction that will have a deleterious impact on the environment. Any pollutant, associated with an industrial or commercial activity that is covered by the National Pollutant Discharge Elimination System as dictated by 40 CFR 122.26, can be discharged to the city stormwater system only if the discharge is covered by, an NPDES permit for stormwater.
- (b)

Where an illicit discharge is reasonably believed by the city to be originating from private or public property, structure, or other facility, it shall be the right of the city to designate employees, bearing proper credentials and identification, to enter property or facility grounds for the purpose of inspection, observation, measurement, sampling and testing in accordance with this article.
- (c)

Authority is hereby granted to the city by and through its duly designated enforcement officers to halt any discharge from private or public property, structure, or other facility that is reasonably believed by the city to be potentially harmful to human health or the environment.
- (d)

All costs incurred by the city in association with the ceasing of a potentially harmful discharge will be reimbursed by the property owner of the discharging property, structure, or facility. The city may charge the cost against the subject land as a municipal lien, charges to be recovered in a suit at law against the owner.
- (e)

The penalty for violation of any provision of this ordinance shall be as specified for general penalty in [section 1-8](#) of the Code of Ordinances of the City of Fairhope.

## ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE), CONT.

Procedures for tracing and removing the source of the illicit discharge are written into the ordinance, as well as the City of Fairhope Standard Operation Procedure for Illicit Discharge. This SOP was updated in November 2018 to reflect the Water and Sewer Department capability to video up to 500' of sewer line.



Planning Department  
Illicit Discharge Standard Operating Procedure (SOP)  
(Dry Weather Screening / Field Assessments)

### **Background and Introduction**

Dry weather screening and field assessments of storm water infrastructure is a key element to proper Illicit Discharge Detection and Elimination. Annual dry weather screening is a requirement of the City's NPDES storm water permit # ALR040040. The City's Planning Department, in conjunction with the Public Works Department, conducts annual dry weather screening of 20 to 25% of all outfalls annually as listed in the Storm Water Outfall Inventory. Additionally, the Public Works Department (Street Division) oversees maintenance and year around general field assessments of City right of way and storm water infrastructure, during routine job duties. Additionally, the Planning Department investigates and issues enforcement on general Illicit Discharge complaints, such as commercial / residential rinsing and run off, and construction site rinsing and run off. The Fairhope Voluntary Fire Department responds to and is responsible for follow up on 911 based Illicit Discharges (such as chemical / fuel spills). The Fairhope Voluntary Fire Department is responsible for contacting the Emergency Management Agency on 911-based complaints.

### **General Concepts**

City of Fairhope Public Works Department is continuously maintaining and observing City right of way and storm water infrastructure through routine field assessments (during and after significant rain events). The Planning Department, in coordination with the Public Works Department, conducts a documented annual "Dry Weather Screening" of outfalls within the City of Fairhope MS4 jurisdiction. This screening is documented in the MS4 Annual Report.

### **Field Assessments / Dry Weather Screening**

If a potential illicit discharge is detected during a field assessment, the Public Works supervisor in charge will notify the Planning Department to validate the illicit discharge. The Planning Department Code Enforcement Officer will then follow protocol listed in the flow chart attached for Dry Weather Screening. If a potential illicit discharge is detected during a dry weather screening, protocol will be followed according to the flow chart, attached for Dry Weather Screening.

**Dry Weather Screening is conducted by City Staff (Public Works Department and Planning and Zoning Department) at 20% of non-priority outfalls and 25% of priority outfalls annually.** Schedule is listed in the current Storm Water Management Program Plan. Priority outfalls are those which ultimately drain to Weeks Bay, an Outstanding National Resource Water. The City of Fairhope has over 630 outfalls as per the Storm Water Outfall Inventory (2012) which is updated annually.

Figure 20 SOP for Illicit Discharges, pg. 1

### **Reporting**

The Planning Department Code Enforcement Officer will ensure proper notification of other City Departments and environmental agencies (by email, telephone or mail). Non-compliant sites will be handled according to the SOP for Non-compliant Site Reporting Procedures. All enforcement action such as Municipal Offense Tickets and Court Summons are authorized by the Planning Director before issuance.

### **Site Inspection**

Upon a complaint or suspected illicit discharge, the Planning Department Code Enforcement Officers perform site inspections to validate or dismiss the potential illicit discharge. If it is necessary to look up into a storm drain pipe the City of Fairhope Water and Sewer Department will be called upon to assist. The Water and Sewer Department owns a sewer camera which is used to look up into pipes, up to 500'. Beyond 500', the City of Fairhope can use an outside contractor for videoing beyond 500' of storm pipe or sewer line. If necessary, Fire Department would be dispatched to provide haz-mat preparation and facilitate clean-up, which would initiate a 911-based response. Otherwise, the Planning Department reports any water body or critical area impact to the appropriate State/Federal agency (ADEM/ USCOE).

### **Sampling**

If a general illicit discharge is observed, and the nature of the discharge is not known, the City of Fairhope Planning Department will engage a testing laboratory to perform testing.

### **Enforcement & Follow-up**

If the report is validated, the Planning Department Code Enforcement Officer will contact the responsible party and take all necessary steps (approved by Planning Director) needed to stop the illicit discharge which may include any and all actions documented in the City's Illicit Discharge Ordinance. Corrective action may also include dispatch of the City of Fairhope Street Sweeper for clean up on City property and right of way, at a \$300 minimum charge to the responsible party. Enforcement action such as Municipal Offense Tickets and/or Court Summons must be authorized by the Planning Director. Discharges originating from other areas (outside the City of Fairhope MS4) will be reported to that jurisdictional authority.

### **Documentation**

All observations and actions will be documented in a report which will be tracked in the Planning Department Code Enforcement Officer's database and reported to ADEM in the City's Annual MS4 Phase II Report.

ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE), CONT.

Figure 21 SOP for Illicit Discharges, pg. 2

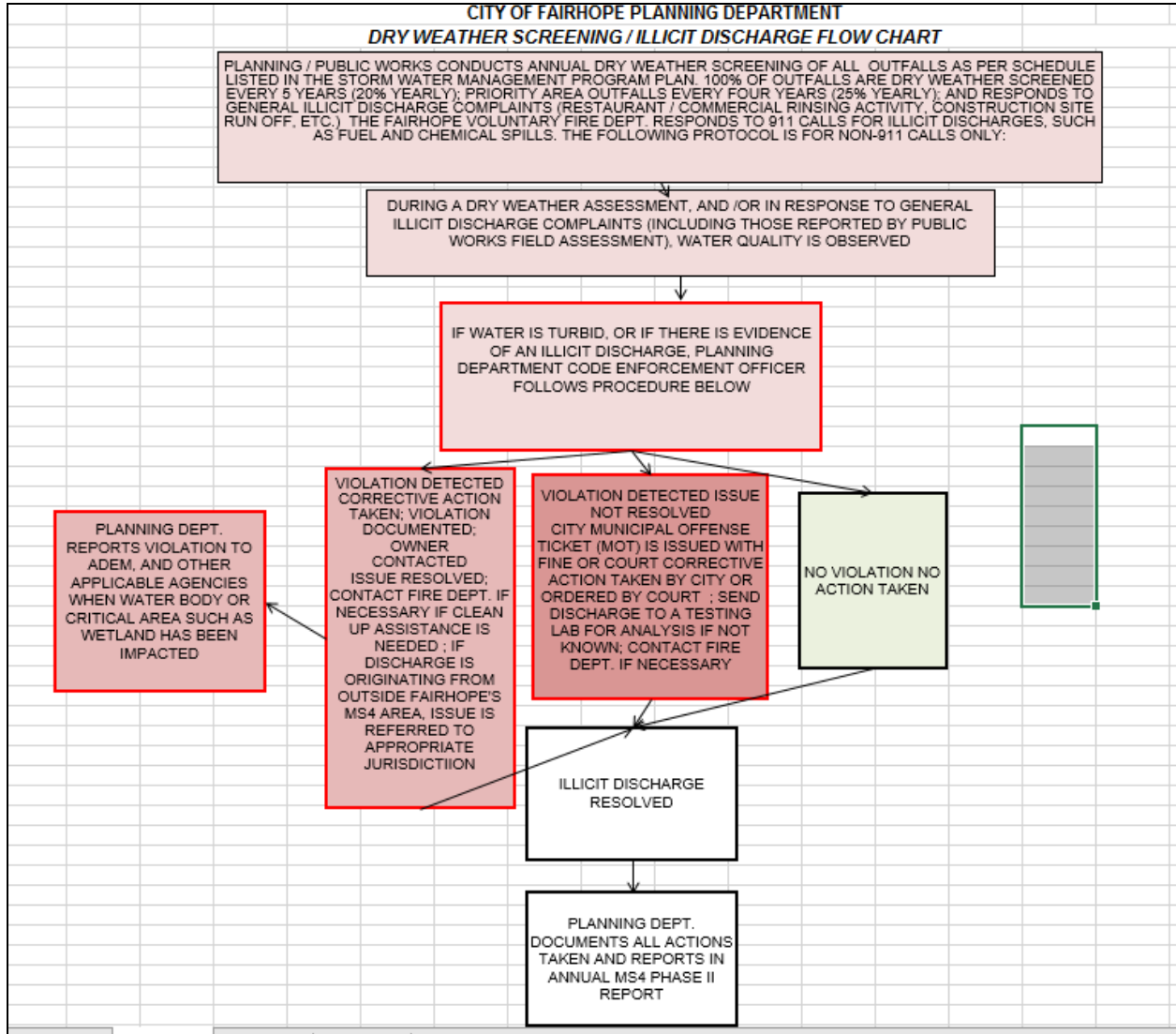


Figure 22 SOP Flow Chart for Illicit Discharges

## ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE), CONT.

The Planning and Zoning Department Code Enforcement Officer uses a monthly complaint log to track complaints and corrective action procedures taken. Tracking is done through Munis software. Smoke tests/video inspections are periodically performed throughout the year by the Water and Sewer Department to help detect infiltration from faulty sewer lines.

Building Inspectors ensure new development and redevelopment activities are compliant upon each construction inspection.

Areas zoned "M-1" (Light Industrial District) are considered an important area for IDDE monitoring. The general location of M-1 zoned areas:

- a. Airport (CR 32)
- b. Nichols Avenue/Middle Street @ S. Greeno Road
- c. South Section Street @ Pecan (City of Fairhope Public Works facility)

The screenshot displays the 'Complaint/Violation Entry' interface in the Munis software. The main form contains the following information:

- Reference:** 1389, Source: MANUAL, Parcel required:
- Case reference:** ILLICITDISCHARGE/PICK
- Originating dept:** 10800, Planning Department
- Responsible dept:** 10800, Planning Department
- Parcel ID:** 117434, Record ID: 8285
- Location:** [Redacted] STREET, 8532
- Location desc:** PICKLES PAINTING, CONTRACTOR
- Municipality:** FAIR, FAIRHOPE
- Severity:** 0, Active
- Status:** 6, Resolved
- Inspector:** KWB, KIM BURMEISTER
- Reported date/tm:** 08/05/2020
- Comply by:** 08/06/2020
- Compliance ins:** KIM BURMEISTER
- Comment:** HAMRICK ISSUED WARNING

Below the main form is a table showing the complaint history:

Complaint/Violation Area	Severity	Comply Days	Comply By	Complied	Comment
ILLICIT DI	0	<input checked="" type="checkbox"/>	0	08/05/2020	CONTRACTOR ALLOWED PAINT DRAIN ON WISTERIA DOWNHILL [Redacted] STREET

At the bottom of the interface, there are navigation buttons: Inspections, Dept/Board Reviews, Text, 311 Text, Special Conditions, Find Related, and Find Compliant.

Figure 23 Munis complaint record example



All City outfalls identified in the Storm Water Outfall Inventory are assessed at least once every 5 years. Priority construction area (drains to Weeks Bay) outfalls are monitored more frequently (every 4 years). This means about 20% of non-priority outfalls and about 25% of priority outfalls are assessed yearly. The 5-year (2021-2025) monitoring schedule is in the Measurable Goals section below.

<b>City of Fairhope</b>		
<b>MS4 Outfall Assessment Schedule 2021</b>		
As per 2012 Storm Sewer (outfall) Inventory (including yearly updates)		
Watershed	Number of outfalls inventoried	MS4 Monitoring Requirement / 5 yr. Monitoring Schedule (2020-2024)
Big Mouth Gulley	70 (includes one Major Outfall @ Mobile Bay)	2023 Frequency: every 5 years
Cowpen Creek*	191	2021: Pg. 1-90 2022: Pg. 91-191 (or to end) Frequency: Every 4 years
Fly Creek*	104 (includes one Major Outfall @ Mobile Bay)	2023
Pensacola Worm Branch*	14	2024
Point Clear Creek	35	2022
Red Gum	0	n/a
Rock Creek	103 (includes one Major Outfall @ Mobile Bay)	2024
Stack Gully	23 (includes six Major Outfalls @ Mobile Bay)	2023
Tatumville Gully	54 (includes three Major Outfalls @ Mobile Bay)	2025
Turkey Branch*	5	2024
Volanta	33 (Includes one Major Outfall @ Mobile Bay)	2022
Waterhole Branch*	18	2021
<b>TOTAL AS OF 11/17/2020</b>	<b>650 OUTFALLS (INCLUDES 13 MAJOR OUTFALLS ALONG BAY)</b>	

\*Priority Construction Area (Drains to Weeks Bay, an ONRW: Outstanding National Resource Water)

NOTE: HARD COPY DATA SHEET AVAILABLE IN PLANNING DEPARTMENT OF COMPLETE STORM SEWER INVENTORY FOR EACH OUTFALL LISTED.

This is a MS4 requirement (Measurable Goal / IDDE section). We must visually inspect non-priority drains once every 5 years (priority area drains once every 4 years). This is what we have stated in the SWMPP 2020.

The program shall include at a minimum, the following:

....

iii. A dry weather screening program designed to detect and address non-storm water discharges to the MS4. This program must address, at a minimum, dry weather screening of fifteen percent (15%) of the outfalls once per year with all (100%) screened at least once per five years. Priority areas, as described by the Permittee in the SWMPP, will be dry weather screened on a more frequent schedule as outlined in the SWMPP. If any indication of a suspected illicit discharge, from an unidentified source, is observed during the dry weather screening, then the Permittee shall follow the screening protocol as outlined in the SWMPP.

Figure 24 Outfall Assessment 5-year Schedule for 2021

➤ **BMPs / Mechanisms** used for IDDE program compliance:

1. Illicit Discharge Ordinance #1516
2. Code Enforcement Officers (2) (Planning and Zoning Department)
3. Sanitation Officer (Public Works Department)
4. Residential Curbside Cooking Oil Recycling Program
5. Household Hazardous Waste drop off site for residents
6. *Greener by the Yard* pamphlet
7. Staff Meetings (Public Works)
8. City of Fairhope Watershed Map
9. Storm Water Outfall Inventory & Mapping
10. Volunteer Fire Department (Spills)
11. Create a Clean Water Future Campaign
12. Sewer Capacity Study
13. Video of Sewer Lines to detect leaks
14. Survey 1-2-3 Application for Outfall Assessment

**BMP # 1: Illicit Discharge Ordinance** – states *“It shall be unlawful for any person, firm, or corporation to discharge a pollutant into the City of Fairhope’s Municipal Separate Storm Sewer System (stormwater system) in the City of Fairhope Police Jurisdiction that will have a deleterious impact on the environment.”*.

Penalty for non-compliance: Up to \$500

Responsible Person(s) for Illicit Discharge Ordinance: Planning and Zoning Department (Code Enforcement Officer); Public Works Department (Sanitation Officer); Building Department (Building Official)

**BMP # 2: Code Enforcement Officer (Planning and Zoning Department)**

The City of Fairhope employs two full time (2) Code Enforcement Officers, in part, to investigate and issue corrective action on illicit discharge issues. Standard Operating Procedures (SOPs) for enforcement and tracking were developed in 2014 and is updated yearly if necessary.

**BMP # 3: Sanitation Officer (Public Works Department)**

Fairhope employs a full time Sanitation Officer full time to manage the City waste management operations, and to enforce waste management laws of the City.

**MP # 4: Cooking Oil Recycling:** The City of Fairhope has a used cooking oil recycling program for residents. Containers for cooking oil collection are available free upon request to residents. Residents may bring in used cooking oil for recycling or may place the containers on the right of way for curbside pickup. Restaurants are not allowed to dispose of oil within the City of Fairhope waste stream and must set up a cooking oil recycling program. Sanitation and recycling crews (Public Works Department) are trained to report illegal dumping / rinsing activities, including inappropriate disposal of cooking oil. Responsible Person(s): Public Works Department (Sanitation Officer)

**BMP # 5: Household Hazardous Waste:** The City of Fairhope Public Works Department manages a household hazardous waste (HHW) drop off site for residents, free of charge. The HHW drop off site is located at 555 South Section Street. This site encourages the correct disposal of paints, motor oil and other chemicals, as well as electronic waste, automobile batteries and tires. There is a minimum recycling fee for tires (based on industry standards). There is no charge for other household hazardous waste materials dropped off, including electronic waste. On average, the City of Fairhope recycles about 1,700 gallons of household hazardous waste yearly (based on the 2018 recap from Public Works).

**Responsible Person:** Public Works Department (Director)

**BMP # 6: *Greener by the Yard***

This pamphlet includes information on pollution prevention, good housekeeping and illicit discharges. It was created and published by the Weeks Bay Watershed Project and is available in hard copy (Planning and Zoning Department) and on the City website.

**Responsible Department:** Planning and Zoning Department

**BMP # 7: Staff Meetings –** Public Works employees are trained throughout the year in weekly staff meetings to report illegal dumping / rinsing activities, including inappropriate disposal of cooking oil, rinsing of paints and chemicals into storm drains, etc. The Public Works Department is the largest City Department, encompassing waste management, landscaping, streets and construction (about 50 full time employees). R

**Responsible Department:** Public Works

**BMP # 8: Watershed Map**

City of Fairhope has a watershed map which is used as a planning and construction tool. It is available on-line (“Natural Resource Inventory”) and in the Planning and Zoning Department and in Public Works. Planning and Zoning Department (GIS) is responsible for updating, printing and providing this map.

**Responsible Department:** Planning and Zoning

**BMP # 9: Storm Water Outfall Inventory & Mapping**

The City of Fairhope Planning and Zoning Department completed a survey of the City outfalls and infrastructure in 2012. This information was provided through GIS, and a map has been produced, including designation of 13 major (Bay) outfalls. New storm water outfall information is updated annually in hard copy form to include new development. As of November 20, 2020, the City of Fairhope Stormwater Outfall Inventory reflects 650 outfalls. The Planning and Zoning / GIS Department is working to update the map showing all outfalls and major outfalls, including outfalls added since 2012.

**Responsible Department:** Planning and Zoning

**BMP # 10: Volunteer Fire Department / Fuel Spills:** The Fairhope Volunteer Fire Department is responsible for responding to and facilitating removal of fuel / chemical spills.

**Responsible Department:** Volunteer Fire Department (Chief)

**BMP #11: Create a Clean Water Future Campaign**

The City of Fairhope adopted a resolution to accept this campaign in August 2014. This is mentioned in MCM#1 under “Public Education”. This campaign addresses storm water pollution, including IDDE. Create a Clean Water Future logo is being used on applicable City of Fairhope publications and business cards.

**Responsible Department:** Planning and Zoning

## ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE), CONT.

### **BMP #12: Sewer Capacity Study**

Fairhope Utilities has been working on system improvements since 2017. These improvements were commissioned by the Sewer Capacity Study [www.fairhopeal.gov/home/showdocument?id=15025](http://www.fairhopeal.gov/home/showdocument?id=15025) produced in 2017. This study identified many weak points in the system some of which are related to deteriorating or aging infrastructure and indicated overloading of certain areas within the system, due to rapid growth in the past 5 years. As a result of this study, the Utility Department has completed the first Sewer transmission improvement project along Fairhope Avenue, Fairwood Boulevard, Bayou Drive and Section Street, with a second transmission project underway moving South along Church Street. The second project is under way and will make improvements to aging infrastructure including water, sewer, gas and storm drainage along the Church Street Corridor between Oak Street and Fels Ave.

2020 with 2 hurricanes and heavy rain, and a global pandemic has caused some slow down to progress. The hurricanes have helped to verify concerns within the system and revealed others that need to be addressed. With the Bayou Drive, Fairwood, Fairhope Ave. project complete, a second project extending to the east has commenced and will address sewer collection system improvements within the Dog House Lift Station sewer shed. The project will increase capacity of the system through implementation of new sewer mains, lift station upgrades, and providing options for sewer routing in the event of an emergency.

In 2020 The City of Fairhope has also received Restore funding that will be conveyed through ADCNR. This funding will allow the improvement to 13 lift stations and work to address inflow and infiltration (I&I) in 40,000 feet of sewer main, 10,000 feet of sewer laterals and 250 manholes. Addressing the I&I will be a huge step in the right direction to curb the SSO's Fairhope has been experiencing recently. This work is in progress but will take time to implement the improvements. Fairhope Utilities is working diligently to provide the highest and best use with the funds available to provide the most beneficial improvement to the collection system possible.

**Responsible Department:** Water and Sewer



## Fairhope Times



Nov 24 at 12:40 PM • Public

New sewage collection pipe now being installed on Church Street. A \$5.1 million project to increase sewage capacity, improve storm water drainage, and upgrade other utilities all the way to Fels Avenue.



Figure 25 On-line article about sewer project, Church Street. November 2020

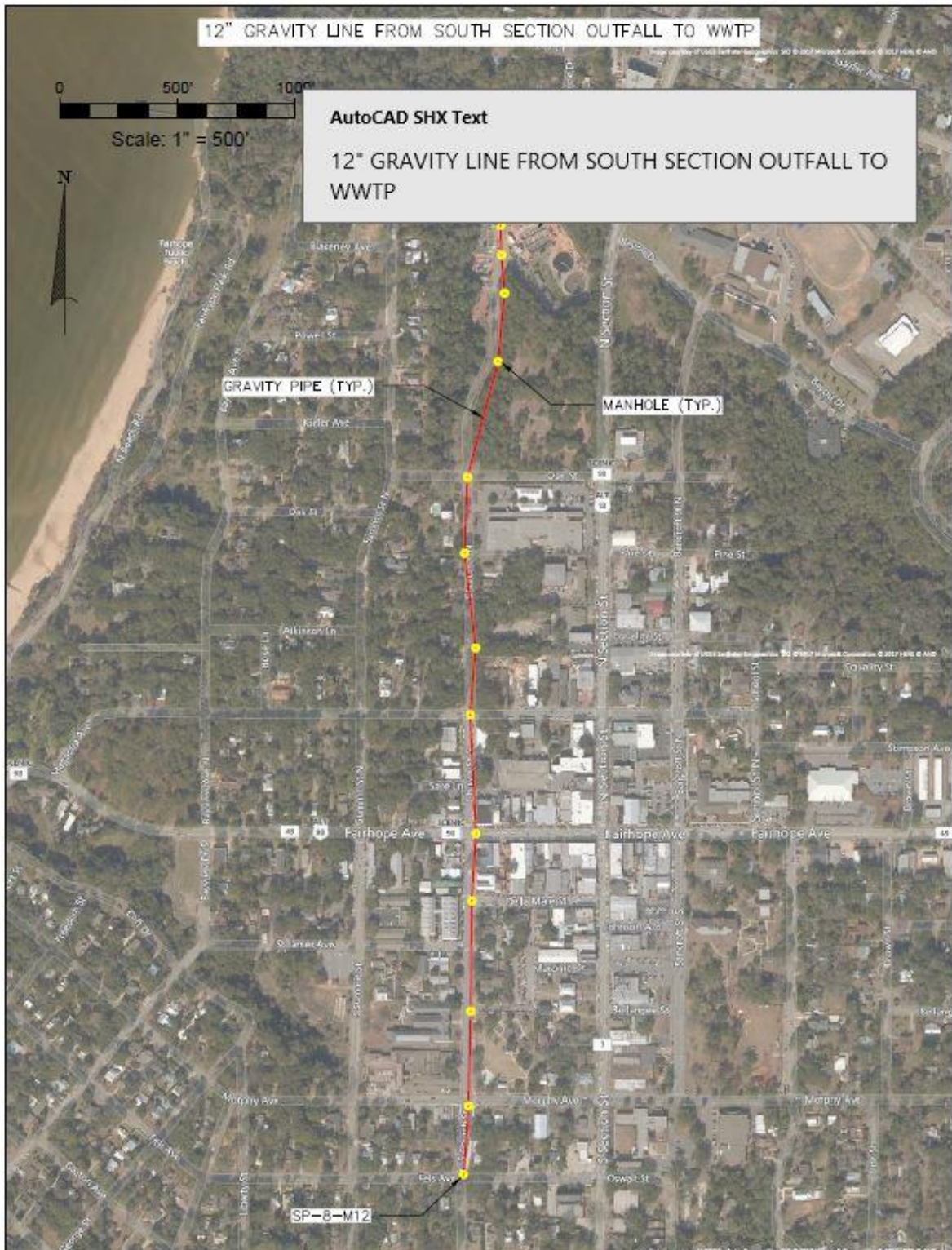


Figure 26 Map of Church Street project area from Sewer Capacity Study

### BMP #13: Video of Sewer Lines


Water and Sewer Department staff have the capability to perform video inspections of sewer lines to locate potential sources of sewer leaks. The Water and Sewer Department own a camera which can inspect sewer pipes and storm drains up to 500' long.

**Responsible Department:** Water and Sewer

CCTV pictures of MH12-2-W2\_MH12-2-W1  
For Fairhope

Work Order	Surveyed On 2019/05/29
Street Name 854 Edwards Ave	Video
City Name Fairhope	Weather
Location	Survey Direction Downstream
From Manhole MH12-2-W2	To Manhole MH12-2-W1

Setup 1 Counter 186.7 Ft



Observation: Miscellaneous Survey Abandoned  
Counter: 186.7  
From: To:  
Remarks: Survey is abandoned due to lateral intrusion

08:39 29.05.19 LC1: +0186.00 ft LC2: -0000.00 ft

C:\FLEX6\Snaps\MAY 2019 NEW18.jpg 2019/05/29

**Pipe Details:**

Year Laid	Shape Circular	Size 10	By ins
Material Polyvinyl Chloride	Lining	Use Sanitary	

**Observation:** Miscellaneous Survey Abandoned

**Comments:** Survey is abandoned due to lateral intruding into the main line.


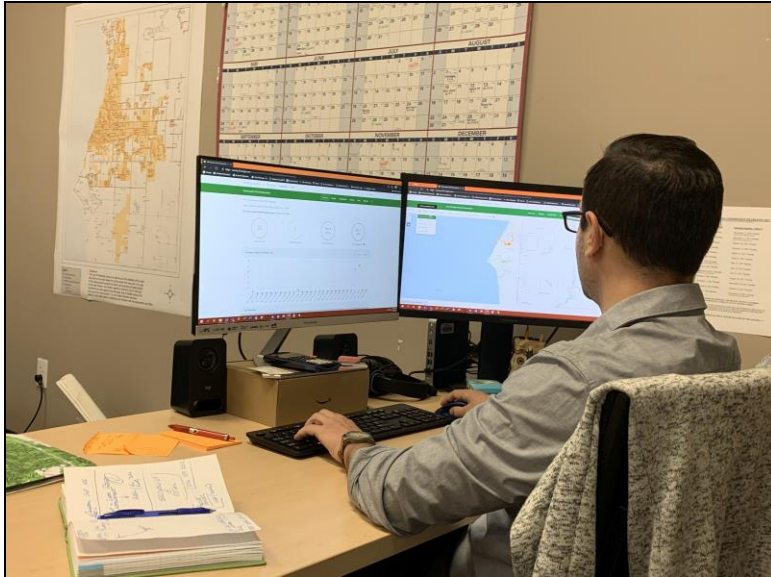
 PipeLogix Inc.  
Phone: 866-299-3150  
Fax: 760-406-6023

Figure 27 Video inspection of sewer lines, 2019

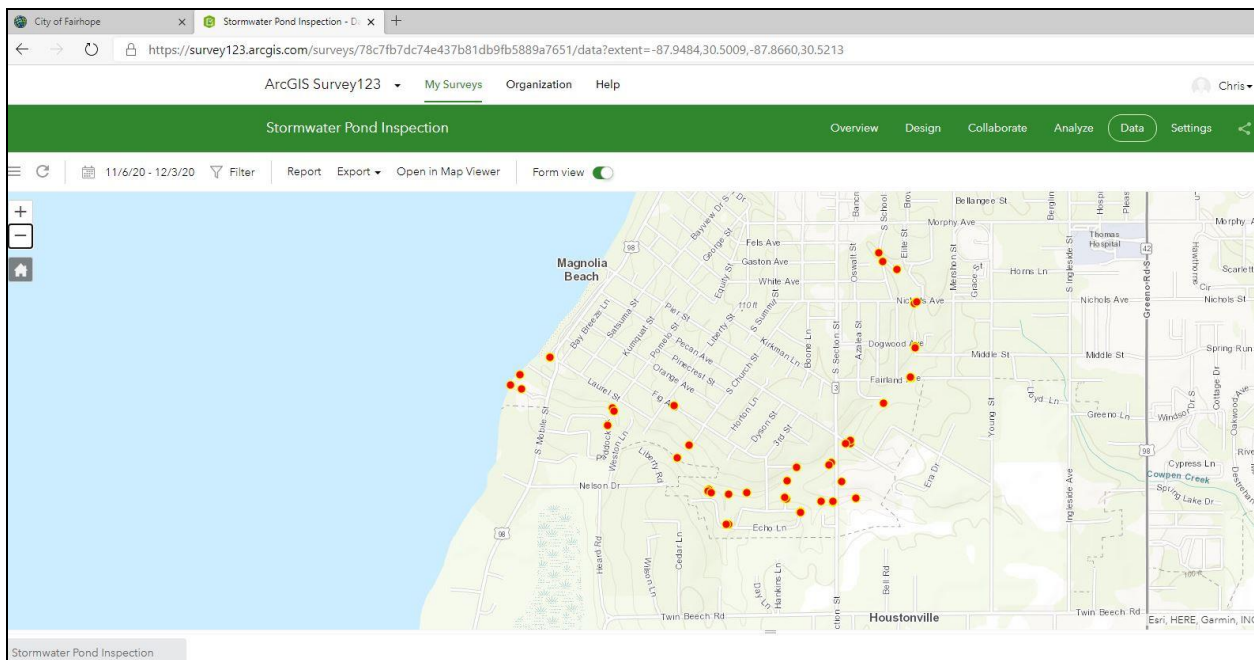
### **BMP#14: Survey 1-2-3 Application for Outfall Assessment-Field Collection**

In 2020, the Planning and Zoning Department initiated digitizing the outfall inventory by creating an on-line tool for field assessment. Planning and Zoning GIS staff customized the Survey 1-2-3 application for field collection of outfall data. The customized tool uses a general stormwater facility monitoring sheet but in digital form and data is collected via smart phone. Upon each individual outfall assessment, the location of the outfall is immediately pinned and placed on an ESRI-based map which will updated through dry screen outfall inspections annually.

**Responsible Department:** Planning and Zoning, GIS



**Figure 28 GIS Planner working on Survey 123 application for field assessment**



**Figure 29 Survey 123 map with outfall assessment locations (Tatumville, 2020)**



## ILLCIT DISCHARGE DETECTION AND ELIMINATION (IDDE), CONT.

### ➤ Measurable Goals

#### One Year Goals:

##### 1. Storm Water Outfall Inventory Update

**Responsible Department:** Planning and Zoning Department

**Goal:** Update hard copy inventory annually to include new development, redevelopment and routine corrections. (*Planning and Zoning Manager*)

**Due:** December 2021

##### 2. Video of Sewer Lines

**Responsible Department:** Water Department

**Goal:** Conduct video test on priority sewer lines annually to detect sewer leaks or illegal connections. Document findings and corrective action taken (*Water and Sewer Director*)

**Due:** December 2021

##### 3. Public Works Illicit Discharge Detection Meeting

**Responsible Department:** Public Works

**Goal:** Alert and advise waste management crews to look for illicit discharge indicators such as sheen in or near storm drains, leaking dumpsters, etc. (*Public Works Director*)

**Due:** December 2021

##### 4. Dry Weather Screening of Outfalls

**Responsible Department:** Planning and Zoning Department / Public Works / Utility Director

**Goal:** a. NON-PRIORITY OUTFALLS (do not drain to Weeks Bay): Assess at least once every 5 years per 5-year schedule. Use MS4 Stormwater Outfall Inventory (data sheets, map) to reference outfalls. Document outfalls assessed; date; conditions and maintenance requirements (and when complete). This will satisfy the 5-year requirement for 100% of all outfalls every five years. Planning and Zoning Department and Public Works Department will conduct these assessments annually.

**Due:** \*NONE SCHEDULED\*

**Goal:** b. PRIORITY OUTFALLS (DRAINS TO WEEKS BAY): Assess at least once every 4 years per 5-year schedule. Planning and Zoning Department and Public Works Department will conduct these assessments annually. 108 total outfalls due for assessment in 2021

**Due:** December 2021: Cowpen Creek outfall pages 1-90;

Waterhole Branch 18

11/16/2020

Stormwater Pond Inspection

## Stormwater Pond Inspection

Submitted by: cambron

Submitted time: Nov 16, 2020, 10:34:09 AM

Watershed:

**Tatumville**

Tatumville Outfall Data Point:

**TG-281646-A**

Owner Change Since Last Inspection:

**No**

Closest Address:

**555 S Section Street**

Site Status:

**Drainage area South side of mechanic shop.**

Date and Time of Inspection:

**Nov 16, 2020, 10:08:00 AM**

<https://survey123.arcgis.com/surveys/78c7fb7dc74e437b81db9fb5880a7651/data?extent=-87.0054,30.5061,-87.0013,30.5074&mapTableRatio=72.28&objectIds=8&basemapItemid=88de95d4e0244cb...> 1/11

11/16/2020

Stormwater Pond Inspection

Site Conditions:

**Sunny and cool around 55 degree.**

Pond Type:

Type:

- **Dry**

Embankment Inspection Items:

Vegetation Inspected?

**Yes**

Vegetation Maintenance?

**Yes**

Erosion Inspected?

**Yes**

Erosion Maintenance?

**Yes**

Animal Burrows Present?

**No**

<https://survey123.arcgis.com/surveys/78c7fb7dc74e437b81db9fb5880a7651/data?extent=-87.0054,30.5061,-87.0013,30.5074&mapTableRatio=72.28&objectIds=8&basemapItemid=88de95d4e0244cb...> 2/11

**Figure 30 Outfall assessment sheet generated from Survey 1 2 3 app**

11/16/2020 Stormwater Pond Inspection

Animal Burrows Maintenance?  
**No**

Cracking, Sliding, Bulging?  
**No**

Cracking, Sliding, Bulging Maintenance?  
**No**

Drains Blocked/Non Functioning?  
**No**

Drains Blocked/Non Functioning Maintenance?  
**No**

Leaks or Seeps?  
**No**

Leaks or Seeps Maintenance?  
**No**

Slope Protection Inspected?  
**Yes**

[https://survey123.arcgis.com/surveys/78c7b7dc74e437b81db9fb5889a76511/data?extent=-87.9054,30.5061,-87.9013,30.5074&mapTableRatio=72.28&objectIds=8&basemapItemId=86de95d4e0244cb... 3/11](https://survey123.arcgis.com/surveys/78c7b7dc74e437b81db9fb5889a76511/data?extent=-87.9054,30.5061,-87.9013,30.5074&mapTableRatio=72.28&objectIds=8&basemapItemId=86de95d4e0244cb...)

11/16/2020 Stormwater Pond Inspection

Slope Protection Maintenance?  
**No**

Outfall Structure Box Inspection Items:

Low Flow Orifice Functional?  
**No**

Low Flow Orifice Maintenance?  
**No**

Cracks, Displacement, Spalling?  
**No**

Cracks, Displacement, Spalling Maintenance?  
**No**

Outfall Pipe Condition Inspected?  
**Yes**

Outfall Pipe Condition Maintenance?  
**No**

Rip Rap Filter Berm Inspected?  
**Yes**

[https://survey123.arcgis.com/surveys/78c7b7dc74e437b81db9fb5889a76511/data?extent=-87.9054,30.5061,-87.9013,30.5074&mapTableRatio=72.28&objectIds=8&basemapItemId=86de95d4e0244cb... 4/11](https://survey123.arcgis.com/surveys/78c7b7dc74e437b81db9fb5889a76511/data?extent=-87.9054,30.5061,-87.9013,30.5074&mapTableRatio=72.28&objectIds=8&basemapItemId=86de95d4e0244cb...)

**Figure 31 Outfall assessment sheet generated from Survey 1 2 3 app**

11/16/2020 Stormwater Pond Inspection

Rip Rap Filter Berm Maintenance?  
**Yes**

Outfall Maintenance?  
**Yes**

Outfall Channel Inspected?  
**Yes**

Outfall Channel Maintenance?  
**Yes**

Rip Rap at End of Outfall Pipe Inspected?  
**Yes**

Rip Rap at End of Outfall Pipe Maintenance?  
**Yes**

Inspector Comments:

Comment 1:  
**Ripp rapp seems to be displaced..**

Comment 2:  
**Trash on banks,**

[https://survey123.arcgis.com/surveys/78c7b7dc74e437b81db9fb5889a7651/data?extent=-87.9054,30.5061,-87.9013,30.5074&mapTableRatio=72.28&objectIds=8&basemapItemid=86de95d4e0244cb... 5/11](https://survey123.arcgis.com/surveys/78c7b7dc74e437b81db9fb5889a7651/data?extent=-87.9054,30.5061,-87.9013,30.5074&mapTableRatio=72.28&objectIds=8&basemapItemid=86de95d4e0244cb...)

11/16/2020 Stormwater Pond Inspection

Overall Facility Condition:  
**Unacceptable**

Maintenance Actions Needed

Classification:  
**Routine**

Next Routine Inspection (Approximately):  
**Nov 16, 2024**

Inspectors

Inspector Name:  


Inspector Name:  


[https://survey123.arcgis.com/surveys/78c7b7dc74e437b81db9fb5889a7651/data?extent=-87.9054,30.5061,-87.9013,30.5074&mapTableRatio=72.28&objectIds=8&basemapItemid=86de95d4e0244cb... 6/11](https://survey123.arcgis.com/surveys/78c7b7dc74e437b81db9fb5889a7651/data?extent=-87.9054,30.5061,-87.9013,30.5074&mapTableRatio=72.28&objectIds=8&basemapItemid=86de95d4e0244cb...)

**Figure 32 Outfall assessment sheet generated from Survey 1 2 3 app**

11/16/2020 Stormwater Pond Inspection

Location  
Lat: 30.5069 Lon: -87.90319





Photo 1:



<https://survey123.arcgis.com/surveys/78c7b7dc74e437b81db9fb5889a7651/data?extent=-87.9054,30.5061,-87.9013,30.5074&mapTableRatio=72.28&objectIds=8&basemapItemid=86de95d4e0244cb...> 7/11

11/16/2020 Stormwater Pond Inspection

Photo:





photo-20201116-161722.jpg

Description:  
**Diagonal from rip rap**

Photo 2:




<https://survey123.arcgis.com/surveys/78c7b7dc74e437b81db9fb5889a7651/data?extent=-87.9054,30.5061,-87.9013,30.5074&mapTableRatio=72.28&objectIds=8&basemapItemid=86de95d4e0244cb...> 8/11

**Figure 33 Outfall assessment sheet generated from Survey 1 2 3 app**

11/16/2020 Stormwater Pond Inspection

Photo:



field\_67-20201116-161950.jpg


Description:  
**Brush needs to be cleared.**

Photo 3:

<https://survey123.arcgis.com/surveys/78c7fb7dc74e437b81db9fb5889a7651/data?extent=-87.9054,30.5061,-87.9013,30.5074&mapTableRatio=72.28&objectIds=8&basemapItemId=86de95d4e0244cb...> 9/11

11/16/2020 Stormwater Pond Inspection

Photo:



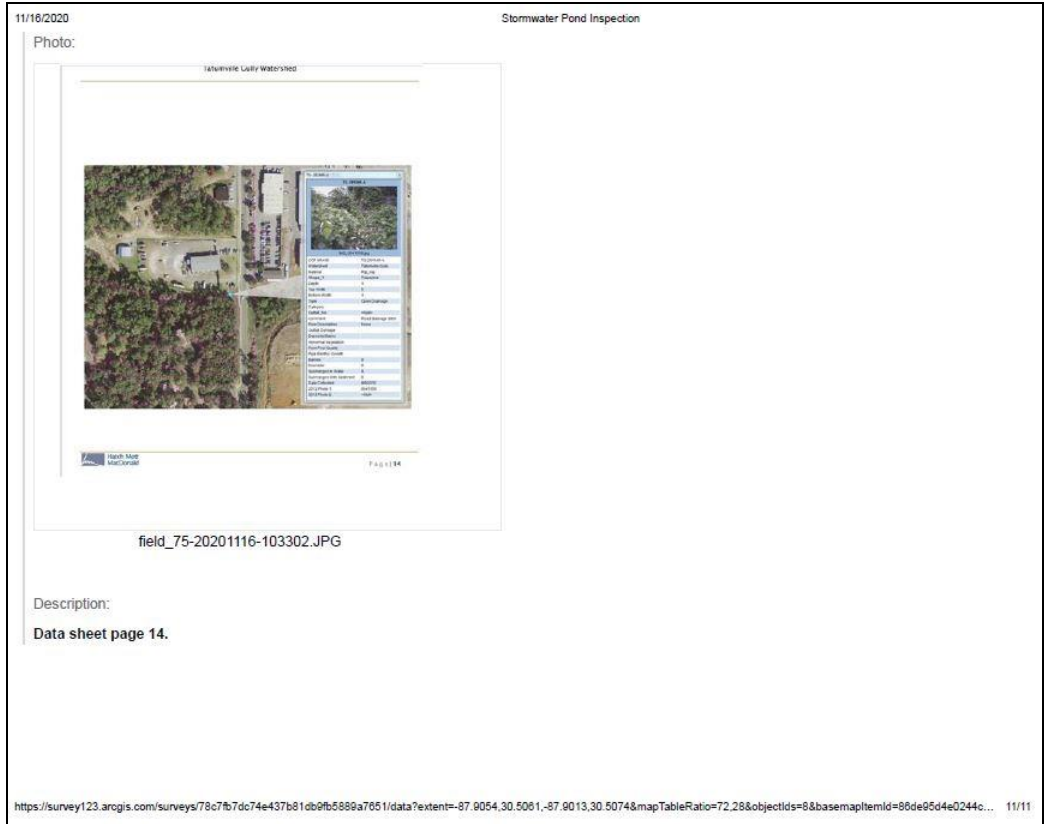
field\_71-20201116-162250.jpg

Description:  
**Brush and trash.**

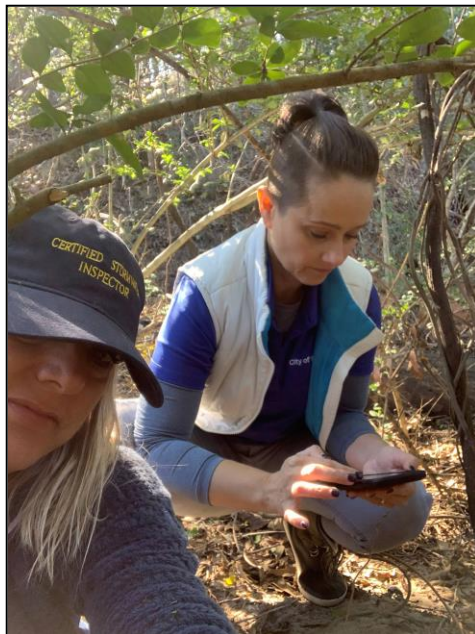
Photo 4:

<https://survey123.arcgis.com/surveys/78c7fb7dc74e437b81db9fb5889a7651/data?extent=-87.9054,30.5061,-87.9013,30.5074&mapTableRatio=72.28&objectIds=8&basemapItemId=86de95d4e0244cb...> 10/11

Figure 34 Outfall assessment sheet generated from Survey 1 2 3 app



**Figure 35 Outfall assessment sheet generated from Survey 1 2 3 app**



**Figure 36 Planning and Zoning staff collecting outfall assessment data with Survey 1 2 3 app on a Tatumville Gully outfall, November 2020**

**5.0 MINIMUM CONTROL REQUIREMENT #3:  
CONSTRUCTION SITE STORM WATER RUNOFF CONTROL**

- **Requirements:** Develop, implement, and enforce a program to reduce pollutants in storm water runoff from qualifying construction activities. The program shall include specific procedures for construction site plan (including Erosion and Sediment Control) review and approval; Erosion and Sediment Control ordinances with sanctions to ensure compliance; training program (including schedule) for MS4 site inspection staff in the identification of appropriate construction best management practices; procedures for periodic inspection of qualifying construction sites, including priority construction sites (those draining to Weeks Bay) at a minimum frequency of once per month for the priority construction sites; procedures outlined in the SWMPP to notify ADEM of non-compliant construction sites, including those without NPDES permits; procedures for site plan reviews outlined in the SWMPP; copies or links to regulatory ordinances; documentation of all inspections, complaints and enforcement actions taken; and a list of all active construction sites in the MS4 area. More details on these requirements can be found in the general permit.
  
- **Responsible Persons:** Planning and Zoning Department; Building Department; Public Works Department; Water and Sewer Director
  
- **Rationale Statement:** The City of Fairhope has a Construction Site Storm Water Runoff Control program to control erosion and sedimentation. This program is applicable to all construction and land disturbance sites and is not limited to development activities over an acre. This program includes project review, BMP inspections and enforcement of construction related ordinances for environmental protection. City employees (i.e. utility workers) are held to the same standards as property owners, contractors and developers. The Planning and Zoning Department and the Building Department have QCI (Qualified Credentialed Inspector) trained staff to review development applications and conduct BMP and construction inspections. The City of Fairhope has a total of (6) QCI certified employees in the Planning and Zoning Department and (5) Building Inspectors in the Building Department as of December 1, 2020. A Right of Way Inspector was hired in 2020 and he will be QCI certified in 2021. Crew leaders and city staff in each department are offered an overview of the Construction Site Storm Water Runoff Control program (including storm water standards at local and state levels) through a workshop held annually (Erosion and Sediment Control / BMP Workshop) by the City of Fairhope Planning and Zoning Department, Building Dept. and the Public Works Department. The City of Fairhope has a written Standard Operating Procedure (SOP) for non-compliant construction sites.



In October 2017, the City of Fairhope amended the existing Erosion and Sediment Control Ordinance (#1398) to include (#1603):

1. Requirements for stabilization of silviculture (forestry) activities
2. Third party review clarification (paid for by applicant)
3. Restrictions on clearing of vegetation: may not exceed more than 30' past the footprint of the proposed structure for single family; 50' for all others; 40' past curb and gutter for right of way projects and no more than the designed width of any drainage or utility easement that contains drainage conveyances and building utilities.
4. Slopes greater than 3:1 or adjacent to critical areas will be subject to additional requirements as determined by the City of Fairhope and/or the third-party consultant
5. Multiple buildings require individual erosion and sediment control (BMP) plans
6. Development sites (such as multi-occupancy / apartment projects) require a paved or fully stabilized road prior to building construction.
7. Open channels may receive rip rap or gabion stone stabilization materials if specified by a professional engineer.
8. Applicants must provide copies of QCI or other inspection reports to the city, upon request by the City.

➤ **BMPs / Mechanisms** used for Construction Site Storm Water Runoff Control

1. Design Review
2. BMP Inspections
3. Code Enforcement / Procedures for non-compliant sites
4. City ordinances
5. Educational material available in the Building Dept.



**Figure 37 Example of multi-occupancy project underway in 2019. The contractor installed the asphalt binder in advance of vertical construction to meet the new requirement in the City of Fairhope Erosion and Sediment Control Ordinance.**

## CONSTRUCTION SITE STORM WATER RUNOFF CONTROL, CONT.

**BMP # 1: Design Review:** The City of Fairhope Planning and Zoning Department design review (and pre-construction meeting) process includes:

1. Informal review with applicant (encouraged but not required)
2. Development Review with Staff (internal)
3. Preliminary Plats for Subdivision
4. Pre-construction meeting – with engineer of record
5. Final Plats for Subdivision
6. Zoning Applications (if applicable)
7. Site Plan Review (considered by Planning Commission), if the development meets the following qualifications:
  - Has a gross floor area of 10,000sf or greater; or,
  - More that 30% of the lot (excluding the building) is impervious; or
  - All applications for zoning map amendments to any of the Village Districts
  - All mixed-use projects electing to build to 35 feet high with 33% residential.

All preliminary and final subdivision submittals require a public hearing through the Planning Commission. Notification requirements are as required by State law, the City of Fairhope Subdivision Regulations, and also via Subdivision POA contact list (email). The City of Fairhope Building Department coordinates plan reviews of residential and commercial submittals for permit issuance.

### **General procedure of submittal review:**

Staff conducts a review of all submittals and applicants are encouraged to meet with staff (City Planner or Planning Technician) before submission for development (informal review with applicant). For subdivision applications, storm water drainage is reviewed for submittal requirements in the City of Fairhope Subdivision Regulations in the Preliminary Plat review. A design review meeting is held and attended by the various City of Fairhope Superintendents or Department representatives. The Public Works Department, Planning and Zoning Department and Building Department are the most instrumental representatives for Storm Water reviews. Although the City of Fairhope now has (2) two Professional Engineers on staff, the applicant's engineer is the person ultimately responsible for drainage compliance with the City's regulations. The Code Enforcement Officer reviews the Erosion Control Plan of submitted plans to ensure minimum BMP standards are met. The comments generated during the design review meeting are compiled in a review letter which is sent to the applicant. The applicant provides a response letter. The City of Fairhope staff prepares a staff report for the Planning Commission members prior to the Planning Commission meeting.

Pre-Construction meetings are held with the applicant after Preliminary Plat approval and before submittal of a Final Plat application. During the pre-construction meetings, City staff meets with the applicant's engineer of record to address specific issues such as wetland buffer protection, on-site erosion controls, and drainage concerns.

## CONSTRUCTION SITE STORM WATER RUNOFF CONTROL

The Final Plat approval phase is when the final inspection of installed subdivision infrastructure takes place and a final punch list is generated. A second design review and a site inspection take place and any deficient items are addressed during this inspection process. The site inspection is conducted by the same Department Supervisors/Representatives who perform the preliminary design review.

The City of Fairhope requires a 2-year maintenance bond for the infrastructure to be accepted by the City.

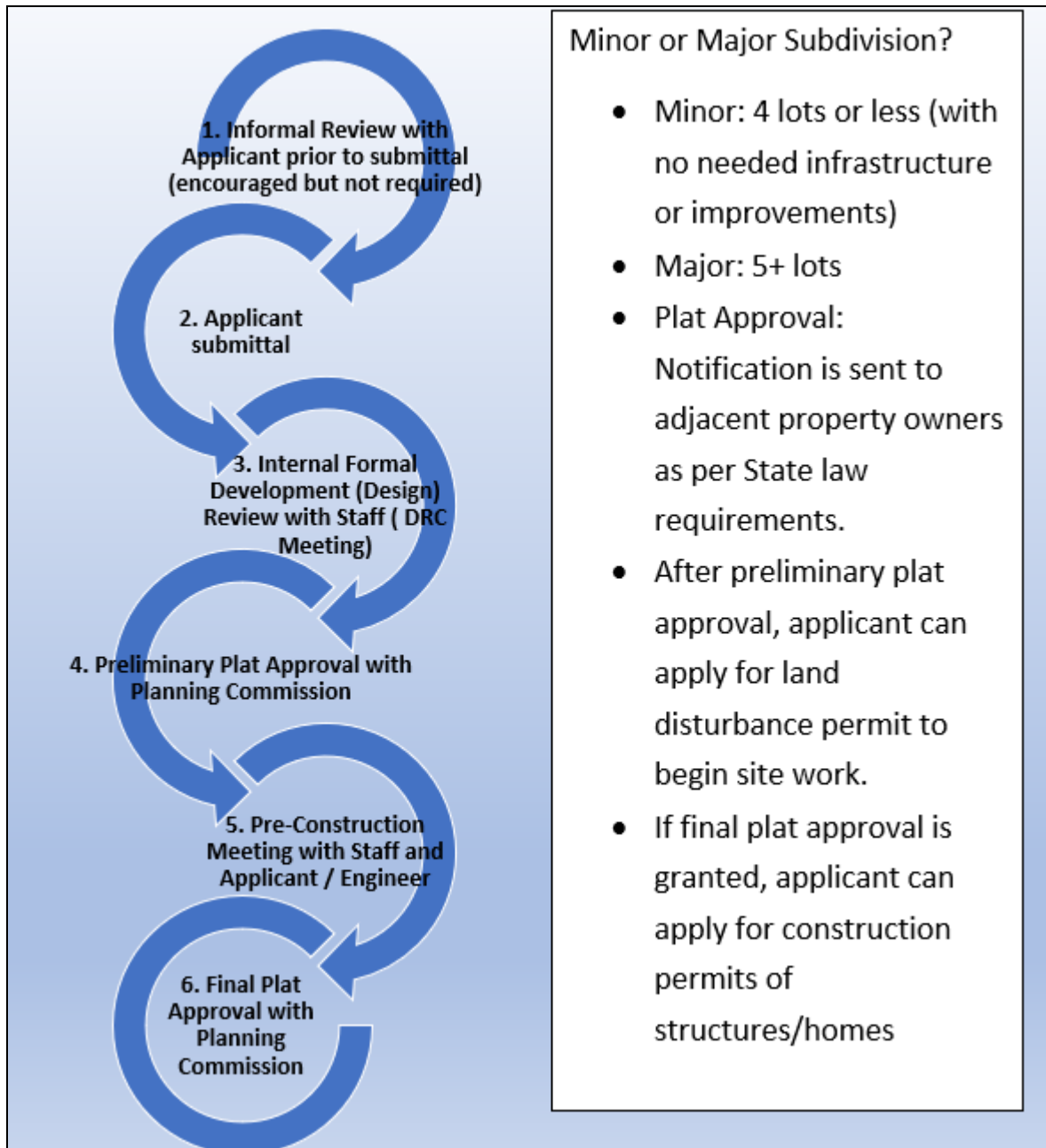


Figure 38 City of Fairhope Review Process for Subdivisions

## CONSTRUCTION SITE STORM WATER RUNOFF CONTROL

**BMP # 2: BMP Inspections**-City of Fairhope Planning and Zoning Department has two full time Code Enforcement Officers to perform code enforcement inspections, including BMP inspections. The Code Enforcement Officers track BMP inspections and non-compliant sites (including corrective actions taken) through inspections in Munis software. The initial BMP inspection is performed prior to other construction inspections. Construction sites with high impact potential and subdivisions under construction are inspected frequently. Construction sites with high impact potential include multi-family, non-residential, those near critical areas or those disturbing more than one acre. Other single-family home construction sites are inspected initially and with follow up inspections to ensure continued compliance. Construction sites within Priority Construction Areas (those draining to Weeks Bay and Fly Creek) are inspected at least monthly, as per ADEM's requirement for the Priority Construction Area. Map of "priority construction area" is available in the Planning and Zoning Department Code Enforcement Office. The Building Inspectors assist with BMP inspections by ensuring compliance with each construction inspection Essentially, a BMP inspection is performed with each construction inspection. The Building Inspectors perform the closure BMP inspection, as part of the final inspection on the site. A Certificate of occupancy is not issued unless site is stable and compliant.



BEFORE

**Figure 39 BMP Inspection: Notice of violation issued for BMP deficiencies (10/19)**



AFTER

**Figure 40 BMP Follow up inspection: deficiencies resolved (10/19)**

## CONSTRUCTION SITE STORM WATER RUNOFF CONTROL, CONT.

BMP inspections include:

- a. Initial
- b. Phasing (if applicable)
- c. Closure (certificate of occupancy is not issued unless site is stable)
- d. Additionally, monthly inspections are conducted and documented by the Planning and Zoning Department Code Enforcement Officer for “priority construction sites”, or those draining to ONRW Weeks Bay.

Responsible Person(s): Planning and Zoning Department (Code Enforcement Officer)

**BMP #3: Code Enforcement / Non-compliant Sites:** The City of Fairhope enforces the Erosion and Sediment Control ordinance (#1398 and #1603) through Notice of Violations, Stop Work Orders, suspended construction inspections, City street sweeper charges and/or municipal offense tickets. These efforts minimize sedimentation and erosion to the maximum extent practicable. Water quality impacts are referred to state and/or federal authorities as well. A written Standard Operating Procedure (SOP) for non-compliant construction sites was developed in 2014 and is updated as needed:

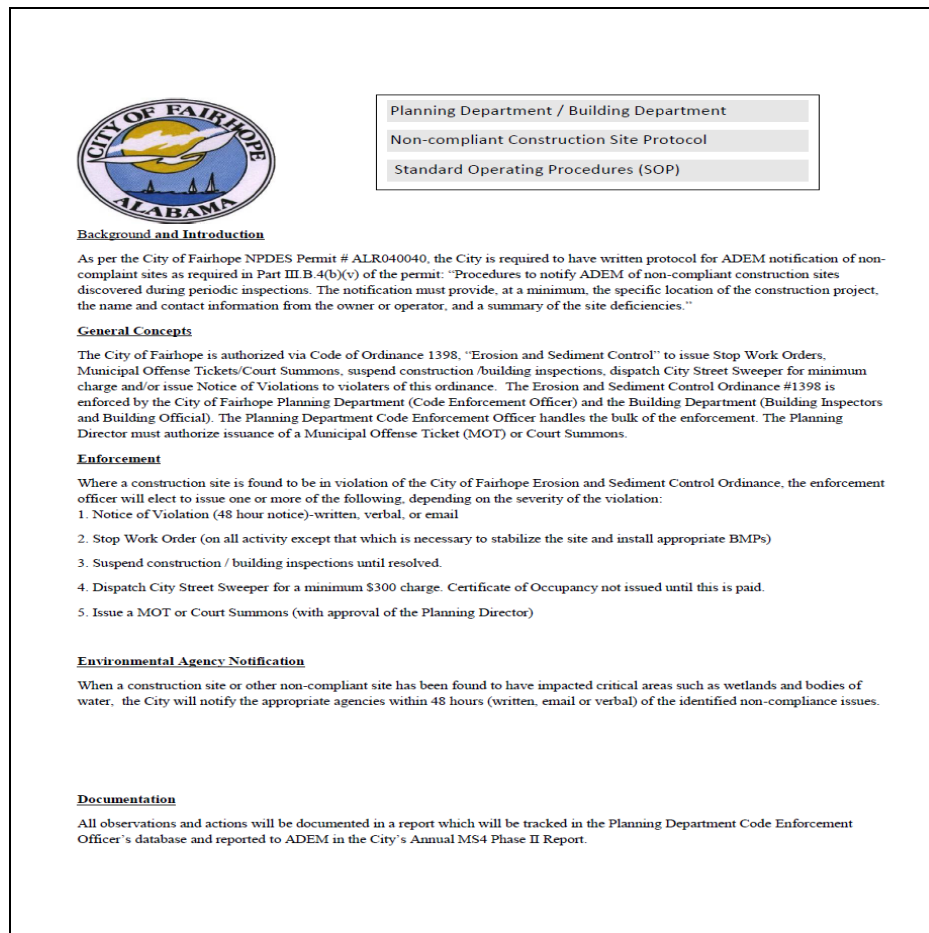


Figure 41 SOP for non-compliant construction sites

CONSTRUCTION SITE STORM WATER RUNOFF CONTROL, CONT.

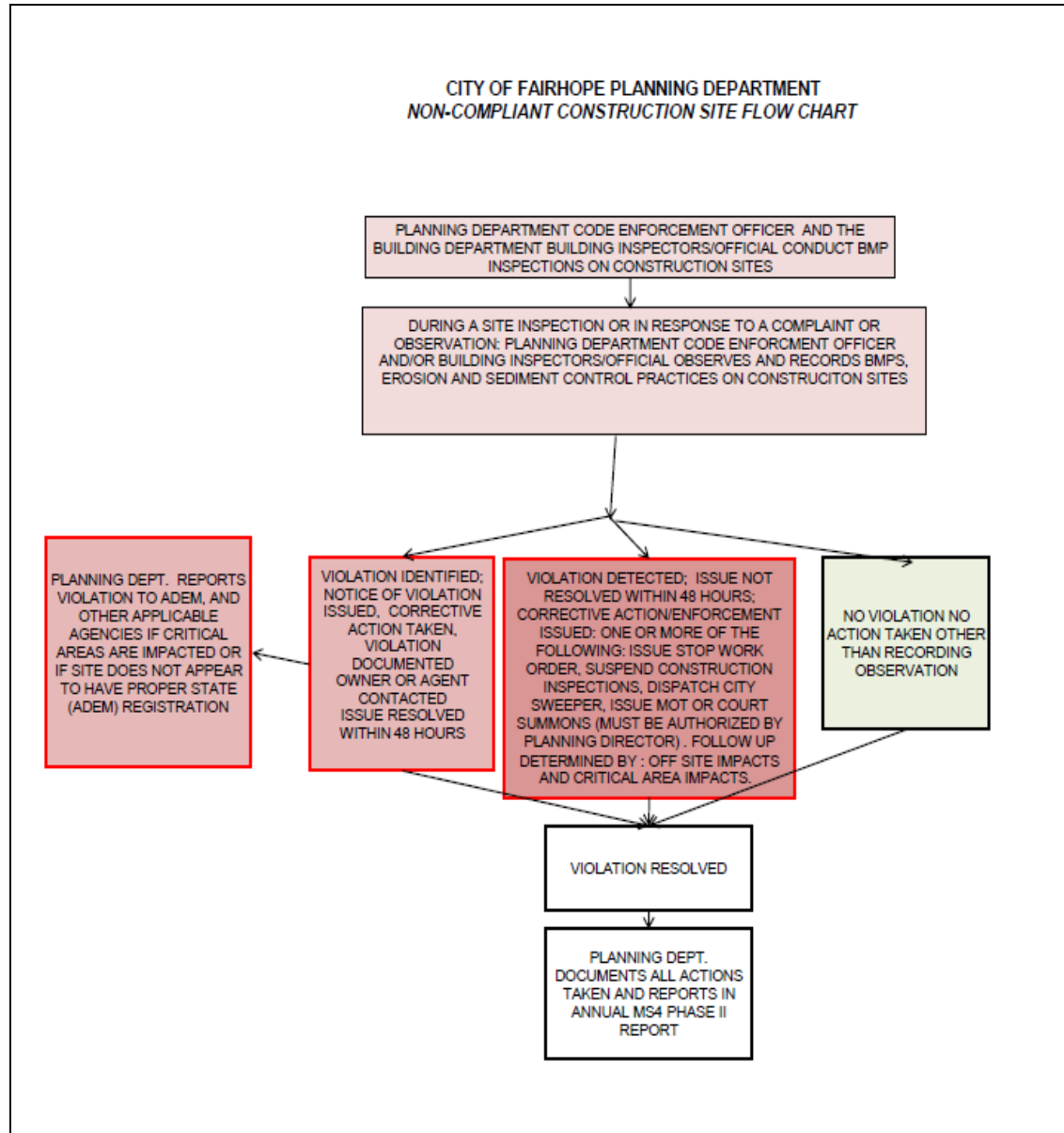


Figure 42 SOP Flow Chart for non-compliant construction sites

## CONSTRUCTION SITE STORM WATER RUNOFF CONTROL, CONT

Procedures for non-compliant sites:

1. Notice of Violation (written or verbal)
2. Suspended Construction Inspections
3. Stop Work Orders
4. Authorize Street Sweeper at \$300 minimum charge to violator
5. Municipal Offense Ticket
6. ADEM notification if water quality impact has occurred

Responsible Person(s) for BMP inspections / Code Enforcement: Planning and Zoning Department (Code Enforcement); Building Department (Building Official)

**BMP # 4: Municipal ordinances** utilized for erosion, sediment and waste control on construction sites:

1. Erosion and Sediment Control (#1398 and #1603), outline procedures for BMP requirements (including inspections), and corrective action.
2. Red Soil Ordinance (#1423) prohibits red soil and clay in or near critical areas
3. Construction Site Waste (#958) requires construction sites to contain waste

Responsible Person(s) for municipal ordinances: Planning and Zoning Department; Building Department

**BMP # 5: Educational Material**, brochures/booklets available to contractors/developers:

1. *Field Guide for Erosion and Sediment Control on Construction Sites in Alabama* by Alabama Soil and Water Conservation Committee Partners
2. *BMP Minimum Requirements*, City of Fairhope handout
3. *Storm Water Management*, by EcoSolutions



**Figure 43 BMP minimum requirements include a silt fence and a construction entrance for residential construction.**

## CONSTRUCTION SITE STORM WATER RUNOFF CONTROL, CONT

### ➤ Measurable Goals:

#### One Year Goal:

1. QCI Re-certification for Planning and Zoning Code Enforcement Officers (2)  
**Responsible Department:** Planning and Zoning Department  
**Goal:** Recertify QCI Re-certification (*Code Enforcement Officer*)  
**Due:** December 2021
2. QCI Re-certification for Building Department (5 Building Inspectors)  
**Responsible Department:** Building Department  
**Goal:** Recertify (5) Building Inspectors with QCI training  
**Due:** December 2021
3. QCI Initial Certification of new Right of Way Inspector, Building Dept.  
**Responsible Department:** Building Dept.  
**Due:** December 2021

### Why become a Qualified Credentialed Inspector?

- Better understand the ADEM general NPDES permit program and local programs to help achieve & maintain compliance.
- Understand the importance of the Construction Best Management Practices plan & recognize proper BMP installations.
- Perform *self-inspections*, recognize BMP problems and coordinate timely maintenance as required by the general permit.
- Be able to log & keep records & improve communications with the operator - reduce compliance liability.
- Avoid or reduce risk of successful citizen lawsuits.
- Recognize the need to address environmental issues *early* in the project planning & throughout the construction period.

Figure 44 Information on the Qualified Credentialed Inspector Program from the Home Builders Association of Alabama website



#### 6.0 MINIMUM CONTROL MEASURE # 4: POST CONSTRUCTION STORM WATER MANAGEMENT

- **Requirement:** Develop/revise, implement and enforce a program to address storm water run-off from qualifying new development and redevelopment projects, to the maximum extent practicable. This program shall ensure that controls are in place to prevent or minimize water quality impacts. The City of Fairhope shall have procedures, outlined in the SWMPP, for site plan review and the approval process when changes to post-construction controls are required; outline procedures in the SWMPP to demonstrate and document that post-construction storm water measures have been installed per design specifications, which includes enforceable procedures for bringing non-compliant projects into compliance. The City of Fairhope must develop and implement strategies which may include a combination of structural and/or non-structural BMPs designed to ensure, to the maximum extent practicable, that the volume and velocity of pre-construction storm water run-off is not significantly exceeded, using a design rainfall event with an intensity up to that of a 2 year-24 hour storm event for the basis; develop and use ordinances or other regulatory mechanisms to address post-construction run-off from qualifying new development/redevelopment projects; require long-term operation and maintenance of BMPs; perform or require the performance of post-construction inspections, at a minimum once per year, to confirm post-construction BMPs are functioning as designed. The City of Fairhope shall include an inspection schedule, to include inspection frequency, within the SWMPP; maintain or require the developer/owner/operator to keep records of post construction inspections, maintenance activities and make them available to ADEM upon request and require corrective actions to poorly functioning or inadequately maintained post-construction BMPs; review and evaluate policies and ordinances related to building codes, or other local regulations, with a goal of identifying regulatory and policy impediments to the install of green infrastructure and low impact development techniques. More details on these requirements can be found in the general permit.



**Figure 45 A sample subdivision undergoing site work in Fairhope's largest watershed, Cowpen Creek**

## POST CONSTRUCTION STORM WATER MANAGEMENT, CONT.

- **Rationale Statement:** The Fairhope Zoning Board of Adjustments and Appeals also meet monthly if there are cases to be heard. The Planning Commission and the Board of Adjustments and Appeals are committees with appointments by the Mayor and Council, and work with the Planning and Zoning and the Building Department with design and review procedures, as set forth in the Zoning Ordinance and Subdivision Regulations. The Planning Commission reviews amendments to the Zoning Ordinance and the Subdivision Regulations.

The Subdivision Regulations “Storm Water Standards” (Article V Section F) include a 5-year stormwater inspection report requirement and a long-term stormwater plan (Operation and Maintenance requirement). An O&M Plan is submitted with final subdivision plat. The Subdivision Regulations Low Impact Development (LID) requirements include “as many LID techniques as practical and appropriate for the development”. Plans and calculations shall show the efficacy of each LID technique and include a quantitative analysis of their performance. Plans shall clearly identify each LID technique on a Grading and Drainage Plan with appropriate details and cross references to the drainage calculations.”

The Planning and Zoning Department Code Enforcement Officers address runoff issues from sites within the City of Fairhope (including post construction residential, commercial and right of way areas). These issues are tracked via a monthly Notice of Violation log. This log tracks complaints, follow up, and corrective action taken. The Public Works Department oversees maintenance of city-owned storm water infrastructure.

- **Responsible Persons:** Planning and Zoning Department; Building Department; Public Works Department; Water and Sewer Director



**Figure 46 Level spreader installation (LID feature) at apartment complex project**

## POST CONSTRUCTION STORM WATER MANAGEMENT, CONT.

- **BMPs / Mechanisms** for Post Construction Storm Water Management
  1. Subdivision Regulations
    - a. Storm Water Standards (Article V, Section F)
    - b. Stormwater Facility Inspection Requirement (Article V, Section F)
    - c. Flood Control Structures (definition)
    - d. LID standards (Article V, Section F)
  2. Zoning Ordinance
    - a. Stormwater Management (Article IV, Section F)
    - b. Pervious Paving (Article IV, Section F)
    - c. Low Impact Development Techniques (Article IV, Section F-Ordinance 1550)
  3. Pervious Paving in City projects, where applicable (Police Department, City parks, Library, etc.)
  4. Storm Water Projects by the City
  5. Creek / Shoreline Assessment by kayak
  6. Standard Courtesy Letter for Property Owners of non-compliant storm water facilities
  7. Annual Email to POA/HOA groups: “HOA Stormwater Guide”



**Figure 47 Kayak / creek assessment recently included an assessment of Fly Creek and an inventory of fallen trees, Sept. 2020**

## POST CONSTRUCTION STORM WATER MANAGEMENT, CONT.

**BMP # 1: Subdivision Regulations:** available on-line for the public to view. Construction, development and re-development standards for storm water are listed here.

**Responsible Department:** Planning and Zoning Manager

- a. **Stormwater Standards:**  
<https://www.fairhopeal.gov/home/showdocument?id=20823>
- b. **Storm Water Facility Inspection Requirement:** As per the Operation and Maintenance (O & M) plan within the Subdivision Regulations, the City of Fairhope Planning and Zoning Department has specific regulations for property owners regarding the five-year storm water inspection requirement for respective storm water facilities. This requirement is for subdivision storm water facilities, installed, effective in 2007. For more information, refer to the City of Fairhope Subdivision Regulations, Article V, Section F, 3. (a) (3).

**Responsible Department:** Planning and Zoning Manager

- c. **Flood Control Structures** definition: *“Those physical structural works for which funds have been authorized, appropriated and expended and which have been constructed specifically to modify flooding in order to reduce the extent of areas within the city subject to a “special flood hazard” and water depths associated with flooding. Flood control structures typically include: hurricane tidal barriers, dam, reservoirs, levees or dikes. Typically flood control structures are located perpendicular to a stream and within the stream buffer.”*

- d. **LID Standards: Article V, Section F revised in 2018**

### Fairhope Sub Regs:

*Required Use of Low Impact Development (LID) Techniques - a. The use of the LID techniques is required and is to be determined from an entire site development perspective by the engineer of record for the project. The design and integration of LID techniques shall promote the health, safety, and general welfare of the community and shall be designed to work in a complimentary fashion with the drainage plan for the proposed development. The LID techniques are required within the municipal limits of the City of Fairhope and the planning jurisdiction of the City of Fairhope based on the rain events experienced in the area, geology, slopes, and other natural features. The design engineer is encouraged to submit additional LID based techniques to be utilized in the proposed development. b. The use of LID techniques is required in any and all proposed developments where the stormwater regulations apply. The design engineer shall rely on verifiable professional engineering judgment on which LID techniques to deploy in each proposed development based on the particular characteristics of the subject property. The intent of the requirements for the use of LID techniques is that the development shall implement as many LID techniques as practical and appropriate for the development. Plans and calculations shall show the efficacy of each LID technique and include a quantitative analysis of their performance. Plans shall clearly identify each LID technique on a grading and drainage plan with appropriate details and cross-references to the drainage calculations. c. If a project, due to the natural characteristics of the property, cannot successfully implement any of the LID techniques the applicant may submit a waiver request for Article V Section F. Planning Design*

*Standards Storm Water Standards. The waiver request shall be submitted at the time of the application and provide verifiable engineering documentation that LID techniques cannot be used. The City shall have the right, but not the obligation, to engage such third party engineers, consultants and other professionals as necessary and appropriate to advise the City as to whether a particular application complies with and is otherwise in concert with this subsection 10 (a “Third Party Professional”). In the event the City engages a Third Party Professional in connection with a particular application, the City will forward all application materials to the Third Party Professional along with a request for a cost estimate from the Third Party Professional for his/her role in the review of such application. Upon presentation by the Third Party Professional of a cost estimate to the City, the City shall provide same to the applicant, and the applicant shall deposit with the City a cash sum equal in amount to the cost estimate of the Third Party Professional (the “Cash Deposit”). Upon completion of all work by the Third Party Professional relative to such application and payment by the City of all fees and expenses of the Third Party Professional from the Cash Deposit, if any portion of the Cash Deposit remains, the City shall refund it to the applicant. If the Cash Deposit is insufficient to pay the fees and costs of the Third Party Professional, the applicant shall immediately remit to the City such funds as are necessary to make up any shortfall. d. The Third Party Professional shall submit a finding report to the City Planning Department. The City Planning Department shall forward a copy of the finding to the applicant or the applicant’s agent. The City Planning Department shall include, as part of the application materials to the Planning Commission a recommendation regarding the waiver. e. The Planning Commission shall consider the waiver, the applicant’s documentation, and Third Part Professional finding and City Planning Department recommendation and make a final determination as to the waiver request. f. The following LID techniques are available for use by applicants given the particular circumstances and characteristics of the proposed subdivision: (1.) Wet Basins: The City finds the potential benefits of wet basins are, among other items, allowing sedimentation to fall out of stormwater, attenuating flows, assisting in evapotranspiration, and improving the stormwater quality. Special design considerations are: groundwater elevations, large surface areas are encouraged, special attention should be given in pervious soil, surface area of the basin should take into account nutrient loading from lawns for example in order to treat and improve stormwater quality to the maximum extent possible, ensuring that an adequate base flow is provided to maintain water levels, they are not recommended to be constructed in an inline facility, utilize low slopes, the use of forbays are recommended, upstream and downstream areas shall be considered in the design in accordance with Fairhope standards. Recommended characteristics are: The approach slopes should be 4:1 or less around the perimeter, side slopes 3:1 or less (below the water level, beyond the safety bench), safety bench just below water elevation (4’ wide, 6”-12” deep), energy is dissipated prior to entering the basin, can be excavated below the ground surface. (2.) Rain Gardens: The City finds the potential benefits of rain gardens are, among other items, small scale flow attenuation, infiltration, limited evapotranspiration, allowing sediments to be trapped, and water quality treatment. Special design considerations are: Typically smaller areas and drainage areas are used for rain garden design, special attention should be given in pervious soils, recommended for use in hydrologic soil groups A and B, not recommended in high swell soils. Recommended characteristics are: Small scale and frequent use in drainage areas, the choice of landscaping materials, soil mix, and other characteristics are crucial to the success of a rain garden. Rain gardens can be highly visible and utilized as a visual amenity in a proposed development. (3.) Permeable Pavement Systems: The City finds the potential benefits of*

permeable pavement systems are, among other items, flow attenuation, infiltration, and filtration of stormwater. There are many products and strategies that can be utilized and the City is open to the use of varied products in accordance with manufacture recommendations. Consultation with the city prior to design of the product to be utilized is suggested. Special design considerations are: Use in areas with hydrologic soil groups A and B, special attention should be given in pervious conditions, not recommended in areas with high swell soils, ground water tables should not impact the ability of water to infiltrate, the technique works best in low slopes.

(4.) Sand Filter: The City finds that the potential benefits of sand filters are, among other items, flow attenuation, infiltration, reducing sedimentation, and providing filtration of storm water. Special design considerations are: Best used in small drainage areas, special attention should be given in pervious soils, recommended use in areas with soils with good permeability in hydrological soil groups A and B, not recommended in high swell soils.

(5.) Grass Swales: The City finds that the potential benefits of grass swales are, among other items, in straining stormwater, providing limited quality treatments, while providing some moderate flow attenuation. Special design considerations are: Typically work best in smaller drainage areas where volumes are reduced, special consideration should be given in pervious soils, not recommended with high swell soils, should have low slopes, adjacent areas and layout should be considered in the design. Suggested characteristics where topography, soils, and slope permit vegetated open channels and spaces should be considered as a significant or a primary means of stormwater conveyance.

(6.) Grass Buffers: The City finds that the potential benefits of grass buffers are, among other items, in straining stormwater, providing limited quality treatments, while providing some moderate flow attenuation. Special design considerations are: Typically work best in smaller drainage areas where volumes are reduced, special consideration should be given in pervious soils, not recommended with high swell soils, should have low slopes, adjacent areas and layout should be considered in the design. Suggested characteristics where topography, soils, and slope permit vegetated open channels and spaces should be considered as a significant or a primary means of stormwater conveyance.

(7.) Constructed wetland channels or wetlands: The City finds that the potential benefits of constructed wetland channels or wetlands are, among other items, flow attenuation, buffering of flooding events, evapotranspiration, sedimentation, and treatment of stormwater quality. Special design considerations are: Not recommended in high swell soils, low slope, forebay is recommended, primary benefit of pollutant removal, not volume reduction, adjacent areas should be considered in the design.

(8.) Step Pool Stormwater Conveyance Structures: The City finds that a step pool stormwater conveyance structure may attenuate stormwater flows, provides evapotranspiration, reduce sediment transport, and water quality treatment. Special design considerations are: Not recommended in high swell soils. Adjacent areas should be taken into consideration in order to ensure long term viability of step pool structures and adjacent erosion.

(9.) In-line stormwater storage: The City finds that in-line storage may provide for attenuation and limits sedimentation. Special design considerations are: Designed to be self-cleaning where possible or suitable clean out access is provided and designed into the system, designed to surcharge non-sensitive areas with no flooding in parking lots, structures, or other typically occupied spaces.

(10.) Site design for habitat, wetland, and water body conservation: The City finds that site design that incorporates the natural features of the property can help to minimize erosion and reduce stress on natural water conveyance and attenuation systems by preserving a natural vegetated state of native plants, water courses, and flood prone areas. Suggested characteristics are: The technique may be used in conjunction with the City's planned unit development or village

*subdivision processes to propose alternative street layouts and design so that impervious areas and other improvements are sited with due regard to the natural elements of the property. Special design considerations: To consider adjacent areas in the design since important natural features that utilize this LID technique often extends past property lines or the phases of proposed development. (11.)Restoration of Habitat or Wetlands and Water Bodies: The city finds that the restoration of habitat or wetland and water bodies can be productive to improve the environment by minimizing erosion and reducing stress on natural water conveyance and attenuation systems by preserving a natural vegetated state of native plants, water courses, and flood prone areas. Suggested characteristics are: This technique may be used in conjunction with the City's planned unit development or village subdivision processes to propose alternative street layouts and design so that impervious areas and other improvements are sited with due regard to the natural elements of the property. Use only native plants in the development process and take special consideration to restore portions of the site to predevelopment native ecological communities, water bodies or wetlands with more than 10% of the development footprint. Special design considerations: To consider adjacent areas in the design since important natural features that utilize this LID technique often extend past property lines or the phases of proposed development (12.)Greenways: The City finds that greenways provide for beneficial use of LID for potentially active and passive recreation opportunities and wildlife corridors. This technique allows for the creative integration into a development proposal that is frequently linked with other natural or recreation systems that extend past the property lines of the proposed development. Suggested characteristics: Typically greenways are easier to integrate into a development proposal on larger acreages. They are frequently utilized as linear parks and often include sensitive wetland areas, steep slopes, gullies or other natural land forms, creeks, and unique wildlife habitat for protected species. (13.)Restoring Channel Morphology and Natural Function: The City finds that restoring channel morphology and natural function provides for flow attenuation, infiltration, and reduces sedimentation. Special considerations are: Typically works most effectively in larger development proposals where a substantial linear footage of channel can be restored. It is important to consider the upstream and downstream current and future characteristics so conversation of land use in accounted for in the design. (14.)Bio-Retention: The City finds that bio-retention provides for flow attenuation, infiltration, limited evapotranspiration, reduced sedimentation, and stormwater quality treatment. Suggested characteristics are: To be used as both a stormwater and aesthetic feature frequently throughout developments. Special attention should be given to plant and ground cover considerations given the volume and duration of the designed stormwater. Special design considerations are: Typically work best in small drainage areas with frequent use and distribution, special attention is required in pervious soils and should be used in areas with high permeable soils (hydrologic soils groups A and B), not recommended in high swell soils. (15.)Level Spreader: The City finds that level spreaders can be an effective tool to evenly distribute flows and return volumes and velocity to a predevelopment distribution pattern. There are limited stormwater straining and water quality improvements. Suggested characteristics are: Level spreaders are intended to work in a complimentary fashion with other LID techniques such as, but not limited to, sand filters and grass buffers. Special design considerations are: Typically level spreaders are used downstream of an outfall and have a low slope with stabilized and vegetated buffers both up and downstream. They typically are installed a suitable distance from the property line (30'-35' is suggested) so that flow energy is dissipated, and predevelopment sheet flow characteristics are generated. Special consideration should be given in areas with highly erodible soils. (16.)Additional*

*information regarding LID techniques is included in the document Planning For Stormwater, Developing a Low Impact Solution, a publication of the Alabama Cooperative Extension Service. This document is available for download from the Alabama Cooperative Extension Service website.*



**Figure 48 Example of a LID bio-swale stormwater facility in Fairhope subdivision**



## POST CONSTRUCTION STORM WATER MANAGEMENT, CONT.

**BMP # 2: Zoning Ordinance:** available on-line for the public to view. Construction, development and re-development standards for stormwater are listed here.

**Responsible Department:** Planning and Zoning Department (Director)

### a. Stormwater Management Standards:

**Fairhope Zoning Ordinance, Article IV, Section F:**

*Stormwater Management 1. Intent The intent of this section is to provide for stormwater management in site design. The primary management strategy should be infiltration of all runoff created by development through natural systems and constructed natural systems. Should infiltration not address stormwater management for the site adequately, retention and detention of run-off will be required. This section also seeks to incorporate any stormwater management system into the design of the site as a natural or aesthetic amenity. 2. General Requirements All site plans shall be designed with surface drainage provisions in accordance with the Fairhope Subdivision Regulations, construction, building, or grading permits, and any other City ordinance regarding the effects of stormwater. Developers shall take steps necessary to prevent run-off, which may have the potential for causing flood damage to neighboring property. The building inspector shall, in consultation with the city engineer, determine that reasonable provisions for properly handling surface drainage have been made in the applicant's design, and will report these findings for the Fairhope Planning Commission's consideration in acting on building applications. If reasonable provisions are not made in the applicant's design, the Fairhope Planning Commission shall make the remedies available to the applicant a condition of the approval, or deny the application. "Dry wells," biofilters, or other constructed infiltration systems may be required of sufficient capacity to receive up to four inches per hour rainfall on the paved area or areas required for off-street parking and loading. Rainfall intensity to be calculated on storm frequency determined by the commission and/or its consultants. 3. Design Standards Storm water detention shall be screened from direct view from all abutting properties by installation and maintenance of living plants at least 36 inches in height at time of planting, and achieve a height of not less than six feet in three years after planting. Outer slopes of detention ponds shall not be steeper than four feet horizontal to one-foot vertical. Where water depth and time of detention is sufficient to require safety fencing, such fencing shall be installed behind required screening, on the pond side. 4. Alternative Designs Standards of this ordinance and any standard of this ordinance that relates to the City of Fairhope Subdivision Regulations may be waived to provide for an alternative stormwater design system provided that: a. The alternative stormwater design provides for an infiltration system that incorporates at least 80% of the runoff from impervious surfaces into the groundwater on the site and results in an overall reduction in impacts on streams in the watershed. b. The alternative stormwater design addresses stormwater on an area-wide or watershed basis making stormwater management on individual lots within the site unnecessary. c. Natural elements on the site are incorporated into a natural storm drain infrastructure minimizing or eliminating the need for detention ponds and other*

*constructed storm drainage. Constructed elements of the natural drainage system shall be limited to artificial wetlands, bio-filters, and dry swales. To the extent that it does not damage the function of the natural drainage system, natural elements should serve additional community purposes such as trails or greenways, parks, or aesthetic screens. d. Any waiver of standard to accommodate the alternative stormwater design proposes an equal or better alternative for meeting the intent of the waived standard. e. The alternative stormwater design is accompanied by a plan produced by a registered engineer testifying to its accuracy and sustainability. f. The alternative stormwater design plan included provisions for long-term maintenance and operation of the alternative design, including easements, covenants, restrictions, and an acceptable legal entity to oversee long-term maintenance. g. The alternative stormwater design plan shall accompany a site plan for the entire development. The plan and any waivers to the standards of this ordinance shall be approved according to the procedures and standards for the site plan.*

b. **Pervious Paving:** For projects requiring more than 8 parking spaces, a 25% minimum pervious paving material requirement is required.

c. **LID Component:**

Compact Car Parking Requirement:

Compact car parking spaces shall be a minimum of 30% of the required parking spaces and no more than a maximum of 40% of the required parking spaces. Compact car spaces shall be grouped together to the greatest extent possible. Compact car spaces shall be designated by paint at the entrance of the parking stall.

Parking Dimension and Size:

- 1) Standard parking lot dimensions
- 2) Compact car parking dimensions

	<u>90°angle</u>	<u>60°angle</u>	<u>45°angle</u>
width	8'	8'	8'
depth	15'	16.8'	16.5'

Low Impact Development (LID) Parking Requirements

Landscaping is required for all parking lots. The interior parking lot landscaping requirements shall use LID techniques and be designed by an Alabama licensed Professional Engineer and an Alabama licensed Landscape Architect or designer. The following LID techniques shall be used in the interior of all parking lots containing 12 or more parking spaces. The LID parking requirement landscape plan will be reviewed in accordance with the Tree Ordinance. Any landscaping plan submitted in accordance with this subsection shall include technique 5 below and at least one of the other following techniques:

- 1) **First Flush Treatment:** The LID landscaping design shall be sized appropriately to treat the first one inch of runoff into the receiving parking lot LID area.

- 2) Bio-retention.
- 3) Rain Garden.
- 4) Vegetated Swale.
- 5) Permeable Pavement Systems: Permeable pavement systems are a required LID technique. 100% of parking provided over and above the minimum parking requirements shall be permeable pavement systems. Typical systems are brick pavers, pervious asphalt, and pervious concrete. Other systems may be approved if the design engineer provides adequate documentation that demonstrates the proposed technique is equally or more effective than the typical permeable systems listed. Approval of a proposed technique is at the sole discretion of the City during the permitting process.
- 6) Tree and Ground Cover Plantings: When trees are required in a parking lot by the Tree Ordinance they shall be included and integrated into the LID design. Species shall be as approved by the City Horticulturist and must be suggested by the landscape architect or designer. There shall be no bare ground exposed and all ground cover proposed shall be integral to the success of LID techniques. All ground cover shall be as approved by the City Horticulturist and must be suggested by the landscape architect or designer.

Bioretention: This technique removes pollutants in stormwater runoff through adsorption, filtration, sedimentation, volatilization, ion exchange, and biological decomposition. A Bioretention Cell (BRC) is a depression in the landscape that captures and stores runoff for a short time, while providing habitat for native vegetation that is both flood and drought tolerant. BRCs are stormwater control measures (SCMs) that are similar to the homeowner practice, of installing rain gardens, with the exception that BRCs have an underlying specialized soil media and are designed to meet a desired stormwater quantity treatment storage volume. Peak runoff rates and runoff volumes can be reduced and groundwater can be recharged when bioretention is located in an area with the appropriate soil conditions to provide infiltration. Bioretention is normally designed for the water quality or "first flush" event, typically the first 1"-1.5" of rainfall, to treat stormwater pollutants.

Vegetated Swale: is a shallow, open-channel stabilized with grass or other herbaceous vegetation designed to filter pollutants and convey stormwater. Swales are applicable along roadsides, in parking lots, residential subdivisions, commercial developments, and are well suited to single-family residential and campus type developments. Water quality swales are designed to meet shear stress targets for the design storm, may be characterized as wet or dry swales, may contain amended soils to infiltrate stormwater runoff, and are generally planted with turf grass or other herbaceous vegetation.

First Flush: This is the given volume of water generated in the drainage area from the first 1" to 1.5" of rainfall.

Rain Garden: a shallow depression in a landscape that captures water and holds it for a short period of time to allow for infiltration, filtration of pollutants, habitat for native plants, and effective stormwater treatment for small-scale residential or commercial drainage areas. Rain gardens use native plants, mulch, and soil to clean up runoff.

## POST CONSTRUCTION STORM WATER MANAGEMENT, CONT.

**BMP # 3: Pervious Paving material is used in City projects** where applicable. Past projects include sidewalks at Boothe Road Extension, Fairhope Police Station, Bancroft Avenue sidewalk, the Volanta sidewalk, Knoll Park, and Coastal Alabama College Campus.

**Responsible Department:** Public Works (Director)

**BMP # 4: City Storm Water Projects:** The City of Fairhope Public Works Department completes several storm water projects annually. Projects include bioretention and storm water facility installation and maintenance (on City property), pervious sidewalk installation (on City right of way), bluff stabilization and repair (on City property) and drainage improvements on City right of way.

**Responsible Department:** Public Works Director; Water and Sewer Director



**Figure 49** City stormwater project on North Mobile Street

## POST CONSTRUCTION STORM WATER MANAGEMENT, CONT.

**BMP # 5: Creek / Shoreline Assessment by Kayak:** The Planning and Zoning Department staff conducts a creek or shoreline assessment (by kayak) annually, of a portion of the City of Fairhope MS4 area. Assessed shoreline area will change every year according to suspected projects, outfalls due for assessment and/or other considerations. Target items are negative impacts of drainage, erosion and sedimentation (manmade or otherwise), and drain pipes dumping into the body of water (privately owned and city owned pipes/conveyance systems/outfalls).

**Responsible Department:** Planning and Zoning Department (Code Enforcement)

**BMP #6: Standard Courtesy Letter to Property Owners:** In 2012, the Planning Department, in conjunction with the Public Works Department, developed a standard letter to be sent to property owners (including Property Owners Associations) of potentially non-compliant or failing storm water facilities (detention ponds, etc.). This has proven to be an effective means of notifying property owners of downstream impacts, and potential liability issues, especially with subdivisions built prior to 2007 (which are exempt from the O & M plan requirement). After outfalls assessments are conducted (annually), those found with significant deficiencies receive a letter from the Public Works Director stating the deficiency found and requesting maintenance and/or repair of facility.

**Responsible Department:** Public Works Department (Director)

**BMP #7: Annual Email to POA / HOA Groups: HOA Stormwater Guide**

According to the Storm Water Standards written into the City of Fairhope Subdivision Regulations, Section F. (7) regarding detention and retention ponds: *“Such facilities shall be owned, operated and maintained by the development entities and shall not be accepted for inspection or maintenance by the City of Fairhope”*. Therefore, the City emails the POA / HOA presidents or contact persons an electronic copy of the brochure titled *“A Homeowner Guide to Detention Pond Maintenance* annually as a reminder of this requirement. This brochure was drafted in May 2018 by the Weeks Bay Foundation and Weeks Bay National Estuarine Research Reserve for the City of Fairhope to use as outreach and MS4 compliance. This is used by the City to educate property owners of stormwater facilities of their responsibility for maintenance of their subdivision pond or ponds. This in turn helps the City achieve compliance with the MS4 permit requirement which states that the City of Fairhope *“shall include an inspection schedule, to include inspection frequency, within the SWMPP; maintain or require the developer/owner/operator to keep records of post construction inspections, maintenance activities and make them available to ADEM upon request and require corrective actions to poorly functioning or inadequately maintained post-construction BMPs”*. The City of Fairhope Planning and Zoning Department maintains a *“Subdivision Contact List”*.

**Responsible Department:** Planning and Zoning Department (Code Enforcement); Public Works Department (Director)

## A HOMEOWNER GUIDE TO STORMWATER DETENTION POND MAINTENANCE



### IF YOU HAVE SOMETHING LIKE THIS ON YOUR PROPERTY, OR IN YOUR SUBDIVISION, THIS GUIDE IS FOR YOU!

Stormwater detention areas are built to safely hold stormwater that runs off from impervious surfaces during heavy rain events. This reduces the flow into rivers and streams during storms, and decreases flooding.

Unfortunately, if these structures are not inspected, maintained, and managed correctly, they can actually increase flooding, cause a safety hazard, and negatively affect property values.

As a homeowner or member of a Home Owners Association you have a responsibility to keep your pond in good working condition. This guide and checklist will help you to ensure that your stormwater structure is able to handle our rainy Gulf Coast seasons.

### INDEX OF DEFINITIONS

**Storm Water:** any water that runs over the surface before it reaches a waterway. This can be runoff from parking lots, streets, roofs, and other impervious surfaces.

**Impervious surface:** any material that does not allow rain to enter into the soil.

**Wet detention pond:** a pond designed to have a permanent pool of water during normal conditions. The pond only releases water during heavy rainfall events.

**Dry detention pond:** a pond that will normally not have standing water, except for a short time after a large storm event.

**Inlet:** the mechanism that allows water into the stormwater basin or pond. Usually a pipe, ditch, or swale.

**Outlet:** the structure that controls the rate of release from the pond and the water depth and storage volume in the pond.

**Outfall:** the point where collected stormwater reenters a natural waterway.

**Rip rap:** Rock material typically used to stabilize conveyance channels.

**Emergency spillway:** discharges excess stormwater during substantial runoff events.

**O&M:** Operations and Maintenance.

### WHY SHOULD YOU BOTHER TO MAINTAIN YOUR POND?

- When rainfall runs over impervious surfaces it does not have time to soak into the ground, so it ends up entering our waterways in large quantities. This often results in increased flooding that can damage homes, businesses, and roads.
- Stormwater runoff is a big source of water pollution in our area. Everything that sits on our roads and parking lots, eventually runs into our streams and rivers with rainfall. Stormwater ponds allow some of these pollutants to settle out and filter through the ground.
- Well maintained ponds can actually be an aesthetically pleasing addition to a neighborhood. In addition, they can provide habitat for native species of birds, reptiles, and amphibians.
- There can be legal consequences of not properly maintaining your stormwater detention facility.

Provided by the Weeks Bay Foundation and the Weeks Bay National Estuarine Research Reserve  
Through collaboration with the Coastal Training Program and local municipalities

Figure 50 HOA Stormwater Guide Page 1

## A HOMEOWNER GUIDE TO STORMWATER DETENTION POND MAINTENANCE

### ROUTINE MAINTENANCE

**Inspections:** Periodic scheduled inspections with the attached checklist, and inspections after major rainfall events, to check for damage & to remove debris/ trash.

**Vegetation Management:** Mowing on a regular basis to prevent erosion or aesthetic problems. Trees and shrubs should not be allowed to grow in the pond basin. Limit use of fertilizers and pesticides in and around the ponds to minimize leaching into pond and subsequent downstream waters.

**Erosion:** Appropriate mowing equipment and machinery should be used on pond structure to avoid erosion.

**Trash, debris and litter removal:** Removal of any debris causing obstructions and especially after every runoff producing rainfall event. General pickup of debris in and around the pond during all inspections.

**Mechanical Equipment check:** Inspection of any valves, pumps, fence gates, locks or mechanical components during periodic inspections. Plans for appropriate replacement/repair should be made at the time of documentation.

**Structural Component check:** Inspection of the inlet, outlet, and other structural features on a regular basis for additions to the annual Non-Routine Maintenance list.

### NON-ROUTINE MAINTENANCE

**Bank erosion/stabilization:** It is critical to keep effective ground cover on the exposed pond areas to ensure that loose sediment does not fill up the pond. In addition, vegetation increases infiltration of runoff, and effectively filters pollutants. All areas not vegetated should be re-vegetated and stabilized immediately

**Sediment removal:** The sediment accumulation should be monitored and the pond depths checked at several points. If the depth of the accumulated sediment is greater than 25% of the original design depth, sediment should be removed.

**Structural Repair/Replacement:** Over time, even excellent stormwater structures get damaged and need repair and replacement. Plan for expenses related to general wear and tear at yearly intervals.

### SO HOW DO YOU PAY FOR ALL THIS WORK?

The property owner or the HOA should consider establishing an O&M fund and assess annual fees for maintenance.

After several years of operation with these set fees, it may be necessary to re-evaluate maintenance costs for the actual operation of the pond.

The fund should also contain funds for emergency repairs related to hurricanes or other storm events.

**Remember:** *Functioning stormwater systems benefit everyone in the community with improved water quality, better aesthetics, and decreased flooding and pollution.*



Provided by the Weeks Bay Foundation and the Weeks Bay National Estuarine Research Reserve  
Through collaboration with the Coastal Training Program and local municipalities

Figure 51 HOA Stormwater Guide Page 2

## A HOMEOWNER GUIDE TO STORMWATER DETENTION POND MAINTENANCE

### INSPECTION CHECKLIST

*Checklist used should be specific to your site, such as the one provided in your subdivision's Operation and Maintenance Plan*

Date: \_\_\_\_\_ Detention Facility: \_\_\_\_\_ Inspected by: \_\_\_\_\_ Phone: \_\_\_\_\_

Type of Facility:    Dry Pond    Wet Pond    Outfall      Type of Inspection:    Routine    Post – Storm

ISSUE	PROBLEM NOTED? YES or NO	STEPS TO BE TAKEN	DATE OF COMPLETION
Are all structural components working properly?			
Is water flowing out of the outflow pipe?			
Are there any cracks or damaged areas on inlet/outflow pipes? Spillway? Weir?			
Does the grass need to be cut?			
Has unwanted vegetation grown over the outflow or inlet pipes?			
Overgrowth of algae noted?			
Invasive plants noted?			
Areas that need to be reseeded/replanted?			
Are there signs of erosion?			
Is there noticeable sedimentation in the basin? In the inlet/outflow?			
Signs of pollution? (Oily sheen, foam, etc.)			
Signs of vandalism?			
Signs of pests? (Burrowing, nesting, fire ant hills)			

Other Comments/Observations:

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Figure 52 HOA Stormwater Guide Page 3



## A HOMEOWNER GUIDE TO STORMWATER DETENTION POND MAINTENANCE

### FAIRHOPE RESOURCES FOR STORMWATER QUESTIONS

**Fairhope**

Richard Johnson  
Richard.johnson@fairhopeal.gov  
(251) 928-8003

**Online**

EPA Stormwater Program  
<https://www.epa.gov/npdes/npdes-stormwater-program>

ADEM Stormwater  
<http://www.adem.state.al.us/programs/water/default.cnt>

NOAA  
<http://www.noaa.gov/resource-collections/watersheds-flooding-pollution>



Portions of the content of this document are based on existing information from other stormwater programs. Special thanks goes to the following:

Canon City Stormwater Program "Maintaining Detention Ponds"

Oregon Department of Transportation, "Maintenance Requirements for Water Quality Features"

City of Portland Oregon, "Stormwater Management Facilities Operation and Maintenance for Private Property Owners"



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Figure 53 HOA Stormwater Guide Page 4

## POST CONSTRUCTION STORM WATER MANAGEMENT, CONT.

### ➤ Measurable Goals:

- 1. One Year Goal: Community Event for Stormwater Education**  
**Responsible Department:** Planning and Zoning Department  
**Goal:** Facilitate or support community event: hands on event related to post-construction storm water education (such as Earth Day watershed exhibit)  
**Due:** December 2021
- 2. One Year Goal: Creek/Shoreline Assessment by Kayak**  
**Responsible Department:** Planning and Zoning Department  
**Goal:** Conduct creek or shoreline assessment via kayak to look for pipes, pollutants or sediment discharging into the creek or shoreline, and obstructions in the creek or shoreline.  
**Due:** December 2021



**Figure 54 Planning and Zoning Staff conducting shoreline assessment, Fly Creek, September 2020**

**7.0 MINIMUM CONTROL MEASURE # 5:  
POLLUTION PREVENTION / GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS**

- **Requirements:** Develop and implement a program that will prevent or reduce the discharge of pollutants in storm water run-off from municipal activities to the maximum extent practicable. The program elements shall include, at a minimum, the following: An inventory of all municipal facilities that have the potential to discharge pollutants via storm water run-off; Strategies for implementation of BMPs to reduce litter, floatables and debris from entering the MS4 and evaluation of those BMPs annually (including a plan to remove litter, floatable and debris material from the MS4); SOP for municipal activities; program for inspecting municipal facilities for good housekeeping practices; and a training program for municipal staff. More details on these requirements can be found in the general permit.
  
- **Responsible Persons:** Planning and Zoning Department; Building Department; Public Works Department; Golf Course; Recreation Department; Gas Department; Water and Sewer Department; Electric Department; Police Department; Fire Department; Mechanic Shop; City Hall; Water and Sewer Director; Community Development; Special Projects Manager
  
- **Rationale Statement:** The City of Fairhope has many departments within its own authority. Those operated by Public Works are noted, City facilities include:
  - Mechanic Shop (AL0000324764)-Public Works
  - Waste Water Treatment Plant (AL0020842)
  - C & D Landfill (Permit #02-07)-Public Works
  - Quail Creek Golf Course
  - Recreation Department
  - Gas Department
  - Water and Sewer Department
  - Electric Department
  - Public Works / Recycle Facility / Transfer Station
  - Greenhouse (Nichols Avenue & Public Works)
  - Police Department
  - Volunteer Fire Department
  - City Hall / Civic Center
  - The Haven (Animal Shelter)
  - City Marinas:
    - Fairhope Docks @ Sea Cliff Drive
    - Municipal Pier

## POLLUTION PREVENTION / GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS, CONT.

All department heads / directors are responsible for pollution prevention / good housekeeping in each respective department. This is implemented through weekly or monthly staff meetings and training. The Public Works Department Sanitation Officer and the Planning and Zoning Department Code Enforcement Officers periodically monitor the Public Works facility and maintenance / shop areas, to ensure compliance with the City of Fairhope IDDE program. Any deficiencies are reported to the Department Director. If not resolved within a timely manner, inefficiencies are reported to the Mayor for resolution.

The City of Fairhope provides garbage, trash and recycling pickup weekly (garbage twice weekly), and this aids in keeping our storm drains clean. Daily street sweeping operations also remove debris from streets and storm drains.

The City of Fairhope owns two marinas: Fairhope Docks at the end of Sea Cliff Drive on Fly Creek and the Fairhope Municipal Pier. The Fairhope Docks marina is owned and operated by the City of Fairhope. The Fairhope Municipal Pier marina is leased, together with the building housing a restaurant, and the lessee manages the marina. Both facilities offer boat slips. Both areas have sewage pump out facilities available. Fairhope Docks is following Clean Marina guidelines while undertaking necessary repairs and renovation work. At this time there are no industrial or boat maintenance/repair activities listed for either marina. The City is considering providing dry storage and/or a boatyard. In the case of the boatyard, the lessee will be responsible for acquiring ADEM permitting.

These City facilities operate under the following ADEM Permits:

1. Mechanic Shop, 560 South Section Street (AL0000324764)
2. Waste Water Treatment Plant, 300 N. Church Street (AL0020842)
3. C & D Landfill, 555 South Section Street (AL 02-07)

➤ **BMPs / Mechanisms for compliance of pollution prevention / good housekeeping:**

1. Employee Meetings
2. Pest Management
3. Waste Management Program (Garbage, Trash, Recycling, HHW)
4. Street Cleaning with Street Sweeper
5. Storm Water Project work by City Employees
6. *Field Guide for Erosion and Sediment Control on Construction Sites in Alabama*, by Alabama Soil and Water Conservation Committee and Partners
7. Dedicated Wash Racks for Vehicles
8. SOP for Municipal Activities

## POLLUTION PREVENTION / GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS, CONTINUED:

**BMP # 1: Employee Meetings:** Employee meetings are held in most departments monthly (and in some cases weekly), and housekeeping items are addressed throughout the year.

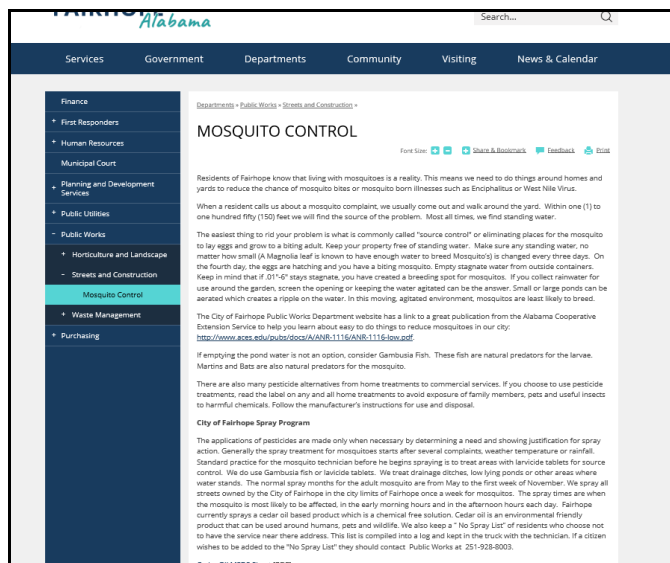
### **BMP # 2: Pest Management:**

**a. Certified Pesticide Applicators:** Pesticide, herbicide and fertilizer application is overseen by certified applicators, in the Public Works and Golf Course. Two employees within the City of Fairhope are currently certified through the State of Alabama Department of Agriculture and Industries as certified pesticide applicators. This specialized training ensures that pesticide, herbicide and fertilizer application on City property is done in accordance with manufacturer's recommendations in the most environmentally friendly method possible. Applicator license (3 year) certifications include:

- a. Public Works, Landscape Supervisor
- b. Golf Course Grounds Supervisor
- c. Parks and Recreation Director

**b. Mosquito Control Program / Source Control:** The City of Fairhope Mosquito Control program is a seasonal spray program using a Cedar Oil based spray dispensed road side from a City pick-up truck. The MSDS for the cedar oil spray is available on the City website. The City of Fairhope Public Works Department sprays areas in the city limits weekly during mosquito season. The City of Fairhope Public Works Department maintains a "no spray" list for those residents who prefer not to have their respective right of way areas sprayed. Source control is encouraged.

<https://www.fairhopeal.gov/departments/public-works/streets-and-construction/mosquito-control>



**Figure 55 Mosquito control information from City of Fairhope website**

## POLLUTION PREVENTION / GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS, CONTINUED:

### **BMP # 3: Waste Management Program:**

*Garbage, Trash and Recycling Pickup:* Recycling is picked up weekly, curbside for residents and commercial businesses. Based on recent years averages, about 1,500 tons of material are recycled annually (paper, cardboard, glass, plastic, and metals). Yard waste is picked weekly from residents and placed in the City yard waste pile (at 555 South Section Street) for mulching, grinding or land reclamation efforts. Based on recent years' averages, about 30,000 cubic yards of yard waste (organic) material are removed annually from residential right of ways, contributing to keeping the storm drains clear from debris. Garbage pickup is offered two times per week for residents, and up to five times per week for commercial businesses. Based on recent years' averages, about 9,000 tons of garbage are removed and disposed of in the Baldwin County sanitary Magnolia Landfill. There is a drop off site at the Public Works facility for trash, HHW and recycling. There is also a Transfer Station for garbage. **Recycling Facility / HHW:** The Sanitation Officer (Public Works) is responsible for overseeing these areas are kept clean and ensures there is no illicit discharge from these activities. Tires, HHW chemicals, motor oils, electronics and anything that could contribute to an illicit discharge is kept covered, to the maximum extent practical.

Residents and businesses are encouraged to recycle. Mechanisms for education include:

1. Mobile Area Earth Day; E-waste recycling event (April)
2. America Recycles Day; E-waste recycling event (November)
3. City website ([www.fairhopeal.gov](http://www.fairhopeal.gov))

**BMP # 4: Street Sweeper:** The City of Fairhope Public Works Department owns two street sweepers. Streets are swept daily in the downtown area, removing sediment and debris from the roadways, and storm drains. Other main streets in the City of Fairhope are swept weekly.

**BMP # 5: Project work by City Employees:** City departments are required to obtain City of Fairhope construction / land disturbance permits (as well as any necessary State and Federal permits) for planned projects; City projects are held to the same standards as other projects. The Code Enforcement Officer (Planning and Zoning Department) and the Building Inspectors (Building Department) ensure that erosion and sediment control on construction projects are done in accordance with City of Fairhope BMP standards (which follow the *Alabama Handbook*). The Right of Way Inspector hired in 2020 monitors and enforces erosion and sediment control on city right of way projects as well as other utility projects on the right of way. City of Fairhope crew leaders of right of way and utility work are given the *Field Guide for Erosion and Sediment Control on Construction Sites in Alabama* as a reference tool.

**POLLUTION PREVENTION / GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS, CONTINUED:**

**BMP # 6: *Field Guide For Erosion and Sediment Control on Construction Sites in Alabama***, by the Alabama Soil and Water Conservation Committee and Partners, is a pocket size pamphlet available to contractors and other permittees on request in the Building Department.

**BMP # 7: Dedicated Wash Racks: Vehicle / Equipment Washing:** Employees in all departments within the City are instructed to wash vehicles and equipment only in designated areas, which are connected to the City of Fairhope Waste Water Treatment plant. The City currently has seven (7) designated wash rack facilities, which discharge into the Waste Water Treatment plant, within its operation. Wash rack facilities include the main wash rack at Public Works (555 South Section Street), the Transfer Station at Public Works, Founders Park Maintenance Barn (Founders Park, Hwy. 44), and car wash facilities at the Police Department (107 North Section Street) and Fire Stations. Fire Station addresses are: Station #1- 198 S. Ingleside Drive; Station #2- 19875 Thompson Hall Road; and Station #3- 8600 Highway 32 (Airport). **Director or department head of each department is responsible for overseeing the proper washing of vehicles and equipment in his / her respective department.** The Public Works Department has a "Tire Rinse" station (open grate drain) for the rinsing of mud and sediment from bulldozer tracks and equipment tires. This grate drain has a sediment removal basin, which is cleaned out annually by the Public Works Department. There is signage at this basin stating this is for "Tire Rinsing Only". Vehicles are not allowed to be washed off here, since this drains directly to Tatumville Gully.

## POLLUTION PREVENTION / GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS, CONTINUED:

### BMP # 8: SOP For Municipal Activities:

In 2016, Public Works created a Standard Operating Procedure for their activities (revised in 2018):

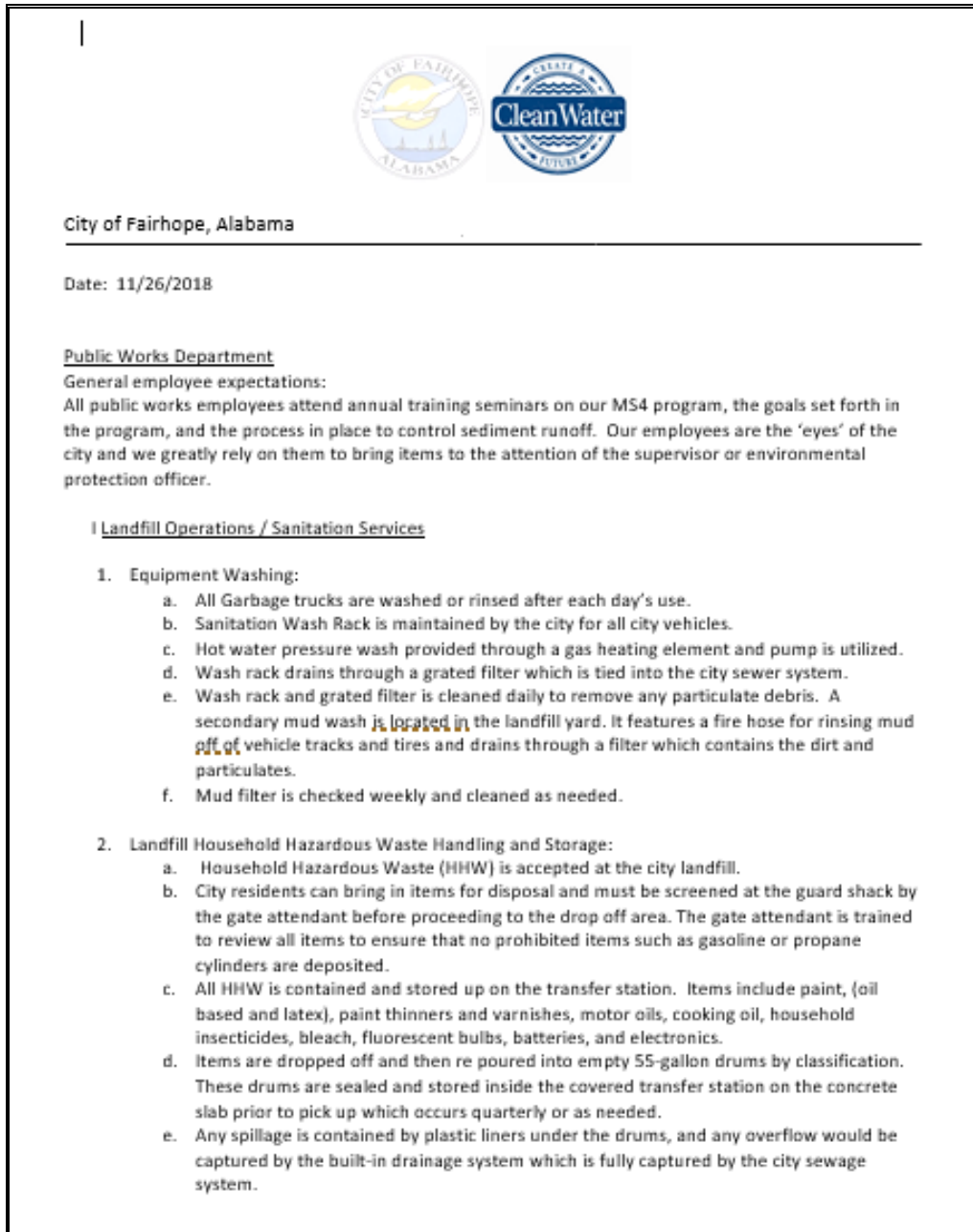


Figure 56 SOP for Municipal Activities Page 1



3. Tires:
  - a. Residents may bring in tires and are charged a nominal fee.
  - b. Tires are stored in a covered shed before being loaded into container boxes or box vans and hauled off to a certified processing facility.
  
4. Landfill Housekeeping:
  - a. Litter control is maintained daily and weekly by walk through inspections by the certified landfill operator(s).
  - b. Litter collection is maintained by work parties (inmates) collecting misplaced debris and litter weekly.
  - c. All Public Works employees are tasked with the general responsibility to pick up and collect any litter seen in or around the landfill itself.

#### II Public Works Streets

Street sweeping constitutes the major thrust toward keeping solid debris from entering the City's storm water drainage system, along with solid waste collection during trash pick-up times. To help keep our streets clean and reduce the amount of polluted storm water runoff from entering our waterways, the City operates two street sweepers. The sweepers have a fixed route and schedule.

1. Public Works sweeping plan:
  - a. Downtown and beach areas are swept three times a week; Monday, Wednesday and Friday
  - b. All subdivision and streets built since 1995 are swept once a year between May and October or as needed. They should stay on this schedule until street trees reach a height of twenty foot.
  - c. When street trees planted closer than 70 foot apart and or reach a height of twenty foot or larger, streets inside subdivisions shall be swept every six weeks between November and April. The same streets shall be swept once between April and November or as needed.
  - d. In the Fruit and nut, North Mobile area, Bon Secour area, Colonial acres, Dogwood, Azalea, Wisteria, Sea Cliff, City owned right of way in Montrose, and other heavily forested areas; streets are swept every two weeks between Mid-February and Mid-April or during the Live Oak leaf season drop. These areas are swept monthly in November, December and January and once between November and April or as needed.
  - e. The sweeper dumps litter after sweeping on the city of Fairhope solid waste transfer station for disposal into a solid waste landfill.

Figure 57 SOP for Municipal Activities Page 2

2. Public Works Street Materials:

Public Works designed a storm water management plan for the laydown yard. The site has a split drainage plan over the top, creating water flow that is channeled behind the city greenhouses to the North. The Northern channel is captured in underground storage pipes behind the greenhouses. The southern watershed is diverted to the retention pond East of the city warehouse.

- a. Fairhope Public Works maintains the following materials in the Public Works yard: Street rock is maintained in piles in different areas of the Public Works yard. The materials are left openly accessible for vehicles to load and unload. The materials are placed in such a way as not to wash out during heavy rain storms. Due to the nature of the materials it is not considered a potential contaminant for storm water.
- b. Concrete pipe, brick and masonry block are stored in different locations and are not considered hazardous to storm water.
- c. Streets and Construction: During Public Works streets and construction projects along right of way, personnel use BMP plans that call for wattles, hay bales and silt fencing. The plan may be submitted for approval by the building department on large projects. When this plan is submitted, it triggers regular inspections from the environmental officer. After any right of way project is complete, sod or hay mat is installed to prevent erosion. The supervisor for the project is responsible for compliance.

III. Landscape Operations

1. Debris Removal:

- A. Generation of organic landscape debris is handled according to city policy:
  - Crews stack debris to facilitate pick up by city trash trucks or by landscape trailers.
  - Stumps are ground down and picked up the same as regular debris.
  - All debris from trimming and pruning are hauled off daily to city mulch field.
  - City mulch field is area located on the landfill grounds where vegetative debris are deposited, pushed and spread out, covered with dirt and compacted.
  - Only organic vegetative debris is allowed to be placed here.
- B. Roadside litter is collected 5 days per week on the same schedule as mowing, bush hogging, and arm mowing. Dedicated employee rides along the routes and collects any litter present before the area is mowed.

2. Applications of Pesticides and Fertilizers follow the State of Alabama rules and regulations:

- A. All pesticides and chemical fertilizers are stored in original marked containers.
- B. All chemical containers are kept in a locked storage area.
- C. Use is monitored by trained and certified employees for approved application procedures.
- D. All empty containers are triple rinsed when empty.
- E. Disposal of containers will go into the Transfer Station for disposal in Magnolia Springs Landfill (containers, including washed and empty containers. Containers not allowed in the City C&D landfill)
- F. Any spillage or overages are contained and submitted into the city hazardous household waste facility, stored in 55gallon drums, and turned over to an industrial chemical disposal company for destruction.

Figure 58 SOP for Municipal Activities Page 3

**POLLUTION PREVENTION / GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS, CONTINUED:**

➤ **Measurable Goals**

**One Year Goals:**

**1. Good Housekeeping / Pollution Prevention memo for all departments**

**Responsible Department:** Planning and Zoning Department

**Goal:** Create and send out a memo to all departments, reminding employees of good housekeeping or pollution control practices (*Planning Director*)

**Due:** December 2021

**2. Dry Weather Screening of Public Works Facility**

**Responsible Department:** Public Works

**Goal:** Conduct dry weather screening of the facility at 555 South Section Street, to ensure rinsing activities are in designated areas; recycle and drop off materials are properly managed and covered; and to ensure Public Works activities are not contributing to illicit discharges. (*Public Works Dept. Sanitation Officer*)

**Due:** December 2021



**Figure 59 Aerial of Public Works Warehouse and Facility, 555 South Section Street**

**3. Recertify Pesticide Applicator's License #2002077**

**Responsible Party:** Golf Course Supervisor

**Goal:** Renew Commercial Applicator's License

**Due:** December 2021

**4. Recertify Pesticide Applicator's License #2002057**

**Responsible Party:** Public Works Landscape Supervisor

**Goal:** Renew Commercial Applicator's License

**Due:** December 2021

