

# City of Fairhope, Alabama Stormwater Management Program Plan Phase II General Permit # ALRO40040

2024 (April 1, 2024– March 31, 2025)



Report Prepared By: City of Fairhope Planning and Zoning Department 451 Pecan Avenue Fairhope, AL 36532

## **Table of Contents**

- 1.0 CONTACT LIST AND INTRODUCTION
  - 1.1 CERTIFICATION
  - 1.2 LIST OF CONTACTS
  - 1.3 GENERAL INTRODUCTION
- 2.0 STORMWATER MANAGEMENT PROGRAM PLAN REQUIREMENTS
  - 2.1 LISTED REQUIREMENTS
  - 2.2 MANAGEMENT
  - 2.3 WATERSHEDS OF FAIRHOPE
  - 2.4 MS4 AREA MAP
- 3.0 MINIMUM CONTROL MEASURE # 1: PUBLIC EDUCATION AND PUBLIC INVOLVEMENT ON STORMWATER IMPACTS
- 4.0 MINIMUM CONTROL MEASURE # 2: ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)
- 5.0 MINIMUM CONTROL MEASURE # 3: CONSTRUCTION SITE STORMWATER RUNOFF CONTROL
- 6.0 MINIMUM CONTROL MEASURE # 4: POST CONSTRUCTION STORMWATER MANAGEMENT
- 7.0 MINIMUM CONTROL MEASURE # 5: POLLUTION PREVENTION / GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

# 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.

Shorry Sullivan, Mayar

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:

Nicole Love

161 N. Section Street Fairhope, AL 36532 (251) 928-8003

#### 1.3 General Introduction

The City of Fairhope is situated on the eastern shore of Mobile Bay in Baldwin County, in southwest Alabama. The 2020 US Census determined the City's population estimate to be 22,477. The annexed limits, which are also the MS4 area limits, comprise 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 2023, there are three 303(d) impaired streams listed by ADEM. The next update for the 303 (d) list from ADEM will be April 2024:

- 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 the 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.

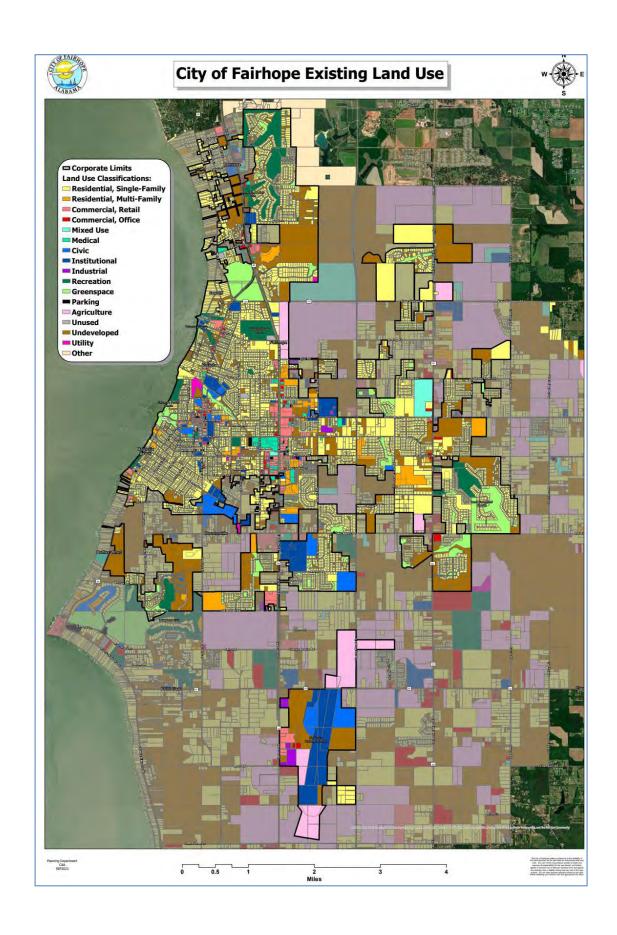
It is not anticipated that the City of Fairhope MS4 area is a contributor to any of these impairments. There are no known cattle grazing activities in the Fly Creek watershed or Turkey Branch watershed in the city limits. There are no known activities which might contribute to atmospheric mercury deposition.

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

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.



Figure 1: 2023 Conceptual Master Plan of the Triangle Park, a 108 acre green belt owned by the City of Fairhope, focuses on protection and outreach in the Fly Creek watershed for 2024.



#### 2.0 STORMWATER MANAGEMENT PROGRAM PLAN (SWMPP) REQUIREMENTS

#### 2.1 Listed Requirements

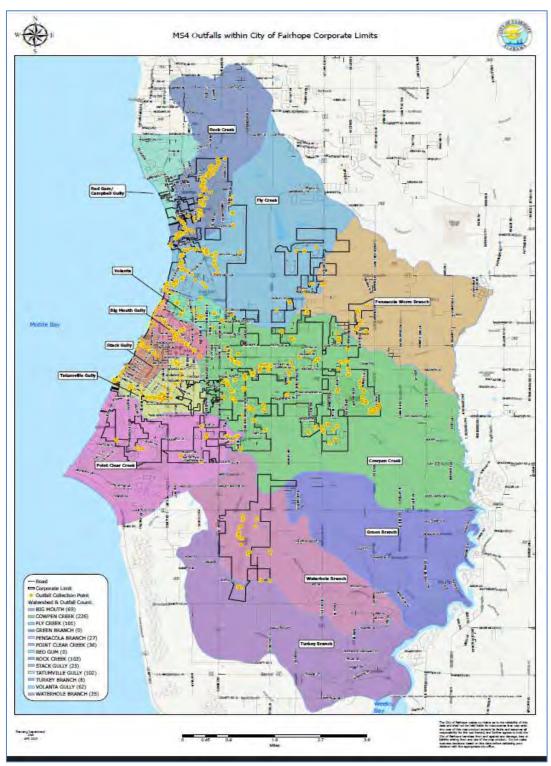
According to the general permit for Fairhope (the "Permittee"):

- 1. The Permittee is required to develop, revise, implement, maintain 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 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 (MEP).
- 2. The Permittee shall provide and maintain adequate finance, staff, equipment, and support capabilities necessary to implement the SWMPP and comply with the requirements of this permit.
- 3. The SWMPP must address the minimum stormwater control measures referenced in Part III.B. to include the following:
  - 1. A map of the Permittee's MS4 urbanized areas.
  - 2. The BMPs that will be implemented for each control measure. Low impact development/green infrastructure shall be considered and actively encouraged where feasible. Information on LID/Green Infrastructure is available on the following websites:

    <a href="http://www.adem.alabama.qov/programs/water/waterforms/LIDHandbook.pdf">http://www.adem.alabama.qov/programs/water/waterforms/LIDHandbook.pdf</a> and https://epa.gov/nps/urban-runoff-low-impact-development;</a>
  - 3. The measurable goals for each of the minimum controls outlined in Part III.B.;
  - 4. The proposed schedule—including interim milestones, as appropriate, inspections, and the frequency of actions needed to fully implement each minimum control; and
  - 5. The person and/or persons responsible for implementing or coordinating the BMPs for each separate minimum control measure.
- 4. Unless otherwise specified in this permit, the Permittee shall be in compliance with the conditions of this permit by the effective date of coverage.

The SWMPP shall address these Minimum Control Measures:

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



Outfall & Watershed Map as of April 2023, provided by Fairhope Planning and Zoning GIS (CA)

Watershed	MS4	Lat	Long
Big Mouth Gully	BMG-1729-D	-87.90204701	30.5287626
Big Mouth Gully	BMG-62119-C	-87.89784294	30.52869404
Big Mouth Gully	BMG-62119-D	-87.89872004	30.52786037
Big Mouth Gully	BMG-62119-E	-87.89911306	30.52814954
Big Mouth Gully	BMG-1706-D	-87.90170136	30.52856884
Big Mouth Gully	BMG-1729-E	-87.9019542	30.52866295
Big Mouth Gully	BMG-62119-A	-87.8979336	30.52869602
Big Mouth Gully	BMG-62119-B	-87.89812263	30.52854236
Big Mouth Gully	BMG-1729-A	-87.90197111	30.52867398
Big Mouth Gully	BMG-1729-B	-87.90270069	30.52965146
Big Mouth Gully	BMG-12785-A	-87.90219408	30.52822055
Big Mouth Gully	BMG-12785-B	-87.90107342	30.52710913
Big Mouth Gully	BMG-77830-A	-87.90072213	30.52626287
Big Mouth Gully	BMG-15415-A	-87.89959533	30.52538901
Big Mouth Gully	BMG-202833-A	-87.8967742	30.52450123
Big Mouth Gully	BMG-78860-A	-87.89719177	30.52403363
Big Mouth Gully	BMG-78860-B	-87.89718091	30.52402268
Big Mouth Gully	BMG-15020-A	-87.90091328	30.52533798
Big Mouth Gully	BMG-12785-C	-87.90205241	30.52871992
Big Mouth Gully	BMG-1729-C	-87.90207593	30.52889974
Big Mouth Gully	BMG-77830-B	-87.90085703	30.52585247
Big Mouth Gully	BMG-77830-C	-87.9007829	30.52574547
Big Mouth Gully	BMG-12785-D	-87.90005618	30.52689068
Big Mouth Gully	BMG-202833-B	-87.89683673	30.52452128
Big Mouth Gully	BMG-12785-E	-87.89677162	30.52436516
Big Mouth Gully	BMG-15026-A	-87.89851388	30.52495798
Big Mouth Gully	BMG-12785-F	-87.90277528	30.52870697
Big Mouth Gully	BMG-77828-A	-87.89425348	30.5219164
Big Mouth Gully	BMG-77557-A	-87.89448055	30.52207364
Big Mouth Gully	BMG-77557-B	-87.89450705	30.5220508
Big Mouth Gully	BMG-78875-A	-87.89266635	30.52017638
Big Mouth Gully	BMG-77557-C	-87.89446457	30.52201741
Big Mouth Gully	BMG-27699-A	-87.90502298	30.53702913
Big Mouth Gully	BMG-100289-A	-87.90595381	30.53216236
Big Mouth Gully	BMG-38875-A	-87.9050415	30.53232188
Big Mouth Gully	BMG-69651-A	-87.90555232	30.53231082
Big Mouth Gully	BMG-40542-A	-87.90581907	30.53204744
Big Mouth Gully	BMG-40542-B	-87.90580124	30.53204137
Big Mouth Gully	BMG-38430-A	-87.9040711	30.53129795
Big Mouth Gully	BMG-1706-A	-87.90076668	30.52832542
Big Mouth Gully	BMG-1706-B	-87.90065982	30.52803377
Big Mouth Gully	BMG-1706-C	-87.89961027	30.52753017
Big Mouth Gully	BMG-30256-A	-87.89921638	30.52753831

Big Mouth Gully	BMG-30256-B	-87.89919454	30.52752109
Big Mouth Gully	BMG-12785-G	-87.89597086	30.52367911
Big Mouth Gully	BMG-12785-H	-87.8959559	30.52364079
Big Mouth Gully	BMG-12785-I	-87.89588022	30.52348766
Big Mouth Gully	BMG-64365-A	-87.89550565	30.52328588
Big Mouth Gully	BMG-38430-B	-87.90427486	30.5313125
Big Mouth Gully	BMG-10618-A	-87.90435225	30.53122931
Big Mouth Gully	BMG-64359-A	-87.90318308	30.52966072
Big Mouth Gully	BMG-64359-B	-87.90313402	30.52970114
Big Mouth Gully	BMG-64359-C	-87.90330675	30.52990632
Big Mouth Gully	BMG-64360-A	-87.9072851	30.53001581
Big Mouth Gully	BMG-64360-B	-87.90886302	30.52932088
Big Mouth Gully	BMG-27699-B	-87.90514374	30.53705852
Big Mouth Gully	BMG-69776-A	-87.90548598	30.53667112
Big Mouth Gully	BMG-72494-A	-87.90469594	30.53488684
Big Mouth Gully	BMG-6515-A	-87.90645669	30.53529516
Big Mouth Gully	BMG-10058-A	-87.90717599	30.5342367
Big Mouth Gully	BMG-40542-C	-87.90785894	30.53290695
Big Mouth Gully	BMG-40542-D	-87.90729757	30.5326753
Big Mouth Gully	BMG-30256-C	-87.89935806	30.52748051
Big Mouth Gully	BMG-12785-J	-87.89577932	30.52345578
Big Mouth Gully	BMG-64359-D	-87.90442307	30.53112651
Big Mouth Gully	BMG-64359-E	-87.90322374	30.52964492
Big Mouth Gully	BMG-64359-F	-87.90331398	30.52989756
Big Mouth Gully	BMG-64359-G	-87.90416227	30.53102819
Big Mouth Gully	BMG-64360-C	-87.90842029	30.53086939
Cowpen Creek	CC-294195-A	-87.83915881	30.51354892
Cowpen Creek	CC-238485-A	-87.88211681	30.53292161
Cowpen Creek	CC-50796-A	-87.88309658	30.53440252
Cowpen Creek	CC-5613-A	-87.88416458	30.53108198
Cowpen Creek	CC-17291-A	-87.88216079	30.50929076
Cowpen Creek	CC-206958-A	-87.88186778	30.5092323
Cowpen Creek	CC-206963-A	-87.88110509	30.50635641
Cowpen Creek	CC-206963-B	-87.88127828	30.50695082
Cowpen Creek	CC-119223-A	-87.87816936	30.50984413
Cowpen Creek	CC-237577-A	-87.87784087	30.51393486
Cowpen Creek	CC-237577-B	-87.87782568	30.51444889
Cowpen Creek	CC-206851-A	-87.88107697	30.51301654
Cowpen Creek	CC-29098-A	-87.88379796	30.51246544
Cowpen Creek	CC-29098-B	-87.88381688	30.51233352
Cowpen Creek	CC-29098-C	-87.88380839	30.51214189
Cowpen Creek	CC-74451-A	-87.88375635	30.5118918
Cowpen Creek	CC-17292-A	-87.88395645	30.51392626
Cowpen Creek	CC-17291-B	-87.88252938	30.50932623

Cowpen Creek	CC-222826-A	-87.88218112
Cowpen Creek	CC-222826-B	-87.88217478
Cowpen Creek	CC-235362-A	-87.87696042
Cowpen Creek	CC-206958-B	-87.8816847
Cowpen Creek	CC-206958-C	-87.88166142
Cowpen Creek	CC-119199-A	-87.87782548
Cowpen Creek	CC-23648-A	-87.87762238
Cowpen Creek	CC-206851-B	-87.88125759
Cowpen Creek	CC-17291-C	-87.88321441
Cowpen Creek	CC-74451-B	-87.88375204
Cowpen Creek	CC-218178-A	-87.88475104
Cowpen Creek	CC-29098-D	-87.88386659
Cowpen Creek	CC-298869-A	-87.87631474
Cowpen Creek	CC-235662-B	-87.87689853
Cowpen Creek	CC-235352-A	-87.87702688
Cowpen Creek	CC-235352-B	-87.87758595
Cowpen Creek	CC-235360-A	-87.87535232
Cowpen Creek	CC-219976-A	-87.87517117
Cowpen Creek	CC-219959-A	-87.87175806
Cowpen Creek	CC-202709-A	-87.84424374
Cowpen Creek	CC-202710-A	-87.84426735
Cowpen Creek	CC-240793-A	-87.84533769
Cowpen Creek	CC-229486-A	-87.84653957
Cowpen Creek	CC-33239-A	-87.84722458
Cowpen Creek	CC-202710-B	-87.84424082
Cowpen Creek	CC-202735-A	-87.84460006
Cowpen Creek	CC-202735-B	-87.84413928
Cowpen Creek	CC-240797-A	-87.84410006
Cowpen Creek	CC-214912-A	-87.87157484
Cowpen Creek	CC-214912-B	-87.87178824
Cowpen Creek	CC-214919-A	-87.87129179
Cowpen Creek	CC-214912-C	-87.87180599
Cowpen Creek	CC-279571-A	-87.87119999
Cowpen Creek	CC-279571-B	-87.87121925
Cowpen Creek	CC-279712-A	-87.85209265
Cowpen Creek	CC-279712-B	-87.85203778
Cowpen Creek	CC-279712-D	-87.85244788
Cowpen Creek	CC-279808-A	-87.84871635
Cowpen Creek	CC-279808-C	-87.8476051
Cowpen Creek	CC-279773-A	-87.84774582
Cowpen Creek	CC-279774-A	-87.84835469
Cowpen Creek	CC-327274-A	-87.85094815
Cowpen Creek	CC-327273-A	-87.85250705
Cowpen Creek	CC-277045-A	-87.85699502

Cowpen Creek         CC-277045-B         -87.85686558         30.49648921           Cowpen Creek         CC-243423-A         -87.85496467         30.49818576           Cowpen Creek         CC-243423-B         -87.8521041         30.4981994           Cowpen Creek         CC-279808-B         -87.85221041         30.499691607           Cowpen Creek         CC-327274-B         -87.87806538         30.5901503           Cowpen Creek         CC-227043-A         -87.8747749         30.5001089           Cowpen Creek         CC-268723-A         -87.87477921         30.5001089           Cowpen Creek         CC-268727-A         -87.87782015         30.50858313           Cowpen Creek         CC-214601-A         -87.87782015         30.4998552           Cowpen Creek         CC-214601-A         -87.8753154         30.51476108           Cowpen Creek         CC-279132-D         -87.8753154         30.51456791           Cowpen Creek         CC-279132-D         -87.8753154         30.51456791           Cowpen Creek         CC-279170-A         -87.87566093         30.5178893           Cowpen Creek         CC-279079-D         -87.87968289         30.51788909           Cowpen Creek         CC-279079-D         -87.88095834         30.51846955					
Cowpen Creek         CC-243423-B         -87.85416741         30.4981994           Cowpen Creek         CC-279712-C         -87.85221041         30.49691607           Cowpen Creek         CC-279808-B         -87.85048144         30.49901503           Cowpen Creek         CC-327274-B         -87.87800538         30.50153433           Cowpen Creek         CC-268723-A         -87.8747749         30.50047894           Cowpen Creek         CC-268727-A         -87.87479214         30.50010089           Cowpen Creek         CC-214601-A         -87.87782015         30.50058313           Cowpen Creek         CC-214601-B         -87.87781902         30.4998552           Cowpen Creek         CC-279132-C         -87.87507832         30.51476108           Cowpen Creek         CC-279132-D         -87.8753154         30.51456791           Cowpen Creek         CC-279132-E         -87.87539191         30.51445688           Cowpen Creek         CC-279170-A         -87.87566093         30.51785795           Cowpen Creek         CC-279079-D         -87.87968289         30.51788909           Cowpen Creek         CC-279079-D         -87.88095756          30.51849098           Cowpen Creek         CC-14821-B         -87.88092121         30.51846255		Cowpen Creek	CC-277045-B	-87.85686558	30.49648921
Cowpen Creek         CC-279712-C         -87.85221041         30.49691607           Cowpen Creek         CC-279808-B         -87.84766111         30.49857722           Cowpen Creek         CC-327274-B         -87.85048144         30.49901503           Cowpen Creek         CC-268723-A         -87.8747749         30.50017843           Cowpen Creek         CC-268727-A         -87.87479214         30.50010089           Cowpen Creek         CC-278344-B         -87.875782015         30.500478952           Cowpen Creek         CC-214601-B         -87.875781902         30.49960698           Cowpen Creek         CC-279132-C         -87.87507832         30.51476108           Cowpen Creek         CC-279132-D         -87.8753154         30.51456791           Cowpen Creek         CC-279132-E         -87.87539191         30.51443688           Cowpen Creek         CC-279132-B         -87.87539191         30.51543936           Cowpen Creek         CC-279170-A         -87.87969609         30.5154938           Cowpen Creek         CC-279079-D         -87.87969609         30.51785795           Cowpen Creek         CC-279079-D         -87.87969609         30.51788909           Cowpen Creek         CC-14821-E         -87.88095756         30.51856814		Cowpen Creek	CC-243423-A	-87.85496467	30.49818576
Cowpen Creek         CC-279808-B         -87.84766111         30.49857722           Cowpen Creek         CC-327274-B         -87.85048144         30.49901503           Cowpen Creek         CC-227043-A         -87.87800538         30.50153433           Cowpen Creek         CC-268723-A         -87.87477914         30.50047894           Cowpen Creek         CC-268727-A         -87.874779214         30.50010089           Cowpen Creek         CC-214601-A         -87.87781902         30.50858313           Cowpen Creek         CC-214601-B         -87.87781902         30.4998552           Cowpen Creek         CC-279132-C         -87.875507832         30.51476108           Cowpen Creek         CC-279132-C         -87.8753154         30.51456791           Cowpen Creek         CC-279132-C         -87.87539191         30.51443688           Cowpen Creek         CC-279170-A         -87.87566093         30.5154936           Cowpen Creek         CC-279079-D         -87.87566093         30.51785795           Cowpen Creek         CC-279079-D         -87.87968289         30.51785995           Cowpen Creek         CC-279079-C         -87.87968289         30.51785909           Cowpen Creek         CC-14821-E         -87.88095834         30.5185003		Cowpen Creek	CC-243423-B	-87.85416741	30.4981994
Cowpen Creek         CC-327274-B         -87.85048144         30.49901503           Cowpen Creek         CC-227043-A         -87.87800538         30.50153433           Cowpen Creek         CC-268727-A         -87.8747749         30.50047894           Cowpen Creek         CC-268727-A         -87.873479214         30.50010089           Cowpen Creek         CC-278344-B         -87.86371926         30.50858313           Cowpen Creek         CC-214601-B         -87.875782015         30.4998552           Cowpen Creek         CC-279132-C         -87.87507832         30.51476108           Cowpen Creek         CC-279132-C         -87.8753154         30.51476108           Cowpen Creek         CC-279132-C         -87.87539191         30.51476108           Cowpen Creek         CC-279132-C         -87.87539191         30.514456791           Cowpen Creek         CC-279170-A         -87.87403104         30.51543936           Cowpen Creek         CC-279079-D         -87.87966093         30.51785795           Cowpen Creek         CC-279079-D         -87.87968289         30.51788909           Cowpen Creek         CC-14821-E         -87.88095834         30.51856814           Cowpen Creek         CC-14821-E         -87.88095834         30.51846255		Cowpen Creek	CC-279712-C	-87.85221041	30.49691607
Cowpen Creek         CC-227043-A         -87.87800538         30.50153433           Cowpen Creek         CC-268723-A         -87.8747749         30.50047894           Cowpen Creek         CC-268727-A         -87.87479214         30.50010089           Cowpen Creek         CC-278344-B         -87.867371926         30.50858313           Cowpen Creek         CC-214601-B         -87.87781902         30.49960698           Cowpen Creek         CC-279132-C         -87.87507832         30.51476108           Cowpen Creek         CC-279132-D         -87.8753154         30.51456791           Cowpen Creek         CC-279132-E         -87.87539191         30.51443688           Cowpen Creek         CC-279170-A         -87.87403104         30.51543936           Cowpen Creek         CC-279170-A         -87.87566093         30.51549385           Cowpen Creek         CC-279079-D         -87.8796909         30.51785795           Cowpen Creek         CC-279079-D         -87.87968289         30.51788909           Cowpen Creek         CC-14821-E         -87.88095534         30.51845814           Cowpen Creek         CC-14821-E         -87.88095756          30.51846255           Cowpen Creek         CC-279054-C         -87.88209312         30.519482		Cowpen Creek	CC-279808-B	-87.84766111	30.49857722
Cowpen Creek         CC-268723-A         -87.8747749         30.50047894           Cowpen Creek         CC-268727-A         -87.87479214         30.50010089           Cowpen Creek         CC-278344-B         -87.86371926         30.50858313           Cowpen Creek         CC-214601-B         -87.87782015         30.4998552           Cowpen Creek         CC-279132-C         -87.87507832         30.51476108           Cowpen Creek         CC-279132-D         -87.8753154         30.51456791           Cowpen Creek         CC-279170-A         -87.8753154         30.5143688           Cowpen Creek         CC-279170-A         -87.87566093         30.51543936           Cowpen Creek         CC-279979-D         -87.87966093         30.51785795           Cowpen Creek         CC-279079-D         -87.87968289         30.51785795           Cowpen Creek         CC-279079-C         -87.87968289         30.51785995           Cowpen Creek         CC-14821-E         -87.88095834         30.5185093           Cowpen Creek         CC-14821-B         -87.88095834         30.5184691           Cowpen Creek         CC-279079-A         -87.88092121         30.51846255           Cowpen Creek         CC-279054-B         -87.88223447         30.5192482		Cowpen Creek	CC-327274-B	-87.85048144	30.49901503
Cowpen Creek         CC-268727-A         -87.87479214         30.50010089           Cowpen Creek         CC-278344-B         -87.86371926         30.50858313           Cowpen Creek         CC-214601-A         -87.87782015         30.4998552           Cowpen Creek         CC-214601-B         -87.87781902         30.49986698           Cowpen Creek         CC-279132-C         -87.87507832         30.51476108           Cowpen Creek         CC-279132-D         -87.8753154         30.51456791           Cowpen Creek         CC-279132-E         -87.87531919         30.51456791           Cowpen Creek         CC-279170-A         -87.87403104         30.51543936           Cowpen Creek         CC-279079-D         -87.8796609         30.51788936           Cowpen Creek         CC-279079-D         -87.87968289         30.51788909           Cowpen Creek         CC-14821-E         -87.88095834         30.51835003           Cowpen Creek         CC-14821-E         -87.88095121         30.51846255           Cowpen Creek         CC-14821-C         -87.8802121         30.51846255           Cowpen Creek         CC-279079-A         -87.88203532         30.5192482           Cowpen Creek         CC-279054-B         -87.88223447         30.51927412 <td></td> <td>Cowpen Creek</td> <td>CC-227043-A</td> <td>-87.87800538</td> <td>30.50153433</td>		Cowpen Creek	CC-227043-A	-87.87800538	30.50153433
Cowpen Creek         CC-278344-B         -87.86371926         30.50858313           Cowpen Creek         CC-214601-A         -87.87782015         30.4998552           Cowpen Creek         CC-214601-B         -87.87781902         30.4998552           Cowpen Creek         CC-279132-C         -87.87507832         30.51476108           Cowpen Creek         CC-279132-D         -87.8753154         30.51456791           Cowpen Creek         CC-279170-A         -87.8753191         30.51443688           Cowpen Creek         CC-279170-A         -87.8756093         30.51543936           Cowpen Creek         CC-279079-D         -87.87969609         30.51785795           Cowpen Creek         CC-279079-D         -87.87968289         30.51785795           Cowpen Creek         CC-14821-E         -87.88095834         30.51835003           Cowpen Creek         CC-14821-B         -87.88095834         30.51846814           Cowpen Creek         CC-14821-B         -87.88095121         30.51846255           Cowpen Creek         CC-279079-A         -87.88203532         30.5192482           Cowpen Creek         CC-279054-B         -87.88223347         30.5192482           Cowpen Creek         CC-279054-B         -87.88223532         30.5192482		Cowpen Creek	CC-268723-A	-87.8747749	30.50047894
Cowpen Creek         CC-214601-A         -87.87782015         30.4998552           Cowpen Creek         CC-214601-B         -87.87781902         30.49960698           Cowpen Creek         CC-279132-C         -87.87507832         30.51476108           Cowpen Creek         CC-279132-D         -87.8753154         30.51456791           Cowpen Creek         CC-279170-A         -87.87539191         30.51543936           Cowpen Creek         CC-299559-A         -87.87966093         30.51543936           Cowpen Creek         CC-279079-D         -87.87968289         30.51785795           Cowpen Creek         CC-279079-C         -87.87968289         30.51788909           Cowpen Creek         CC-14821-E         -87.88095834         30.51835003           Cowpen Creek         CC-14821-E         -87.88095756         30.51846095           Cowpen Creek         CC-14821-E         -87.88095756         30.51846095           Cowpen Creek         CC-14821-E         -87.88095156         30.51846095           Cowpen Creek         CC-279079-A         -87.88095156         30.51846025           Cowpen Creek         CC-279054-C         -87.88203532         30.5192482           Cowpen Creek         CC-279054-C         -87.88203532         30.5192482 <td></td> <td>Cowpen Creek</td> <td>CC-268727-A</td> <td>-87.87479214</td> <td>30.50010089</td>		Cowpen Creek	CC-268727-A	-87.87479214	30.50010089
Cowpen Creek         CC-214601-B         -87.87781902         30.49960698           Cowpen Creek         CC-279132-C         -87.87507832         30.51476108           Cowpen Creek         CC-279132-D         -87.8753154         30.51456791           Cowpen Creek         CC-279170-A         -87.8753191         30.51443688           Cowpen Creek         CC-279170-A         -87.87566093         30.5154936           Cowpen Creek         CC-279079-D         -87.87969609         30.51785795           Cowpen Creek         CC-279079-D         -87.87969609         30.51785795           Cowpen Creek         CC-279079-C         -87.87968289         30.51785795           Cowpen Creek         CC-14821-E         -87.88095834         30.51835003           Cowpen Creek         CC-14821-B         -87.88095834         30.51835003           Cowpen Creek         CC-14821-B         -87.88095121         30.51846035           Cowpen Creek         CC-279079-A         -87.88095121         30.51846255           Cowpen Creek         CC-279054-C         -87.88203532         30.5192482           Cowpen Creek         CC-279054-B         -87.88223447         30.51927412           Cowpen Creek         CC-273055-A         -87.883293502         30.52093621     <		Cowpen Creek	CC-278344-B	-87.86371926	30.50858313
Cowpen Creek         CC-279132-D         -87.87507832         30.51476108           Cowpen Creek         CC-279132-D         -87.8753154         30.51456791           Cowpen Creek         CC-279132-E         -87.8753154         30.51443688           Cowpen Creek         CC-279170-A         -87.87539191         30.51443688           Cowpen Creek         CC-299959-A         -87.87566093         30.51509952           Cowpen Creek         CC-279079-D         -87.87969609         30.51785795           Cowpen Creek         CC-279079-C         -87.87968289         30.51788909           Cowpen Creek         CC-14821-E         -87.88095834         30.51856814           Cowpen Creek         CC-14821-B         -87.88095156         30.51856814           Cowpen Creek         CC-14821-C         -87.88095121         30.51856814           Cowpen Creek         CC-279079-A         -87.88095121         30.51846255           Cowpen Creek         CC-279054-C         -87.88203532         30.5192482           Cowpen Creek         CC-279054-B         -87.88223447         30.51927412           Cowpen Creek         CC-279054-B         -87.88223447         30.51927412           Cowpen Creek         CC-2737655-A         -87.88329317         30.52292285		Cowpen Creek	CC-214601-A	-87.87782015	30.4998552
Cowpen Creek         CC-279132-D         -87.8753154         30.51456791           Cowpen Creek         CC-279132-E         -87.87539191         30.51443688           Cowpen Creek         CC-279170-A         -87.87403104         30.51543936           Cowpen Creek         CC-299959-A         -87.87566093         30.51509952           Cowpen Creek         CC-279079-D         -87.87968099         30.51785795           Cowpen Creek         CC-279079-C         -87.88968289         30.51788909           Cowpen Creek         CC-14821-E         -87.88095834         30.51835003           Cowpen Creek         CC-14821-B         -87.88095834         30.5183603           Cowpen Creek         CC-14821-C         -87.88095121         30.51846098           Cowpen Creek         CC-279079-A         -87.88203532         30.51846098           Cowpen Creek         CC-279054-C         -87.88203532         30.5192482           Cowpen Creek         CC-279054-C         -87.88223447         30.51927412           Cowpen Creek         CC-279054-C         -87.8822347         30.51927412           Cowpen Creek         CC-279054-C         -87.8832863         30.51927412           Cowpen Creek         CC-277054-A         -87.883229317         30.52026009 </td <td></td> <td>Cowpen Creek</td> <td>CC-214601-B</td> <td>-87.87781902</td> <td>30.49960698</td>		Cowpen Creek	CC-214601-B	-87.87781902	30.49960698
Cowpen Creek         CC-279132-E         -87.87539191         30.51443688           Cowpen Creek         CC-279170-A         -87.87403104         30.51543936           Cowpen Creek         CC-299959-A         -87.87566093         30.51509952           Cowpen Creek         CC-279079-D         -87.87969609         30.51785795           Cowpen Creek         CC-279079-C         -87.87968289         30.51788909           Cowpen Creek         CC-14821-E         -87.88095834         30.51835003           Cowpen Creek         CC-14821-B         -87.88095834         30.51835003           Cowpen Creek         CC-14821-C         -87.88095121         30.51849098           Cowpen Creek         CC-279079-A         -87.88093121         30.51849098           Cowpen Creek         CC-279054-C         -87.88203532         30.51924825           Cowpen Creek         CC-279054-C         -87.88203532         30.51924825           Cowpen Creek         CC-279054-C         -87.88223447         30.5192482           Cowpen Creek         CC-279054-B         -87.8823331         30.52036621           Cowpen Creek         CC-237655-A         -87.88329317         30.52203997           Cowpen Creek         CC-207765-A         -87.88329317         30.52262009		Cowpen Creek		-87.87507832	30.51476108
Cowpen Creek         CC-279170-A         -87.87403104         30.51543936           Cowpen Creek         CC-299959-A         -87.87566093         30.51509952           Cowpen Creek         CC-279079-D         -87.879696099         30.51785795           Cowpen Creek         CC-279079-C         -87.87968289         30.51788909           Cowpen Creek         CC-14821-E         -87.88095834         30.51835003           Cowpen Creek         CC-14821-B         -87.88095756         30.51849098           Cowpen Creek         CC-14821-C         -87.88092121         30.51849098           Cowpen Creek         CC-279079-A         -87.88203532         30.51846255           Cowpen Creek         CC-279054-C         -87.88203532         30.5192482           Cowpen Creek         CC-279054-B         -87.88223447         30.5192482           Cowpen Creek         CC-279054-B         -87.8832863         30.52036621           Cowpen Creek         CC-12769-C         -87.8832863         30.52036621           Cowpen Creek         CC-202707-A         -87.88394502         30.52203997           Cowpen Creek         CC-64946-A         -87.8829317         30.5220285           Cowpen Creek         CC-64946-A         -87.88202718         30.52262009		Cowpen Creek	CC-279132-D	-87.8753154	30,51456791
Cowpen Creek         CC-299959-A         -87.87566093         30.51509952           Cowpen Creek         CC-279079-D         -87.87969609         30.51785795           Cowpen Creek         CC-279079-C         -87.87968289         30.51788909           Cowpen Creek         CC-14821-E         -87.88095834         30.51835003           Cowpen Creek         CC-14821-B         -87.88095756         30.51846908           Cowpen Creek         CC-279079-A         -87.88056354         30.51846255           Cowpen Creek         CC-279054-C         -87.88203532         30.5192482           Cowpen Creek         CC-279054-B         -87.88223447         30.51927412           Cowpen Creek         CC-279054-B         -87.8832863         30.52036621           Cowpen Creek         CC-237655-A         -87.883299317         30.52203997           Cowpen Creek         CC-237655-A         -87.88394502         30.52262009           Cowpen Creek         CC-64946-A         -87.88402758         30.52262009           Cowpen Creek         CC-222199-A         -87.88279735         30.5219535           Cowpen Creek         CC-77695-A         -87.87311693         30.51651576           Cowpen Creek         CC-77693-A         -87.87073097         30.51752957 </td <td></td> <td></td> <td>CC-279132-E</td> <td>-87.87539191</td> <td>30.51443688</td>			CC-279132-E	-87.87539191	30.51443688
Cowpen Creek         CC-279079-D         -87.87969609         30.51785795           Cowpen Creek         CC-279079-C         -87.87968289         30.51788909           Cowpen Creek         CC-14821-E         -87.88095834         30.51835003           Cowpen Creek         CC-14821-B         -87.88095756          30.51856814           Cowpen Creek         CC-14821-C         -87.88092121         30.51849098           Cowpen Creek         CC-279079-A         -87.88056354         30.51846255           Cowpen Creek         CC-279054-C         -87.88203532         30.5192482           Cowpen Creek         CC-279054-B         -87.88223447         30.51927412           Cowpen Creek         CC-12769-C         -87.8832863         30.51927412           Cowpen Creek         CC-12769-C         -87.8832863         30.52036621           Cowpen Creek         CC-202707-A         -87.883299317         30.52203997           Cowpen Creek         CC-64946-A         -87.88402758         30.522292285           Cowpen Creek         CC-64946-A         -87.88402758         30.52262009           Cowpen Creek         CC-764946-A         -87.88279735         30.52199535           Cowpen Creek         CC-77695-A         -87.87311693         30.51651576 <td></td> <td>Cowpen Creek</td> <td>CC-279170-A</td> <td>-87.87403104</td> <td>30.51543936</td>		Cowpen Creek	CC-279170-A	-87.87403104	30.51543936
Cowpen Creek         CC-279079-C         -87.87968289         30.51788909           Cowpen Creek         CC-14821-E         -87.88095834         30.51835003           Cowpen Creek         CC-14821-B         -87.88095756         30.51856814           Cowpen Creek         CC-14821-C         -87.88095756         30.51849098           Cowpen Creek         CC-279079-A         -87.88056354         30.51846255           Cowpen Creek         CC-279054-C         -87.88203532         30.5192482           Cowpen Creek         CC-279054-B         -87.88223447         30.5192482           Cowpen Creek         CC-279054-B         -87.88223447         30.51927412           Cowpen Creek         CC-12769-C         -87.8832863         30.52036621           Cowpen Creek         CC-237655-A         -87.88299317         30.52203997           Cowpen Creek         CC-202707-A         -87.88394502         30.522292285           Cowpen Creek         CC-64946-A         -87.88402758         30.52292285           Cowpen Creek         CC-222199-A         -87.88027935         30.5219535           Cowpen Creek         CC-84755-B         -87.88027935         30.5219535           Cowpen Creek         CC-77695-A         -87.87243152         30.51651576	1	Cowpen Creek	CC-299959-A	-87.87566093	30.51509952
Cowpen Creek         CC-14821-E         -87.88095834         30.51835003           Cowpen Creek         CC-14821-B         -87.88095756          30.51856814           Cowpen Creek         CC-14821-C         -87.88095756          30.51849098           Cowpen Creek         CC-279079-A         -87.88056354         30.51846255           Cowpen Creek         CC-279054-C         -87.88203532         30.5192482           Cowpen Creek         CC-279054-B         -87.88223447         30.51927412           Cowpen Creek         CC-12769-C         -87.8832863         30.52036621           Cowpen Creek         CC-237655-A         -87.88299317         30.52203997           Cowpen Creek         CC-202707-A         -87.88394502         30.52292285           Cowpen Creek         CC-64946-A         -87.88402758         30.52292285           Cowpen Creek         CC-64946-A         -87.88402758         30.52292285           Cowpen Creek         CC-222199-A         -87.88279735         30.52292285           Cowpen Creek         CC-34755-B         -87.88002718         30.52292285           Cowpen Creek         CC-77695-A         -87.87311693         30.51515756           Cowpen Creek         CC-77695-A         -87.87311693         30.51752957 <td></td> <td>Cowpen Creek</td> <td>CC-279079-D</td> <td>-87.87969609</td> <td>30.51785795</td>		Cowpen Creek	CC-279079-D	-87.87969609	30.51785795
Cowpen Creek         CC-14821-B         -87.88095756          30.51856814           Cowpen Creek         CC-14821-C         -87.88092121         30.51849098           Cowpen Creek         CC-279079-A         -87.88056354         30.51846255           Cowpen Creek         CC-279054-C         -87.88203532         30.5192482           Cowpen Creek         CC-279054-B         -87.88223447         30.51927412           Cowpen Creek         CC-12769-C         -87.8832863         30.52036621           Cowpen Creek         CC-237655-A         -87.88299317         30.52203997           Cowpen Creek         CC-202707-A         -87.88394502         30.52292285           Cowpen Creek         CC-64946-A         -87.88402758         30.52262009           Cowpen Creek         CC-222199-A         -87.88279735         30.52199535           Cowpen Creek         CC-84755-B         -87.88002718         30.52084604           Cowpen Creek         CC-77695-A         -87.87311693         30.51651576           Cowpen Creek         CC-77693-A         -87.87243152         30.51753791           Cowpen Creek         CC-78277-B         -87.80352365         30.51752957           Cowpen Creek         CC-104762-A         -87.86352365         30.51655346 <td></td> <td>Cowpen Creek</td> <td>CC-279079-C</td> <td>-87.87968289</td> <td>30.51788909</td>		Cowpen Creek	CC-279079-C	-87.87968289	30.51788909
Cowpen Creek         CC-14821-C         -87.88092121         30.51849098           Cowpen Creek         CC-279079-A         -87.88056354         30.51846255           Cowpen Creek         CC-279054-C         -87.88203532         30.5192482           Cowpen Creek         CC-279054-B         -87.88223447         30.51927412           Cowpen Creek         CC-12769-C         -87.8832863         30.52036621           Cowpen Creek         CC-237655-A         -87.88299317         30.52203997           Cowpen Creek         CC-202707-A         -87.88394502         30.52203997           Cowpen Creek         CC-64946-A         -87.88402758         30.52262009           Cowpen Creek         CC-64946-A         -87.88279735         30.52199535           Cowpen Creek         CC-222199-A         -87.88002718         30.52084604           Cowpen Creek         CC-77695-A         -87.87311693         30.51651576           Cowpen Creek         CC-77693-A         -87.87243152         30.51753791           Cowpen Creek         CC-78277-B         -87.86352365         30.51752957           Cowpen Creek         CC-104762-B         -87.86352365         30.51522462           Cowpen Creek         CC-207066-A         -87.863522822         30.51463912 <td></td> <td></td> <td>CC-14821-E</td> <td>-87.88095834</td> <td>30.51835003</td>			CC-14821-E	-87.88095834	30.51835003
Cowpen Creek         CC-279079-A         -87.88056354         30.51846255           Cowpen Creek         CC-279054-C         -87.88203532         30.5192482           Cowpen Creek         CC-279054-B         -87.88223447         30.51927412           Cowpen Creek         CC-12769-C         -87.8832863         30.52036621           Cowpen Creek         CC-237655-A         -87.88299317         30.52203997           Cowpen Creek         CC-202707-A         -87.88394502         30.52292285           Cowpen Creek         CC-64946-A         -87.88402758         30.52262009           Cowpen Creek         CC-222199-A         -87.88279735         30.52199535           Cowpen Creek         CC-34755-B         -87.88002718         30.52084604           Cowpen Creek         CC-77695-A         -87.87311693         30.51651576           Cowpen Creek         CC-77693-A         -87.87243152         30.51752957           Cowpen Creek         CC-78277-B         -87.87073097         30.51752957           Cowpen Creek         CC-104762-B         -87.86352365         30.51522462           Cowpen Creek         CC-207066-A         -87.8563585         30.51655346           Cowpen Creek         CC-261947-A         -87.85615685         30.51655346 <td></td> <td>Cowpen Creek</td> <td>CC-14821-B</td> <td>-87.88095756</td> <td>30.51856814</td>		Cowpen Creek	CC-14821-B	-87.88095756	30.51856814
Cowpen Creek         CC-279054-C         -87.88203532         30.5192482           Cowpen Creek         CC-279054-B         -87.88223447         30.51927412           Cowpen Creek         CC-12769-C         -87.8832863         30.52036621           Cowpen Creek         CC-237655-A         -87.88299317         30.52203997           Cowpen Creek         CC-202707-A         -87.88394502         30.52292285           Cowpen Creek         CC-64946-A         -87.88402758         30.52262009           Cowpen Creek         CC-222199-A         -87.88279735         30.52199535           Cowpen Creek         CC-84755-B         -87.88002718         30.52084604           Cowpen Creek         CC-77695-A         -87.87311693         30.51651576           Cowpen Creek         CC-77693-A         -87.87243152         30.51753791           Cowpen Creek         CC-78277-B         -87.87073097         30.51752957           Cowpen Creek         CC-104762-B         -87.86352365         30.51522462           Cowpen Creek         CC-207066-A         -87.86059508         30.51057038           Cowpen Creek         CC-261947-A         -87.85615685         30.51655346           Cowpen Creek         CC-248388-A         -87.85382107         30.51961826 <td></td> <td>Cowpen Creek</td> <td>CC-14821-C</td> <td>-87.88092121</td> <td>30.51849098</td>		Cowpen Creek	CC-14821-C	-87.88092121	30.51849098
Cowpen Creek         CC-279054-B         -87.88223447         30.51927412           Cowpen Creek         CC-12769-C         -87.8832863         30.52036621           Cowpen Creek         CC-237655-A         -87.88299317         30.52203997           Cowpen Creek         CC-202707-A         -87.88394502         30.52292285           Cowpen Creek         CC-64946-A         -87.88402758         30.52262009           Cowpen Creek         CC-222199-A         -87.88279735         30.52199535           Cowpen Creek         CC-84755-B         -87.88002718         30.52084604           Cowpen Creek         CC-77695-A         -87.87311693         30.51651576           Cowpen Creek         CC-77693-A         -87.87243152         30.51753791           Cowpen Creek         CC-78277-B         -87.87073097         30.51752957           Cowpen Creek         CC-104762-B         -87.86352365         30.51522462           Cowpen Creek         CC-207066-A         -87.86059508         30.51057038           Cowpen Creek         CC-261947-A         -87.85615685         30.51057038           Cowpen Creek         CC-248388-A         -87.85425586         30.5195346           Cowpen Creek         CC-248388-A         -87.85382107         30.51961826 <td></td> <td>Cowpen Creek</td> <td>CC-279079-A</td> <td>-87.88056354</td> <td>30.51846255</td>		Cowpen Creek	CC-279079-A	-87.88056354	30.51846255
Cowpen Creek         CC-12769-C         -87.8832863         30.52036621           Cowpen Creek         CC-237655-A         -87.88299317         30.52203997           Cowpen Creek         CC-202707-A         -87.88394502         30.52292285           Cowpen Creek         CC-64946-A         -87.88402758         30.52262009           Cowpen Creek         CC-222199-A         -87.88279735         30.52199535           Cowpen Creek         CC-84755-B         -87.88002718         30.52084604           Cowpen Creek         CC-77695-A         -87.87311693         30.51651576           Cowpen Creek         CC-77693-A         -87.87243152         30.51753791           Cowpen Creek         CC-78277-B         -87.86352365         30.51752957           Cowpen Creek         CC-104762-B         -87.86352365         30.51522462           Cowpen Creek         CC-104762-A         -87.86322822         30.51463912           Cowpen Creek         CC-207066-A         -87.86059508         30.51057038           Cowpen Creek         CC-261947-A         -87.85615685         30.51655346           Cowpen Creek         CC-248388-A         -87.85425586         30.51913045           Cowpen Creek         CC-310693-A         -87.85649737         30.52177183 </td <td></td> <td>Cowpen Creek</td> <td>CC-279054-C</td> <td>-87.88203532</td> <td>30.5192482</td>		Cowpen Creek	CC-279054-C	-87.88203532	30.5192482
Cowpen Creek         CC-237655-A         -87.88299317         30.52203997           Cowpen Creek         CC-202707-A         -87.88394502         30.52292285           Cowpen Creek         CC-64946-A         -87.88402758         30.52262009           Cowpen Creek         CC-222199-A         -87.88279735         30.52199535           Cowpen Creek         CC-84755-B         -87.88002718         30.52084604           Cowpen Creek         CC-77695-A         -87.87311693         30.51651576           Cowpen Creek         CC-77693-A         -87.87243152         30.51753791           Cowpen Creek         CC-78277-B         -87.87073097         30.51752957           Cowpen Creek         CC-104762-B         -87.86352365         30.51522462           Cowpen Creek         CC-104762-A         -87.86322822         30.51463912           Cowpen Creek         CC-207066-A         -87.85615685         30.51057038           Cowpen Creek         CC-261947-A         -87.85615685         30.51655346           Cowpen Creek         CC-248388-A         -87.85425586         30.51913045           Cowpen Creek         CC-310693-A         -87.85649737         30.52177183           Cowpen Creek         CC-254840-A         -87.86012738         30.52005912				-87.88223447	30.51927412
Cowpen Creek         CC-202707-A         -87.88394502         30.52292285           Cowpen Creek         CC-64946-A         -87.88402758         30.52262009           Cowpen Creek         CC-222199-A         -87.88279735         30.52199535           Cowpen Creek         CC-84755-B         -87.88002718         30.52084604           Cowpen Creek         CC-77695-A         -87.87311693         30.51651576           Cowpen Creek         CC-77693-A         -87.87243152         30.51753791           Cowpen Creek         CC-78277-B         -87.87073097         30.51752957           Cowpen Creek         CC-104762-B         -87.86352365         30.51522462           Cowpen Creek         CC-104762-A         -87.86322822         30.51463912           Cowpen Creek         CC-207066-A         -87.86059508         30.51057038           Cowpen Creek         CC-261947-A         -87.85615685         30.51655346           Cowpen Creek         CC-248388-A         -87.85425586         30.51913045           Cowpen Creek         CC-310693-A         -87.85649737         30.52177183           Cowpen Creek         CC-254840-A         -87.86012738         30.52005912           Cowpen Creek         CC-237634-A         -87.84387758         30.51474715		Cowpen Creek	CC-12769-C	-87.8832863	30.52036621
Cowpen Creek         CC-64946-A         -87.88402758         30.52262009           Cowpen Creek         CC-222199-A         -87.88279735         30.52199535           Cowpen Creek         CC-84755-B         -87.88002718         30.52084604           Cowpen Creek         CC-77695-A         -87.87311693         30.51651576           Cowpen Creek         CC-77693-A         -87.87243152         30.51753791           Cowpen Creek         CC-78277-B         -87.87073097         30.51752957           Cowpen Creek         CC-104762-B         -87.86352365         30.51522462           Cowpen Creek         CC-104762-A         -87.86322822         30.51463912           Cowpen Creek         CC-207066-A         -87.86059508         30.51057038           Cowpen Creek         CC-261947-A         -87.85615685         30.51655346           Cowpen Creek         CC-248388-A         -87.85425586         30.51913045           Cowpen Creek         CC-310693-A         -87.85649737         30.52177183           Cowpen Creek         CC-254840-A         -87.86012738         30.52005912           Cowpen Creek         CC-237634-A         -87.86012738         30.51474715		Cowpen Creek	CC-237655-A	-87.88299317	30.52203997
Cowpen Creek         CC-222199-A         -87.88279735         30.52199535           Cowpen Creek         CC-84755-B         -87.88002718         30.52084604           Cowpen Creek         CC-77695-A         -87.87311693         30.51651576           Cowpen Creek         CC-77693-A         -87.87243152         30.51753791           Cowpen Creek         CC-78277-B         -87.87073097         30.51752957           Cowpen Creek         CC-104762-B         -87.86352365         30.51522462           Cowpen Creek         CC-104762-A         -87.86322822         30.51463912           Cowpen Creek         CC-207066-A         -87.86059508         30.51057038           Cowpen Creek         CC-261947-A         -87.85615685         30.51655346           Cowpen Creek         CC-248388-A         -87.85425586         30.51913045           Cowpen Creek         CC-310693-A         -87.85382107         30.51961826           Cowpen Creek         CC-254840-A         -87.85649737         30.52177183           Cowpen Creek         CC-237634-A         -87.86012738         30.52005912           Cowpen Creek         CC-98967-C         -87.84387758         30.51474715		Cowpen Creek	CC-202707-A	-87.88394502	30.52292285
Cowpen Creek         CC-84755-B         -87.88002718         30.52084604           Cowpen Creek         CC-77695-A         -87.87311693         30.51651576           Cowpen Creek         CC-77693-A         -87.87243152         30.51753791           Cowpen Creek         CC-78277-B         -87.87073097         30.51752957           Cowpen Creek         CC-104762-B         -87.86352365         30.51522462           Cowpen Creek         CC-104762-A         -87.86322822         30.51463912           Cowpen Creek         CC-207066-A         -87.86059508         30.51057038           Cowpen Creek         CC-261947-A         -87.85615685         30.51655346           Cowpen Creek         CC-248388-A         -87.85425586         30.51913045           Cowpen Creek         CC-310693-A         -87.85382107         30.51961826           Cowpen Creek         CC-254840-A         -87.85649737         30.52177183           Cowpen Creek         CC-237634-A         -87.86012738         30.52005912           Cowpen Creek         CC-98967-C         -87.84387758         30.51474715		Cowpen Creek	CC-64946-A	-87.88402758	30.52262009
Cowpen Creek         CC-77695-A         -87.87311693         30.51651576           Cowpen Creek         CC-77693-A         -87.87243152         30.51753791           Cowpen Creek         CC-78277-B         -87.87073097         30.51752957           Cowpen Creek         CC-104762-B         -87.86352365         30.51522462           Cowpen Creek         CC-104762-A         -87.86322822         30.51463912           Cowpen Creek         CC-207066-A         -87.86059508         30.51057038           Cowpen Creek         CC-261947-A         -87.85615685         30.51655346           Cowpen Creek         CC-248388-A         -87.85425586         30.51913045           Cowpen Creek         CC-310693-A         -87.85382107         30.51961826           Cowpen Creek         CC-254840-A         -87.85649737         30.52177183           Cowpen Creek         CC-237634-A         -87.86012738         30.52005912           Cowpen Creek         CC-98967-C         -87.84387758         30.51474715			CC-222199-A	-87.88279735	30.52199535
Cowpen Creek         CC-77693-A         -87.87243152         30.51753791           Cowpen Creek         CC-78277-B         -87.87073097         30.51752957           Cowpen Creek         CC-104762-B         -87.86352365         30.51522462           Cowpen Creek         CC-104762-A         -87.86322822         30.51463912           Cowpen Creek         CC-207066-A         -87.86059508         30.51057038           Cowpen Creek         CC-261947-A         -87.85615685         30.51655346           Cowpen Creek         CC-248388-A         -87.85425586         30.51913045           Cowpen Creek         CC-310693-A         -87.85382107         30.51961826           Cowpen Creek         CC-254840-A         -87.85649737         30.52177183           Cowpen Creek         CC-237634-A         -87.86012738         30.52005912           Cowpen Creek         CC-98967-C         -87.84387758         30.51474715		Cowpen Creek	CC-84755-B	-87.88002718	30.52084604
Cowpen Creek         CC-78277-B         -87.87073097         30.51752957           Cowpen Creek         CC-104762-B         -87.86352365         30.51522462           Cowpen Creek         CC-104762-A         -87.863522822         30.51463912           Cowpen Creek         CC-207066-A         -87.86059508         30.51057038           Cowpen Creek         CC-261947-A         -87.85615685         30.51655346           Cowpen Creek         CC-248388-A         -87.85425586         30.51913045           Cowpen Creek         CC-310693-A         -87.85382107         30.51961826           Cowpen Creek         CC-254840-A         -87.85649737         30.52177183           Cowpen Creek         CC-237634-A         -87.86012738         30.52005912           Cowpen Creek         CC-98967-C         -87.84387758         30.51474715				-87.87311693	
Cowpen Creek         CC-104762-B         -87.86352365         30.51522462           Cowpen Creek         CC-104762-A         -87.86322822         30.51463912           Cowpen Creek         CC-207066-A         -87.86059508         30.51057038           Cowpen Creek         CC-261947-A         -87.85615685         30.51655346           Cowpen Creek         CC-248388-A         -87.85425586         30.51913045           Cowpen Creek         CC-310693-A         -87.85382107         30.51961826           Cowpen Creek         CC-254840-A         -87.85649737         30.52177183           Cowpen Creek         CC-237634-A         -87.86012738         30.52005912           Cowpen Creek         CC-98967-C         -87.84387758         30.51474715				-87.87243152	30.51753791
Cowpen Creek         CC-104762-A         -87.86322822         30.51463912           Cowpen Creek         CC-207066-A         -87.86059508         30.51057038           Cowpen Creek         CC-261947-A         -87.85615685         30.51655346           Cowpen Creek         CC-248388-A         -87.85425586         30.51913045           Cowpen Creek         CC-310693-A         -87.85382107         30.51961826           Cowpen Creek         CC-254840-A         -87.85649737         30.52177183           Cowpen Creek         CC-237634-A         -87.86012738         30.52005912           Cowpen Creek         CC-98967-C         -87.84387758         30.51474715			CC-78277-B	-87.87073097	30.51752957
Cowpen Creek         CC-207066-A         -87.86059508         30.51057038           Cowpen Creek         CC-261947-A         -87.85615685         30.51655346           Cowpen Creek         CC-248388-A         -87.85425586         30.51913045           Cowpen Creek         CC-310693-A         -87.85382107         30.51961826           Cowpen Creek         CC-254840-A         -87.85649737         30.52177183           Cowpen Creek         CC-237634-A         -87.86012738         30.52005912           Cowpen Creek         CC-98967-C         -87.84387758         30.51474715		Cowpen Creek	CC-104762-B	-87.86352365	30.51522462
Cowpen Creek         CC-261947-A         -87.85615685         30.51655346           Cowpen Creek         CC-248388-A         -87.85425586         30.51913045           Cowpen Creek         CC-310693-A         -87.85382107         30.51961826           Cowpen Creek         CC-254840-A         -87.85649737         30.52177183           Cowpen Creek         CC-237634-A         -87.86012738         30.52005912           Cowpen Creek         CC-98967-C         -87.84387758         30.51474715		Cowpen Creek	CC-104762-A	-87.86322822	30.51463912
Cowpen Creek         CC-248388-A         -87.85425586         30.51913045           Cowpen Creek         CC-310693-A         -87.85382107         30.51961826           Cowpen Creek         CC-254840-A         -87.85649737         30.52177183           Cowpen Creek         CC-237634-A         -87.86012738         30.52005912           Cowpen Creek         CC-98967-C         -87.84387758         30.51474715		Cowpen Creek	CC-207066-A	-87.86059508	30.51057038
Cowpen Creek         CC-310693-A         -87.85382107         30.51961826           Cowpen Creek         CC-254840-A         -87.85649737         30.52177183           Cowpen Creek         CC-237634-A         -87.86012738         30.52005912           Cowpen Creek         CC-98967-C         -87.84387758         30.51474715			CC-261947-A	-87.85615685	30.51655346
Cowpen Creek         CC-254840-A         -87.85649737         30.52177183           Cowpen Creek         CC-237634-A         -87.86012738         30.52005912           Cowpen Creek         CC-98967-C         -87.84387758         30.51474715			CC-248388-A	-87.85425586	30.51913045
Cowpen Creek         CC-237634-A         -87.86012738         30.52005912           Cowpen Creek         CC-98967-C         -87.84387758         30.51474715		Cowpen Creek	CC-310693-A	-87.85382107	30.51961826
Cowpen Creek CC-98967-C -87.84387758 30.51474715		Cowpen Creek	CC-254840-A	-87.85649737	30.52177183
		Cowpen Creek	CC-237634-A	-87.86012738	30.52005912
Cowpen Creek CC-98967-D -87.83985583 30.51235474			CC-98967-C	-87.84387758	30.51474715
		Cowpen Creek	CC-98967-D	-87.83985583	30.51235474

Cowpen Creek	CC-990-A	-87.87833252	30.50182656
Cowpen Creek	CC-278344-A	-87.8643127	30.50801279
Cowpen Creek	CC-279132-A	-87.87516539	30.51480871
Cowpen Creek	CC-279171-A	-87.87404551	30.51542801
Cowpen Creek	CC-14821-A	-87.88100427	30.518554
Cowpen Creek	CC-14821-D	-87.8810359	30.5183845
Cowpen Creek	CC-279054-A	-87.88229022	30.51945614
Cowpen Creek	CC-279052-A	-87.88273471	30.51993872
Cowpen Creek	CC-12769-D	-87.88326252	30.52011123
Cowpen Creek	CC-12769-B	-87.88322832	30.52088241
Cowpen Creek	CC-12769-A	-87.88278937	30.52179648
Cowpen Creek	CC-84755-A	-87.88018451	30.52091031
Cowpen Creek	CC-80794-A	-87.87281962	30.51635352
Cowpen Creek	CC-78277-A	-87.87147008	30.51751568
Cowpen Creek	CC-81238-A	-87.87332111	30.51576323
Cowpen Creek	CC-81239-A	-87.8731409	30.51559617
Cowpen Creek	CC-59963-A	-87.87001796	30.51581417
Cowpen Creek	CC-77707-A	-87.87025591	30.51649074
Cowpen Creek	CC-14603-B	-87.86933212	30.51757584
Cowpen Creek	CC-14603-A	-87.86927428	30.51743889
Cowpen Creek	CC-284332-A	-87.86503732	30.5177638
Cowpen Creek	CC-104546-A	-87.86453854	30.51686555
Cowpen Creek	CC-109756-A	-87.86282161	30.51847963
Cowpen Creek	CC-109763-A	-87.86224198	30.516617
Cowpen Creek	CC-98967-B	-87.84420934	30.51460299
Cowpen Creek	CC-98967-A	-87.84023317	30.51239102
Cowpen Creek	CC-84289-C	-87.83977034	30.51066465
Cowpen Creek	CC-84289-B	-87.83979384	30.51066739
Cowpen Creek	CC-84289-A	-87.83986636	30.51065743
Cowpen Creek	CC-294193-A	-87.83896619	30.51463269
Cowpen Creek	CC-294198-A	-87.83909762	30.51229952
Cowpen Creek	CC-110859-A	-87.83394289	30.50533956
Cowpen Creek	CC-327803-A	-87.83502913	30.5032316
Cowpen Creek	CC-84289-D	-87.83559294	30.50413766
Cowpen Creek	CC-84289-E	-87.83688641	30.50373833
Cowpen Creek	CC-84289-F	-87.83883498	30.50944834
Cowpen Creek	CC-84289-Q	-87.83677748	30.50266406
Cowpen Creek	CC-84289-R	-87.83622303	30.50265492
Cowpen Creek	CC-84289-G	-87.83916996	30.5059978
Cowpen Creek	CC-84289-H	-87.83802587	30.50589848
Cowpen Creek	CC-84289-I	-87.83820891	30.50630928
Cowpen Creek	CC-84289-J	-87.83925482	30.50604347
Cowpen Creek	CC-84289-K	-87.83941905	30.50727033
Cowpen Creek	CC-84289-L	-87.8394867	30.50703194

Cowpen Creek	CC-84289-M	-87.83944876	30.50772523
Cowpen Creek	CC-14695-B	-87.86192827	30.52540759
Cowpen Creek	CC-14695-C	-87.86258552	30.52604355
Cowpen Creek	CC-283515-A	-87.8346776	30.50555775
Cowpen Creek	CC-110859-B	-87.83382896	30.50535581
Cowpen Creek	CC-84289-N	-87.8355944	30.50338915
Cowpen Creek	CC-84289-0	-87.83671903	30.50387485
Cowpen Creek	CC-305037-A	-87.83412682	30.5043592
Cowpen Creek	CC-327801-A	-87.83421821	30.50383437
Cowpen Creek	CC-84289-P	-87.83829284	30.50577691
Cowpen Creek	CC-229560-A	-87.84776128	30.50947979
Cowpen Creek	CC-268925-A	-87.84753487	30.52536558
Cowpen Creek	CC-268925-B	-87.84689242	30.52516381
Cowpen Creek	CC-248110-A	-87.84705591	30.52589811
Cowpen Creek	CC-248110-B	-87.84718712	30.52584601
Cowpen Creek	CC-279482-A	-87.84781265	30.52767504
Cowpen Creek	CC-261658-A	-87.84041599	30.52374205
Cowpen Creek	CC-261675-A	-87.84022004	30.52374407
Cowpen Creek	CC-338513-A	-87.86591999	30.52792536
Cowpen Creek	CC-338513-B	-87.86562006	30.52808337
Cowpen Creek	CC-214601-B	-87.87780957	30,4997009
Cowpen Creek	CC-279132-E	-87.87526435	30.5149281
Cowpen Creek	CC-279132-D	-87.87534678	30.51453403
Cowpen Creek	CC-279132-A	-87.87531591	30.51460727
Cowpen Creek	CC-279132-C	-87.8751331	30.51478884
Cowpen Creek	CC-279132-B	-87.87512473	30.51481814
Cowpen Creek	CC-119199-A	-87.87829129	30.51013995
Cowpen Creek	CC-119223-A	-87.87825118	30.50994183
Cowpen Creek	CC-17291-A	-87.88160489	30.50940035
Cowpen Creek	CC-206958-B	-87.88169945	30.50940525
Cowpen Creek	CC-206958-C	-87.88171547	30.50937246
Cowpen Creek	CC-237577-B	-87.87787221	30.51332504
Cowpen Creek	CC-237577-A	-87.87785739	30.51393311
Cowpen Creek	CC-206851-B	-87.88116979	30.5128337
Cowpen Creek	CC-206851-A	-87.88107672	30.51293121
Cowpen Creek	CC-17291-C	-87.88321718	30.51103961
Cowpen Creek	CC-222826-B	-87.88456952	30.50732273
Cowpen Creek	CC-222826-A	-87.88218022	30.50731691
Cowpen Creek	CC-17292-A	-87.88495754	30.50763694
Cowpen Creek	CC-326096	-87.84987902	30.49317801
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Cowpen Creek	CC-240797-A	-87.84389108	30.51637569
Cowpen Creek	CC-229486-A	-87.84655811	30.51854816
Cowpen Creek	CC-240793-A	-87.84655495	30.51852527

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Cowpen Creek	CC-277045-A	-87.85706275	30.49686737
Cowpen Creek	CC-235662-B	-87.87703201	30.5041621
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Cowpen Creek	CC-81239-A	-87.87309993	30.51559253
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Cowpen Creek	CC-78277-A	-87.87073588	30.51754724
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Cowpen Creek	CC-279171-A	-87.87410327	30.51542873
Cowpen Creek	CC-279054-C	-87.88209523	30.51927224
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Cowpen Creek	CC-279079-C	-87.87967983	30.5179183
Cowpen Creek	CC-279079-D	-87.87938753	30.51787996
Cowpen Creek	CC-279571-A	-87.8712627	30.49725729
Cowpen Creek	CC-279571-B	-87.8712726	30.49727075
Cowpen Creek	CC-84289-C	-87.8397986	30.51072341
Cowpen Creek	CC-84289-B	-87.83981841	30.5106965
Cowpen Creek	CC-84289-A	-87.83980622	30.51067475
Fly Creek	FC-269191-A	-87.88188057	30.5610827
Fly Creek	FC-8625-A	-87.88234728	30.56806575
Fly Creek	FC-8625-B	-87.88239572	30.56984394
Fly Creek	FC-113559-A	-87.88775876	30.55058821
Fly Creek	FC-113559-B	-87.88778771	30.55055798
Fly Creek	FC-113559-C	-87.8877058	30.55066449
Fly Creek	FC-48571-A	-87.88780482	30.54856383
Fly Creek	FC-223698-A	-87.88808842	30.54901097
Fly Creek	FC-113563-A	-87.88799976	30.54928266
Fly Creek	FC-237528-A	-87.88681217	30.54630292
Fly Creek	FC-237527-A	-87.8868844	30.54566027
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	Fly Creek	FC-113588-A	-87.88788007	30.54577952
	Fly Creek	FC-10142-A	-87.89567158	30.55373837
	Fly Creek	FC-91042-A	-87.89698035	30.55334535
	Fly Creek	FC-91043-A	-87.89692409	30.55319983
	Fly Creek	FC-38191-A	-87.89763427	30.55326932
	Fly Creek	FC-47480-A	-87.89855367	30.55167126
	Fly Creek	FC-47480-B	-87.89839796	30.5519023
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	Fly Creek	FC-269191-C	-87.88197118	30.56105121
	Fly Creek	FC-269191-D	-87.88184418	30.56096411
	Fly Creek	FC-242626-A	-87.88222131	30.56492155
	Fly Creek	FC-242626-B	-87.8818311	30.56491719
	Fly Creek	FC-242626-C	-87.88198061	30.56485703
	Fly Creek	FC-229241-A	-87.88261178	30.56797323
	Fly Creek	FC-229235-A	-87.88279662	30.56985778
	Fly Creek	FC-91043-B	-87.89683196	30.55297534
1	Fly Creek	FC-38191-B	-87.89781379	30.55324629
	Fly Creek	FC-47480-C	-87.89853809	30.55161672
	Fly Creek	FC-18248-A	-87.89852452	30.54426275
	Fly Creek	FC-18248-B	-87.89853348	30.54426584
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	Fly Creek	FC-113552-B	-87.8906529	30.55235769
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	Fly Creek	FC-261870-A	-87.85629013	30,5428786
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Fly Creek	FC-304612-B	-87.89054023	30.55342139
Fly Creek	FC-304612-C	-87.89058156	30.55312471
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Fly Creek	FC-113574-B	-87.8876138	30.55231243
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Fly Creek	FC-113552-D	-87.89133243	30.55235283
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Fly Creek	FC-296793-B	-87.85849816	30.55310107
Fly Creek	FC-296792-A	-87.85468627	30.55415678
Fly Creek	FC-261881-A	-87.85591911	30.54286245
Fly Creek	FC-261870-B	-87.85648497	30.54291088
Fly Creek	FC-261847-A	-87.85277934	30.54278133
Fly Creek	FC-270297-A	-87.86321106	30.53691459
Fly Creek	FC-39503-A	-87.90022166	30.54391583
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Fly Creek	FC-23625-A	-87.89938757	30.54882386
Fly Creek	FC-43233-A	-87.89884528	30.55119773
Fly Creek	FC-64357-A	-87.90145982	30.54300394
Fly Creek	FC-64357-B	-87.90157379	30.54284406
Fly Creek	FC-205197-A	-87.90325478	30.54295432
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Fly Creek	FC-3113-A	-87.89177548	30.54300058
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Fly Creek	FC-36082-C	-87.89575386	30.546146
Fly Creek	FC-8609-A	-87.89843064	30.54738816
Fly Creek	FC-98872-A	-87.89873291	30.54831262
Fly Creek	FC-325843-A	-87.89875706	30.54912984
Fly Creek	FC-170039-A	-87.89855198	30.5495214
Fly Creek	FC-210005-A	-87.89871455	30.5497014
Fly Creek	FC-2362-A	-87.89421348	30.54392987
Fly Creek	FC-12789-B	-87.89073198	30.54185735
Fly Creek	FC-36082-B	-87.89528262	30.54570948
Fly Creek	FC-11759-A	-87.89595445	30.5462495
Fly Creek	FC-210063-A	-87.89682483	30.54667631
Fly Creek	FC-210063-B	-87.89711428	30.54679641
Fly Creek	FC-117888-A	-87.89741849	30.54702364
Fly Creek	FC-12789-A	-87.89070742	30.54175973
Fly Creek	113552-C	-87.89045704	30.55229731
Fly Creek	113552-B	-87.89056923	30.55228434
rly Creek	112225-P	-07.03030323	50.33228434

Fly Creek	113552-A	-87.89061918	30.55238329
Pensacola Worm Branch	PWB-261846-A	-87.85253954	30.54283572
Pensacola Worm Branch	PWB-270376-A	-87.85845118	30.54009873
Pensacola Worm Branch	PWB-281003-A	-87.85769456	30.53434639
Pensacola Worm Branch	PWB-281003-B	-87.85770027	30.53405999
Pensacola Worm Branch	PWB-14734-A	-87.84121615	30.53435986
Pensacola Worm Branch	PWB-293927-A	-87.83986346	30.53121716
Pensacola Worm Branch	PWB-14734-B	-87.84081665	30.53444236
Pensacola Worm Branch	PWB-293901-A	-87.84002848	30.53146635
Pensacola Worm Branch	PWB-269693-A	-87.84134019	30.52885349
Pensacola Worm Branch	PWB-269693-B	-87.84132674	30.52893026
Pensacola Worm Branch	PWB-269693-C	-87.84113128	30.52953375
Pensacola Worm Branch	PWB-280514-A	-87.83803657	30.52802537
Pensacola Worm Branch	PWB-261672-A	-87.8404601	30.52664829
Pensacola Worm Branch	PWB-293927-A	-87.84989261	30.4934102
Pensacola Worm Branch	PWB-293901-A	-87.83992297	30.53123703
Pensacola Worm Branch	PWB-TRACERY	-87.83774004	30.53607109
Pensacola Worm Branch	PWB-14734-A	-87.8405672	30.53395738
Pensacola Worm Branch	PWB-14734-B	-87.84117637	30.53430226
Pensacola Worm Branch	PWB-281003-B	-87.85758094	30.53397412
Pensacola Worm Branch	PWB-281003-A	-87.85758508	30.5339672
Pensacola Worm Branch	PWB-280514-A	-87.83808915	30.52795162
Pensacola Worm Branch	PWB-269693-A	-87.84120864	30.52868117
Pensacola Worm Branch	PWB-269693-B	-87.84138919	30.52872459
Pensacola Worm Branch	PWB-269693-C	-87.84130824	30.5289377
Pensacola Worm Branch	PWB-261672-A	-87.8402776	30.52668204
Pensacola Worm Branch	PWB-270376-A	-87.85881009	30.54058889
Pensacola Worm Branch	PWB-261846-A	-87.85236684	30.54296027
Point Clear Creek	PCC-106166-A	-87.88310124	30.49501019
Point Clear Creek	PCC-106166-B	-87.88397603	30.49536789
Point Clear Creek	PCC-106166-C	-87.88014795	30.49545752
Point Clear Creek	PCC-106166-D	-87.88090969	30.49495652
Point Clear Creek	PCC-106166-E	-87.88218557	30.49473086
Point Clear Creek	PCC-106166-F	-87.88310604	30.49498396
Point Clear Creek	PCC-106166-G	-87.88354992	30.49518024
Point Clear Creek	PCC-243166-A	-87.88190282	30.49421433
Point Clear Creek	PCC-243166-B	-87.88178112	30.49424651
Point Clear Creek	PCC-267180-B	-87.89020244	30.49536842
Point Clear Creek	PCC-267180-D	-87.8906836	30.49483531
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Point Clear Creek	PCC-327695-A	-87.89868631	30.48919886
Point Clear Creek	PCC-327695-B	-87.89852639	30.48926277
Point Clear Creek	PCC-327695-C	-87.89871043	30.48933373

Deint Class Coools	DCC 20244 A	07.01201520	20.40170765
Point Clear Creek	PCC-29244-A	-87.91291538	30.49179765
Point Clear Creek	PCC-6614-A	-87.91107323	30.49139956
Point Clear Creek	PCC-288984-A	-87.8919185 -87.89006562	30.498534
Point Clear Creek	PCC-267180-C		30.49529095
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Point Clear Creek	PCC-29244-C	-87.91247608	30.49128843
Point Clear Creek	PCC-29244-B	-87.91309214	30.49141104
Point Clear Creek	PCC-288984-B	-87.89207747	30.49840353
Point Clear Creek	PCC-202853-A	-87.91959081	30.49379972
Point Clear Creek	PCC-2432-A	-87.91963494	30.50755029
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Point Clear Creek	PCC-243166-B	-87.8817111	30.49434889
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Point Clear Creek	PCC-106166-A	-87.88309646	30.49507355
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Point Clear Creek	PCC-106166-D	-87.88099554	30.49497694
Point Clear Creek	PCC-106166-C	-87.88010865	30.49543053
Rock Creek	RC-235588-A	-87.88462374	30.58178297
Rock Creek	RC-114829-A	-87.88925901	30.57126367
Rock Creek	RC-114849-B	-87.89267376	30.56757298
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Rock Creek	RC-121260-A	-87.90036497	30.55783922
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Rock Creek	RC-29305-B	-87.89893944	30.55842335
Rock Creek	RC-75978-A	-87.89819588	30.56166839
Rock Creek	RC-75978-B	-87.89850223	30.56191189
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Rock Creek	RC-77980-A	-87.90235402	30.55516564
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Rock Creek	RC-72773-A	-87.89259265	30.5703413
Rock Creek	RC-114684-A	-87.89105913	30.56937042
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Rock Creek	RC-114801-A	-87.89110366	30.57266517
Rock Creek	RC-114859-A	-87.89136026	30.57455116
Rock Creek	RC-206067-A	-87.88892708	30.57956679
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Rock Creek	RC-206128-B	-87.8897296	30.57767029
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Rock Creek	RC-114872-B	-87.89031645	30.5762847
Rock Creek	RC-114872-C	-87.88860683	30.57704835
Rock Creek	RC-114872-D	-87.88876312	30.57702409
Rock Creek	RC-114872-E	-87.88888733	30.5769832
Rock Creek	RC-114872-F	-87.88835368	30.57733379
Rock Creek	RC-114872-G	-87.88829292	30.57799298
Rock Creek	RC-114872-H	-87.88749947	30.5790898
Rock Creek	RC-114872-I	-87.88661234	30.58000854
Rock Creek	RC-114872-J	-87.88659126	30.58072604
Rock Creek	RC-114860-A	-87.89202764	30.56817506
Rock Creek	RC-114849-C	-87.89255963	30.5680767
Rock Creek	RC-114849-E	-87.89258812	30.56818436
Rock Creek	RC-114852-A	-87.89255578	30.56861615
Rock Creek	RC-82582-B	-87.89180324	30.57314109
Rock Creek	RC-64117-A	-87.89163174	30.57187269
Rock Creek	RC-64116-A	-87.89166992	30.5721832
Rock Creek	RC-114855-A	-87.89236514	30.57030618
Rock Creek	RC-114856-B	-87.89072122	30.56942042
Rock Creek	RC-114856-C	-87.89093766	30.57181265
Rock Creek	RC-114859-B	-87.89127382	30.57466964
Rock Creek	RC-114859-C	-87.89146174	30.57459133
Rock Creek	RC-114859-D	-87.89153137	30.57459261
Rock Creek	RC-114859-E	-87.89157984	30.57456936
Rock Creek	RC-114872-L	-87.88701445	30.58166045
Rock Creek	RC-206128-C	-87.88952373	30.57904753
Rock Creek	RC-206148-A	-87.89045497	30.576831
Rock Creek	RC-114872-M	-87.89015295	30.57618039
Rock Creek	RC-114872-N	-87.88750114	30.57859272
Rock Creek	RC-114872-0	-87.88750012	30.57861975
Rock Creek	RC-114872-P	-87.88680855	30.58005849
Rock Creek	RC-114872-K	-87.88668655	30.58075165
Rock Creek	RC-114860-B	-87.89207943	30.56810247
Rock Creek	RC-114849-D	-87.89258953	30,56810861
Rock Creek	RC-114852-B	-87.89261804	30.56855719
Rock Creek	RC-224588	-87.89642492	30.56384608
Stack Gully	SG-64356-A	-87.90876259	30.52176671
Stack Gully	SG-64356-B	-87.90919055	30.52233205
Stack Gully	SG-64356-C	-87,90946355	30.52273976
Stack Gully	SG-64356-D	-87.9098412	30.52279627
Stack Gully	SG-1728-A	-87.90762603	30.52099722
Stack Gully	SG-12773-A	-87.90653874	30.52034349
Stack Gully	SG-19592-A	-87.90769878	30.52154622
Stack Gully	SG-64356-H	-87.90859821	30.52175373
Stack Gully	SG-64356-I	-87.90871207	30.5217297

Stack Gully	SG-64356-J	-87.90899017	30.52269977
Stack Gully	SG-64362-A	-87.91153767	30.52371865
Stack Gully	SG-64362-B	-87.91142221	30.52362086
Stack Gully	SG-64356-G	-87.91112178	30.52330738
Stack Gully	SG-64356-F	-87.91111736	30.52331944
Stack Gully	SG-64356-E	-87.91111029	30.52332784
Stack Gully	SG-12795-A	-87.91609907	30.51702308
Stack Gully	SG-12795-B	-87.91624632	30.51696356
Stack Gully	SG-12795-C	-87.91738926	30.51579258
Stack Gully	SG-64364-A	-87.91812855	30.51494895
Stack Gully	SG-64362-E	-87.91271149	30.52379706
Stack Gully	SG-64362-D	-87.91173054	30.52472675
Stack Gully	SG-64362-C	-87.91142701	30.5251701
Stack Gully	SG-12788-A	-87.9132312	30.52251582
Tatumville Gully	TG-61465-A	-87.92048678	30.51297475
Tatumville Gully	TG-61465-B	-87.9207969	30.51238049
Tatumville Gully	TG-64364-A	-87.91874408	30.51421774
Tatumville Gully	TG-11940-A	-87.91866388	30.51385003
Tatumville Gully	TG-61465-C	-87.92014169	30.51242489
Tatumville Gully	TG-34924-A	-87.91508034	30.51130575
Tatumville Gully	TG-34924-B	-87.91503904	30.51110737
Tatumville Gully	TG-43367-A	-87.91488084	30.51042022
Tatumville Gully	TG-31610-A	-87.9138535	30.50975637
Tatumville Gully	TG-31610-B	-87.91378268	30.50974914
Tatumville Gully	TG-4684-A	-87.91144747	30.5089877
Tatumville Gully	TG-83795-A	-87.9098797	30.50728557
Tatumville Gully	TG-211224-A	-87.90887233	30.50728764
Tatumville Gully	TG-83783-A	-87.90897627	30.50582147
Tatumville Gully	TG-50454-A	-87.90804873	30.50741002
Tatumville Gully	TG-67694-A	-87.90691787	30.50729463
Tatumville Gully	TG-59896-A	-87.90593174	30.50770803
Tatumville Gully	TG-17404-A	-87.90528219	30,50816613
Tatumville Gully	TG-26854-A	-87.90313446	30.50873043
Tatumville Gully	TG-26854-D	-87.90312851	30.50873482
Tatumville Gully	TG-34683-A	-87.90243245	30.5096114
Tatumville Gully	TG-77805-A	-87.90047666	30.51149026
Tatumville Gully	TG-77821-A	-87.89903743	30.5125143
Tatumville Gully	TG-77821-B	-87.89897277	30.51257671
Tatumville Gully	TG-29902-A	-87.89899475	30.51270826
Tatumville Gully	TG-34957-A	-87.89872193	30.51378179
Tatumville Gully	TG-37896-A	-87.89871686	30.51618272
Tatumville Gully	TG-37896-B	-87.8986946	30.51619589
Tatumville Gully	TG-6961-A	-87.90031504	30.51806556
Tatumville Gully	TG-6961-B	-87.90051398	30.51826975

Tatumville Gully	TG-211224-B	-87.91158206	30.50890548
Tatumville Gully	TG-211224-D	-87.90991672	30.50744859
Tatumville Gully	TG-211224-C	-87.90891563	30.50743683
Tatumville Gully	TG-211224-E	-87.9072794	30.50711761
Tatumville Gully	TG-59896-B	-87.90568537	30.50783102
Tatumville Gully	TG-26854-C	-87.9039213	30.50815418
Tatumville Gully	TG-26854-B	-87.90325496	30.50865251
Tatumville Gully	TG-34683-B	-87.9024141	30.50966738
Tatumville Gully	TG-26139-A	-87.90225395	30.50989487
Tatumville Gully	TG-77819-A	-87.89922036	30.51244357
Tatumville Gully	TG-34957-B	-87.89874186	30.51292261
Tatumville Gully	TG-317177-A	-87.898512	30.51384098
Tatumville Gully	TG-317177-B	-87.89848122	30.51393725
Tatumville Gully	TG-317172-A	-87.89870908	30.51485298
Tatumville Gully	TG-37896-C	-87.89875254	30.51617076
Tatumville Gully	TG-28507-A	-87.89959558	30.51754249
Tatumville Gully	TG-63035-A	-87.90073216	30.51845504
Tatumville Gully	TG-281646-A	-87.90316529	30.5069011
Tatumville Gully	TG-281645-A	-87.90370313	30.50682579
Tatumville Gully	TG-281646-B	-87.90317705	30.50688889
Tatumville Gully	TG-56190-A	-87.90476573	30.50673845
Tatumville Gully	TG-69539-A	-87.91662592	30.5075705
Tatumville Gully	TG-64370	-87.90196398	30.50705647
Tatumville Gully	TG-281646-B	-87.90317789	30.50684126
Tatumville Gully	TG-281646-A	-87.90318813	30.50690157
Tatumville Gully	TG-26139-A	-87.90223455	30.50960467
Tatumville Gully	TG-34683-A	-87.90225964	30.5097416
Tatumville Gully	TG-34683-B	-87.90249134	30.50957974
Tatumville Gully	TG-11940-A	-87.91856834	30.51380876
Tatumville Gully	TG-64364-A	-87.91855129	30.51406822
Tatumville Gully	TG-26854-B	-87.90328866	30.5086888
Tatumville Gully	TG-17404-A	-87.90515641	30.50846615
Tatumville Gully	TG-26854-C	-87.90341218	30.50857951
Tatumville Gully	TG-50454-A	-87.90787118	30.50729819
Tatumville Gully	TG-56190-A	-87.90494674	30.50641054
Tatumville Gully	TG-37896-A	-87.89878579	30.51616255
Tatumville Gully	TG-211224-A	-87.90494062	30.5063857
Tatumville Gully	TG-37896-B	-87.89876318	30.51614304
Tatumville Gully	TG-211224-C	-87.9088694	30.50722551
Tatumville Gully	TG-37896-C	-87.89864618	30.51619809
Tatumville Gully	TG-211224-D	-87.90993741	30.50745301
Tatumville Gully	TG-83795-A	-87.90995704	30.50737585
Tatumville Gully	TG-83783-A	-87.90887617	30.50580996
Tatumville Gully	TG-211224-B	-87.91163133	30.50893705

Tatumville Gully	TG-281645-A	-87.90385857	30.50690
Tatumville Gully	TG-61465-B	-87.92081728	30.51244
Tatumville Gully	TG-61465-C	-87.92008974	30.51244
Tatumville Gully	TG-61465-A	-87.92058043	30.51291
Tatumville Gully	TG-77819-A	-87.8989535	30.51264
Tatumville Gully	TG-77821-A	-87.89896949	30.51267
Tatumville Gully	TG-77821-B	-87.89898456	30.51267
Tatumville Gully	TG-4684-A	-87.91102108	30.50952
Tatumville Gully	TG-317177-A	-87.8987171	30.51412
Tatumville Gully	TG-317177-B	-87.89872362	30.51407
Tatumville Gully	TG-43367-A	-87.9154273	30.51043
Tatumville Gully	TG-34924-A	-87.91515487	30.51126
Tatumville Gully	TG-34924-B	-87.91508762	30.51109
Tatumville Gully	TG-77805-A	-87.90045916	30.51149
Tatumville Gully	TG-21124-E	-87.91182713	30.51137
Tatumville Gully	TG-63035-A	-87.90069275	30.51849
Tatumville Gully	TG-5896-A	-87.90572478	30.50700
Tatumville Gully	TG-59896-B	-87.90569913	30.50783
Tatumville Gully	TG-67694-A	-87.90579869	30.50708
Tatumville Gully	TG-28507-A	-87.8997095	30.51773
Tatumville Gully	TG-6961-B	-87.90047746	30.51809
Tatumville Gully	TG-29902-A	-87.89979808	30.51265
Tatumville Gully	TG-26854-A	-87.90328237	30.50874
Tatumville Gully	TG-77181	-87.9041793	30.51071
Tatumville Gully	TG-6961-A	-87.90052299	30.51811
Tatumville Gully	TG34957-A	-87.89873365	30.51411
Tatumville Gully	TG-34957-B	-87.89873414	30.51412
Tatumville Gully	TG-317172-A	-87.89879256	30.51483
Turkey Branch	TB-309518-B	-87.86939816	30.45039
Turkey Branch	TB-309518-A	-87.87250228	30.45043
Turkey Branch	TB-257064-B	-87.87853485	30.44822
Turkey Branch	TB-257064-A	-87.87978572	30.44839
Turkey Branch	TB-257064-A	-87.87988671	30.44856
Turkey Branch	TB-257064-B	-87.87953727	30.44829
Turkey Branch	TB-309518-A	-87.87213768	30.45057
Turkey Branch	TB-309518-B	-87.8694873	30.45045
Volanta Gully	VL-43887-A	-87.90407056	30.54074
Volanta Gully	VL-5613-B	-87.88562694	30.53153
Volanta Gully	VL-34073-A	-87.89246111	30.53209
Volanta Gully	VL-34073-B	-87.89052683	30.53208
Volanta Gully	VL-34073-C	-87.89211345	30.53248
Volanta Gully	VL-34073-D	-87.89208849	30.53244
Volanta Gully	VL-34073-E	-87.89296662	30.53273
Volanta Gully	VL-36204-A	-87.89368655	30.53444

Volanta Gully	VL-43433-A	-87.89412565	30.53428272
Volanta Gully	VL-56704-A	-87.89399377	30.53292764
Volanta Gully	VL-73246-A	-87.8951219	30.53411739
Volanta Gully	VL-72822-A	-87.89539605	30.53421227
Volanta Gully	VL-73246-B	-87.8947763	30.53424407
Volanta Gully	VL-110128-A	-87.89879355	30.53312367
Volanta Gully	VL-89431-A	-87.89831714	30.53433482
Volanta Gully	VL-4651-A	-87.90003222	30.53675354
Volanta Gully	VL-4651-B	-87.90006841	30.53663946
Volanta Gully	VL-47625-A	-87.90023925	30.53676981
Volanta Gully	VL-47625-B	-87.90027899	30.53680353
Volanta Gully	VL-47625-C	-87.90028354	30.53680369
Volanta Gully	VL-56062-A	-87.88773103	30.53357524
Volanta Gully	VL-56062-B	-87.88798019	30.53342195
Volanta Gully	VL-36204-B	-87.89369845	30.53454426
Volanta Gully	VL-33279-A	-87.89355855	30.53456725
Volanta Gully	VL-47625-D	-87.90026887	30.53710145
Volanta Gully	VL-102308-A	-87.9034262	30.54207968
Volanta Gully	VL-102308-B	-87.90264616	30.54163337
Volanta Gully	VL-18772-A	-87.90227191	30.53957452
Volanta Gully	VL-43889-A	-87.90286911	30.54010123
Volanta Gully	VL-102308-C	-87.90395658	30.54142186
Volanta Gully	VL-102308-D	-87.90393763	30.54158716
Volanta Gully	VL-102308-E	-87.90379069	30.54206564
Volanta Gully	VL-18772-B	-87.90199413	30.5398526
Volanta Gully	VL-18772-C	-87.90214244	30.5401916
Volanta Gully	VL-43889-C	-87.90274854	30.54026842
Volanta Gully	VL-43889-B	-87.90313341	30.54059484
Volanta Gully	VL-47625-D	-87.90029772	30.53710599
Volanta Gully	VL-47625-C	-87.90022712	30.53681539
Volanta Gully	VL-47625-B	-87.90029146	30.53679526
Volanta Gully	VL-47625-A	-87.9002966	30.5367938
Volanta Gully	VL-4651-B	-87.9001327	30.53662272
Volanta Gully	VL-4651-A	-87.90004047	30.5367956
Volanta Gully	VL-110128-A	-87.89887345	30.53319322
Volanta Gully	VL-89431-A	-87.89833754	30.53440165
Volanta Gully	VL-12789-	-87.89240536	30.53829612
Volanta Gully	VL-5613-A	-87.88564332	30.53158144
Volanta Gully	VL-371532	-87.88837045	30.52916865
Volanta Gully	VL-18772-A	-87.90214632	30.54000918
Volanta Gully	VL-18772-B	-87.90202082	30.53981972
Volanta Gully	VL-18772-C	-87.90203805	30.53989767
Volanta Gully	VL-43887-A	-87.90387385	30.54073894
Volanta Gully	VL-43889-B	-87.90312577	30.54058492

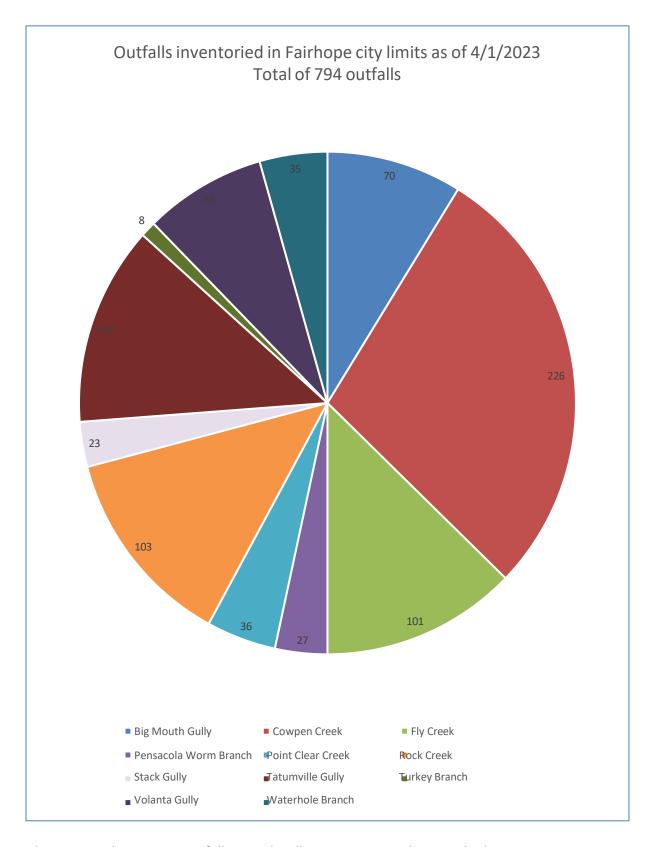
	Volanta Gully	VL-43889-A	-87.90286809	30.54012245
	Volanta Gully	VL-43889-C	-87.90272111	30.54029013
	Volanta Gully	VL-102308-C	-87.90378872	30.54142649
	Volanta Gully	VL-102308-D	-87.90393617	30.54154605
	Volanta Gully	VL-102308-E	-87.90375149	30.54216588
	Volanta Gully	VL-34073-A	-87.89250524	30.53190106
	Volanta Gully	VL-34073-D	-87.89208002	30.53243175
	Volanta Gully	VL-34073-E	-87.89299734	30.5326608
	Volanta Gully	VL-34073-C	-87.89214152	30.53249193
	Volanta Gully	VL-43433-A	-87.8941324	30.53423853
	Waterhole Branch	WB-243149-A	-87.87919323	30.49120107
	Waterhole Branch	WB-243146-A	-87.87924011	30.49169991
	Waterhole Branch	WB-2496-A	-87.86932298	30.45957315
	Waterhole Branch	WB-12786-A	-87.87918057	30.46358372
	Waterhole Branch	WB-226622-A	-87.87859646	30.46353095
	Waterhole Branch	WB-226623-A	-87.87604274	30.4593468
1	Waterhole Branch	WB-251558-A-	-87.87378936	30.46952375
	Waterhole Branch	WB-251558-B	-87.87423152	30.46723398
	Waterhole Branch	WB-226623-C	-87.87657267	30.45853009
	Waterhole Branch	WB-226620-A	-87.87833874	30.46958469
	Waterhole Branch	WB-226621-A	-87.87983888	30.46495186
	Waterhole Branch	WB-226621-B	-87.87988315	30.46434996
	Waterhole Branch	WB-226620-C	-87.87834179	30.46940152
	Waterhole Branch	WB-226620-B	-87.87833577	30.46941492
	Waterhole Branch	WB-226620-D	-87.87917646	30.46718018
	Waterhole Branch	WB-226620-E	-87.8796175	30.46583318
	Waterhole Branch	WB-226623-B	-87.87645097	30.45904816
	Waterhole Branch	WB-28448	-87.87840831	30.47073115
	Waterhole Branch	WB-243149-A	-87.87931113	30.49128451
	Waterhole Branch	WB-243146-A	-87.88007917	30.49179696
	Waterhole Branch	WB-2496-A	-87.86953531	30.45893251
	Waterhole Branch	WB-226620-E	-87.87885841	30.46741559
	Waterhole Branch	WB-226620-C	-87.8782819	30.46934718
	Waterhole Branch	WB-226620-D	-87.87829105	30.46934595
1	Waterhole Branch	WB-226620-A	-87.87821151	30.46992422
	Waterhole Branch	WB-226620-B	-87.87833881	30.46937849
ļ. —	Waterhole Branch	WB-12786-A	-87.8791883	30.46364812
	Waterhole Branch	WB-226622-A	-87.87849491	30.46362399
	Waterhole Branch	WB-251558-B	-87.8788368	30.46168328
	Waterhole Branch	WB-226623-C	-87.87654408	30.45856314
	Waterhole Branch	WB-226623-B	-87.87653745	30.45890599
	Waterhole Branch	WB-226623-A	-87.87602625	30.4593651
	Waterhole Branch	WB-251558-A-	-87.87373713	30.46965021
	Waterhole Branch	WB-226621-B	-87.87973213	30.46425176

WB-226621-A

-87.87968349

30.46493684

Waterhole Branch



There are no known city outfalls in Red Gully or Green Branch watersheds.

Stormwater Initiatives for 2024 include, but are not limited to:

- 1. Sewer Upgrades / side stream storage (Tatumville Gully Watershed)
- 2. Triangle Park Development / Management (Fly Creek Watershed)
- 3. Litter Trap project expansion (Stack Gully, Big Mouth Gully, Cowpen Creek)
- 4. Urban Forester FT position (natural parks management, all watersheds)
- 5. Re-establishing bacteriological water quality monitoring program (Fly Creek)
- 6. Eagle Reef Project 14 marine habitat reefs to be installed (Stack Gully, Big Mouth Gully, Fly Creek Watershed)



Pictured: Signage for sewer upgrade project, 2023/2024 (Tatumville Gully @ Public Works warehouse)



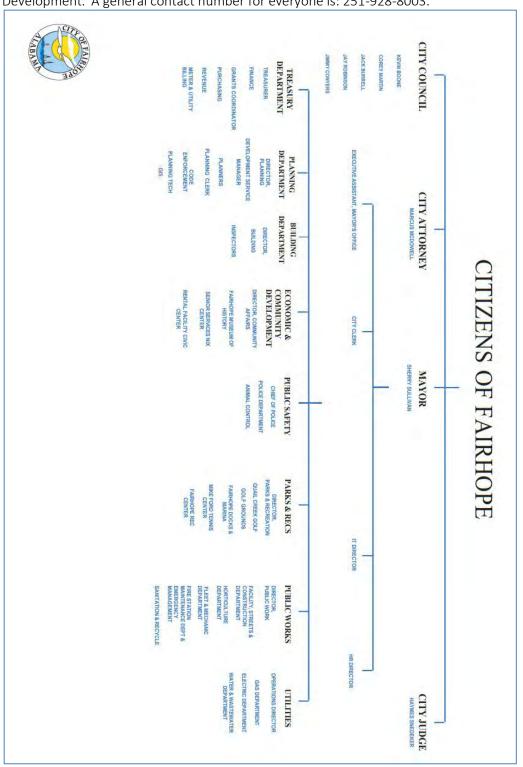
Pictured: Outdoor Classroom behind the old K-1 Center; St. James Street. Property owned by the City of Fairhope offers a natural setting. The pavilion is used by FEEF (Fairhope Environmental Enrichment Foundation) and for environmental education activities.

The Minimum Control Measures with Measurable Goals for 2024:

- 1. Public Education and Public Involvement on Stormwater Impacts (4)
  - a. Stormwater Education / Seminar for Planning and Zoning Dept.
  - b. Stormwater Article on social media
  - c. Public Educational / Input Meeting for Stormwater Issues
  - d. 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 Stormwater Runoff Control (4)
  - a. Annual BMP / Erosion and Sediment Control Workshop (Planning & Zoning)
  - b. QCI Recertification of Code Enforcement Officer (1) (Planning & Zoning)
  - c. QCI Recertification for Building Dept. Inspectors (2) (Building Department) plus certification for new inspector (1)
  - d. QCI Certification for Right of Way Inspectors (3 Total)
    Public Works (2); Water and Sewer Department (1)
- 4. Post Construction Stormwater Management in New Development and Redevelopment (2)
  - a. Creek/Shoreline Assessment of MS4 area via Kayak
  - b. Post Construction Stormwater Facility Maintenance Support for HOAs
- 5. Pollution Prevention / Good Housekeeping for Municipal Operations (2)
  - a. Good Housekeeping / Pollution Prevention Memo to all departments
  - b. Dry Weather Screening of Public Works Facility

#### 2.2 SWMPP Management

The City of Fairhope Grant Coordinator will serve as the lead coordinator of the MS4 Stormwater 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.



Pictured: Management Flow Chart as of November 1, 2023

#### 2.3 SWMPP – Watersheds of Fairhope

The City of Fairhope uses a watershed-based approach to stormwater management. The MS4 area limits (also the annexed City limits) encompasses 13 watersheds, and approximately 15 square miles.

City of Fairhope MS4 area limit in acres – 9,995 acres, as of April 2023:

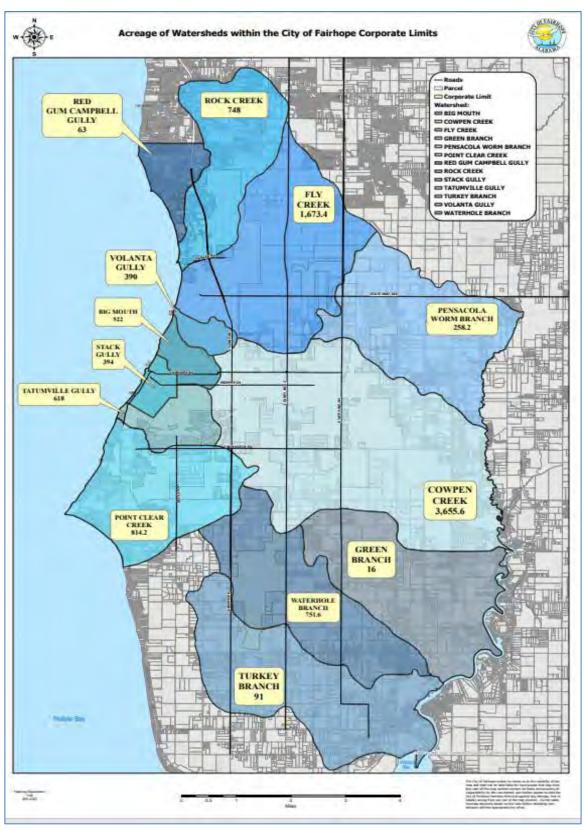
a.	Red Gully	63
b.	Rock Creek	748
C.	Fly Creek	1673
d.	Volanta	390
e.	Big Mouth Gully	522
f.	Stack Gully	394
g.	Tatumville Gully	618
h.	Point Clear Creek	814
i.	Turkey Branch*	91
j.	Waterhole Branch*	752
k.	Cowpen Creek *	3656
l.	Pensacola Branch/Worm Branch*	258
m.	Green Branch*	16

Source: Planning and Zoning Department GIS / Planning Tech (CA) April 2023
\*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: Green Branch, 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 ONRW.



Pictured: City of Fairhope grant writer and FEAB representative discuss wetland restoration and outdoor education opportunities in the Big Mouth Gully basin off Bayou Drive (September 2023)



Watershed Map with Corporate Limits Acreage (MS4 area) as of April 2023 (Source: GIS/CA)

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

➤ Requirements: According to the general permit, Fairhope the "Permittee" shall develop and implement a public education and outreach program to inform the public about the impacts of stormwater discharges on water bodies and the steps that the public can take to reduce pollutants in stormwater runoff to the MEP. The Permittee shall continuously implement this program in the areas served by the MS4 (City Limits). Fairhope shall also comply, at a minimum, with applicable State and local public notice requirements when implementing a public involvement/participation program. Each year, Fairhope shall implement a minimum of four BMPs, with two BMPs emphasizing public education and two BMPs emphasizing public involvement.

The Permittee shall include within the SWMPP the following information:

- A. Annually, seek and consider public input in the development, revision, and implementation of the SWMPP, that may include, but is not limited to publishing in local newspaper, posting on the Permittee's website, etc.
- B. Address in its public education program, the targeted pollutant sources to include, at a minimum the land development community (i.e., construction contractors/developers).
- C. Specifically address the reduction of litter, floatable and debris from entering the MS4, that may include, but is not limited to: NPDES General Permit Number ALR040000 Part III: Stormwater Pollution Prevention and Management Program Page 7 (1) Establishing a program to support volunteer groups for labeling storm drain inlets and catch basins with "no dumping" message; post signs referencing local codes that prohibit littering and illegal dumping at selected designated public access points to open channels, creeks, and other relevant waterbodies;
- D. Inform and involve individuals and households about the steps they can take to reduce stormwater pollution;
- E. Plans to inform and involve individuals and groups on how to participate in the stormwater program (with activities that may include, but not limited to, local stream and lake restoration activities, stormwater stenciling, advisory councils, watershed associations, committees, participation on rate structures, stewardship programs and environmental related activities, and outreach on LID/GI). The target audiences and subject areas for the education program that are likely to have significant stormwater impacts should include, but is not limited to, the following:
  - (1) General Public
  - (a) General impacts litter has on water bodies, how trash is delivered to streams via the MS4 and ways to reduce the litter;
  - (b) General impacts of stormwater flows into surface water from impervious surface; and
  - (c) Source control BMPs in areas of pet waste, vehicle maintenance, landscaping, and rainwater reuse.
  - (2) General Public, Businesses, Including Home-Based and Mobile Businesses
  - (a) BMPs for use and storage of automotive chemicals, hazardous cleaning supplies, car wash soaps and other hazardous materials; and
    - (b) Impacts of illicit discharges and how to report them.

#### PUBLIC EDUCATION AND PUBLIC INVOLVEMENT ON STORMWATER IMPACTS, cont.

- (3) Homeowners, Landscapers, and Property Managers
  - (a) Yard care techniques that protect water quality.
  - (b) BMPs for use and storage of pesticides and fertilizers.
  - (c) BMPs for carpet cleaning and auto repair and maintenance, and
- (d) Runoff reduction techniques, which may include but not limited to site design, pervious paving, retention of forests, mature trees, and maintenance required for LID/GI; and
  - (e) Stormwater pond maintenance.
- (4) Engineers, Contractors, Developers, Review Staff and Land Use Planners
  - (a) Technical standards for construction site sediment and erosion control;
  - (b) Stormwater treatment and flow control BMPs;
  - (c) Impacts of increased stormwater flows into receiving water bodies; and
- (d) Run-off reduction techniques and low impact development (LID)/green infrastructure (GI) practices that may include, but not limited to, site design, pervious pavement, alternative parking lot design, retention of forests and mature trees to assist in stormwater treatment and flow control BMPS, and maintenance required for LID/GI.
- F. Evaluate the effectiveness of the public education and public involvement program. If the Permittee determines any portion of the program, including BMPs, to be ineffective, then the Permittee shall update the SWMPP to address the ineffectiveness.
  - The Permittee shall make their SWMPP available to the public when requested. The current SWMPP and the latest annual report should be posted on the Permittee's website within 30 days of submittal to the ADEM.
- Responsible Persons: Planning and Zoning Director; Building Department; Public Works Director; Grant Coordinator; Director of Community Affairs



Pictured: Orange Street pier at Mobile Bay, Tatumville Gully watershed (2023)

#### PUBLIC EDUCATION AND PUBLIC INVOLVEMENT ON STORMWATER IMPACTS, CONT.

- Rationale Statement: The City of Fairhope supports the Fairhope Environmental Advisory Board (FEAB), which currently has nine members as of 11/1/2023. This Advisory Board provides a public forum for local environmental discussions and educational outreach, with stormwater 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 stormwater issues. Additionally, hands-on events, such 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 Eastern Shore Watershed Management Plan (ESWMP) Steering Committee. The ESWMP is led by the Mobile Bay National Estuary Program. The Planning and Zoning Department is the City's representative for this Committee;
  - b. Create a Clean Water Future partner;
  - c. Eastern Shore MS4 partners with Daphne, Spanish Fort, Baldwin County and AL-DOT;
  - d. Joint Environmental Advisory Board between Baldwin County, Fairhope, Daphne and Spanish Fort. City of Fairhope Planning and Zoning staff attend quarterly meetings;
  - e. CAST Coastal Alabama Stormwater Team;
  - f. Weeks Bay National Estuarine Research Reserve;
  - g. Mobile Bay National Estuary Program, and
  - h. Fairhope High School Marine Life Club; Marine Science Class.

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

- a. Coastal Clean Up (Public Works)
- b. Mobile Area Earth Day (Public Works, Planning and Zoning)
- c. Arbor Day (Public Works)
- d. America Recycles Day (Public Works)

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

- a. Master Environmental Educator Program (Planning and Zoning Dept.)
- b. Fairhope High School Marine Life Club / Environmental Group partnering with this group for monofilament line recycling.

The city of Fairhope supports public access to volunteer water testing results by posting a link to Alabama Water Watch on the City website. ADEM's water quality testing (prompting swim advisories) is posted at areas of swimming activity.

#### PUBLIC EDUCATION AND PUBLIC INVOLVEMENT ON STORMWATER IMPACTS, CONT.

The city of Fairhope offers opportunities for public review, involvement, and participation in the City of Fairhope Stormwater Management Program Plan (SWMPP). The current SWMPP and the MS4 Annual Report are posted on the City website: <a href="www.fairhopeal.gov/departments/planning-and-zoning/publications-and-forms">www.fairhopeal.gov/departments/planning-and-zoning/publications-and-forms</a>. 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 the annual forum for the SWMPP. The Planning and Zoning Department is responsible for coordination of these efforts.

PUBLIC EDUCATION AND PUBLIC INVOLVEMENT ON STORMWATER IMPACTS, CONT.

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

<u>Citizen Complaints / Comments:</u> 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 stormwater, 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:



Fairhope on-line 311 Reporting System on-line for complaints

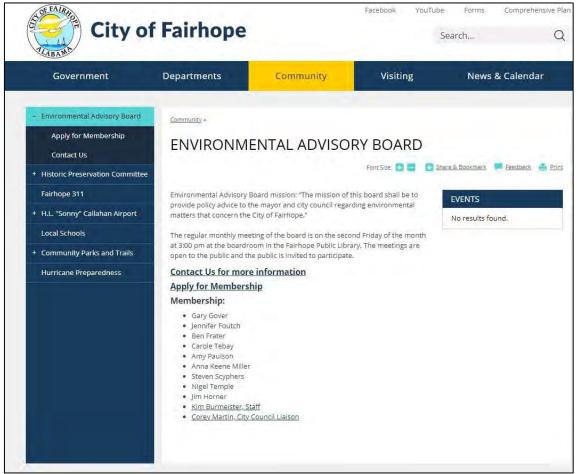
#### PUBLIC EDUCATION AND PUBLIC INVOLVEMENT ON STORMWATER IMPACTS, CONT.

#### 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 Public Education:
  - 1. Brochures / publications/media
  - 2. City Website
  - 3. Existing Demonstration Project with signage:
    - i. Wetland Pond
    - ii. Eagle Reef Project
  - 4. Employee Certifications and Training
  - 5. Create a Clean Water Future Campaign
  - 6. Stormwater Alliances
- > BMPs/Mechanisms used for Public Involvement:
  - 1. Public Educational Meetings
  - 2. Community Events
  - 3. Pet waste bags available in City Parks
  - 4. Notifications for Public Meetings
  - 5. Subdivision Property Owners Associations Contact List
  - 6. City of Fairhope Planning Commission hearings
  - 7. City of Fairhope Environmental Advisory Board meetings
  - 8. Sanitary Sewer Overflow Signage



Pictured: Fairhope Environmental Advisory Board page on the City of Fairhope website

#### Public Education:

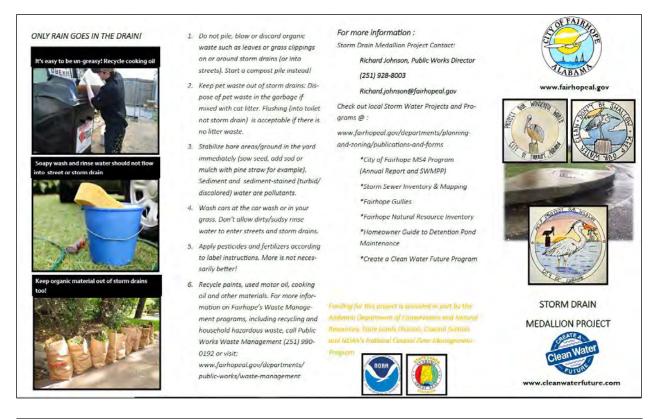
BMP # 1: Brochures / Publications / Media promoting green space and stormwater management, available at City offices and/or on-line:

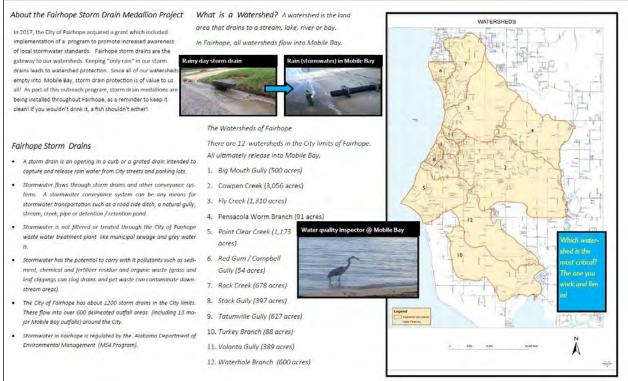
- 1. Greener by the Yard, pamphlet, Weeks Bay Watershed Project
- 2. Fairhope Gullies, brochure, joint effort of Mobile Bay National Estuary Program, Fairhope Single Tax Corporation, and the City of Fairhope
- 3. Parks of Fairhope, brochure, joint effort of the Fairhope Environmental Advisory Board and the City of Fairhope
- 4. Field Guide for Erosion and Sediment Control on Construction Sites in Alabama, booklet, by Alabama Soil and Water Conservation Committee
- 5. Facebook: City of Fairhope frequently uses Facebook to advertise events as well as new policies and procedures.
- 6. 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
- 7. 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 public. It briefly explains the importance and requirements of our local MS4 program. Available on the City of Fairhope website.
- 8. Storm Drain Medallion Project brochure developed in 2018. Available in hard copy and on-line. Storm drain medallions are still on many storm drains around the city.

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



Storm Drain Medallions





Storm Drain Medallion Brochure

## PUBLIC EDUCATION AND INVOLVMENT ON STORMWATER IMPACTS, cont.

BMP # 2: City Website (www.fairhopeal.gov) has informative links for:

- 1. Alabama Water Watch
- 2. ADEM Water Quality Testing
- 3. Create a Clean Water Future
- 4. Waste Management
- 5. MS4 Annual Report and SWMPP
- 6. Zoning Ordinance / Subdivision Regulations
- 7. "Understanding Your Stormwater Management Program" 5-minute video shared with permission of the Mobile Bay NEP.
- 8. Municipal Code of Ordinances (www.fairhopeal.gov/departments/building/building-codes)
- 9. Erosion and Sediment Control Ordinance (#1398; #1603)
- 10. Red Soils & Clay Ordinance (# 1423)
- 11. Wetlands Ordinance (#1370)
- 12. Construction Site Waste Ordinance (#958)
- 13. Illicit Discharge Ordinance (#1516)
- 14. Fairhope Watershed management studies:
  - a. Fly Creek Restoration Project (2013)
  - b. Volanta Gully Watershed Management Plan
  - c. Tatumville Watershed (partial study July 2019)
  - d. Eastern Shore Watershed Management Plan (2023)
- 15. Sewer Capacity Study 2017 (Water and Sewer)

Responsible Person(s) for City website informative links: Planning and Zoning Department (Code Enforcement Officer); Director of Community Affairs; Grants Coordinator; Water and Sewer Superintendent

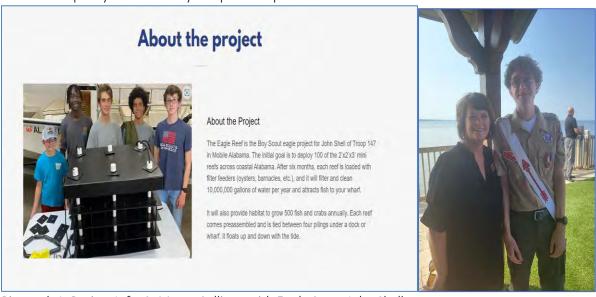


Pictured: City of Fairhope has staff trained (2023) for bacteriological monitoring in 2024

BMP # 3: Existing Demonstration projects provide educational signage:

1. Eagle Reef Project – City has purchased 14 Eagle Reefs to be installed at pier locations in Fairhope (no later than 2024).

The hope is to encourage habitat for fish, mollusk and other bay fauna which may aid in improved water quality in Mobile Bay. Responsible person: Grants Coordinator



Pictured: 1. Project Info 2. Mayor Sullivan with Eagle Scout John Shell

2. Wetland Pond @ North Beach Park – this simulated Wetland Pond was installed 20 years ago to reduce pathogens from 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.

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



Figure 1 Simulated wetland pond at North Beach Park, with signage of native plants used for initial planting.

## BMP #4: Employee Certifications:

- 1. The City of Fairhope currently has at least two licensed Commercial Pesticide Applicators, who are licensed by the State of Alabama Department of Agriculture and Industries Pesticides Applicators Certification program. This includes the landscape supervisor in Public Works, and one supervisor over the Parks and Recreation Department / Golf Course. This 3-year certification aids in pollution prevention by guiding applicators on correct application techniques. Responsible Person: Public Works Director
  - a. Landscape Supervisor, Certification #2000246
  - b. Parks and Recreation / Golf Course Grounds Supervisor, Certification #2004867
- 2. Qualified Credentialed Inspector (QCI) program educates inspectors on correct erosion and sediment control applications and installation techniques. Any new inspectors hired will acquire QCI training within12 months: -QCI yearly recertification is required.

Responsible Person: Building Official; Planning and Zoning Code Enforcement Officer; Water/Wastewater Superintendent; Public Works Director

- a. P&Z Code Enforcement Officer (LeJeune), Certification #81295 Exp. 3/2024
- c. Building Inspector #1 (Nixon): #T6435 Exp. 2/24
- d. Building Inspector #2 (Bradley): T6889 Exp. 4/24
- e. Building Inspector #3 (E. Tucker): New hire (6/23) \*Will acquire in 2024.
- f. Public Works, Right of Way Inspector (D. Thomas): #T7813 Exp. 2/24
- g. Public Works, Right of Way Inspector (M. Smith) #T8081 Exp. 11/24
- g. Utility Right of Way Inspector (MJ): #T8083 Exp. 11/24

# BMP# 5: 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 (<a href="www.cleanwaterfuture.com">www.cleanwaterfuture.com</a>) contains valuable resources for City employees, residents and educators to use in our community.

Responsible Person: Planning and Zoning Department (Code Enforcement)



Source: www.cleanwaterfuture.com

#### BMP #6: Stormwater Alliances

- a. The Eastern Shore Watershed Management Plan (ESWMP) Steering Committee. The Planning and Zoning Department is a member of the Committee. The ESWMP is led by the Mobile Bay NEP. The plan was finalized in 2023 and will be used for guidance in stormwater initiatives.
- b. Create a Clean Water Future partners: Resources / videos are utilized for training (www.cleanwaterfuture.com)
- c. Eastern Shore MS4 partners with Daphne, Spanish Fort, Baldwin County and AL-DOT- meet annually to compare MS4 programs, sharing of information on how goals are achieved.
- d. Joint Environmental Advisory Board between Baldwin County, Fairhope, Daphne and Spanish Fort. City of Fairhope Planning and Zoning staff attend quarterly meetings. Main goal is to help establish similar stormwater language and buffers across jurisdictional lines.
- e. CAST Coastal Alabama Stormwater Team hosted by Mobile Bay NEP: Zoom meetings are held annually to create industry education.
- f. Fairhope High School Marine Life Club and Marine Science Class MLC provides recovery of fishing line from recycling containers on the municipal pier; In 2023, MSC built and decorated covers for North Beach Park trash containers, to prevent blowable litter.
- g. Mobile Bay National Estuary Program
- h. Weeks Bay National Estuarine Research Reserve



Pictured: FHS Marine Science Class students with trash lid project results (North Beach Park)

#### Public Involvement:

#### BMP #1: Public Educational Events:

- Master Environmental Educator (MEE) Planning and Zoning Department has one staff person (Code Enforcement Officer) trained to participate in this program.
   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 in April. 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

## BMP #2: Community Events:

- 1. Mobile Area Earth Day (South Beach Park in Fairhope). Public Works offers e-waste recycling at this event which is held annually (April).
- 2. Alabama Coastal Clean Up (beachfront parks) is held annually in September. The city of Fairhope coordinates garbage pickup and recycling of recovered materials.
- 3. Arbor Day (Coastal Community College) City gives away 1,000 seedlings every year at this event.
- 4. America Recycles Day free amnesty day for recycling, paper shredding and e-waste recycling. The city of Fairhope hosts this event at Public Works annually on or around November 15<sup>th</sup>.

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



Pictured: Earth Day 2023: City of Fairhope offered watershed and litter information and gave away reusable bags to reduce single use plastics in our community.

### BMP # 3: 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 #4: 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 (Planning Clerk); City Clerk

## BMP #5: Subdivision Property Owners Associations Contact List

A current list of subdivision and property owner associations is kept updated to include email and 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 (Planning Clerk)

### BMP #6: 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. Stormwater standards are a component of the development review process. The Planning Commission also serves as the annual review board for the Fairhope Stormwater Management Plan (SWMPP).

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

BMP #7: 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 nine 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); Grants Coordinator

BMP# 8: Sanitary Sewer Overflow On-Site Signage

Signs are added as soon as a spill is discovered.

Responsible Person: Water/Wastewater Superintendent

#### Measurable Goals

One Year Goals:

1. Stormwater Education / Seminar

Responsible Department: Planning and Zoning Department (Director)

Goal: At least one staff member shall attend one stormwater related workshop,

conference, or seminar annually

Due: December 2024

2. Stormwater Article on social media (Facebook)

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

**Director of Community Affairs** 

Goal: Ensure there is at least one stormwater related article on Facebook per

year

Due: December 2024

Public Educational / Input Meeting for Stormwater Issues Responsible

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 stormwater plans and policies.

Due: December 2024

## 1. 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 2024



Pictured: Example of social media; Facebook feed on the anti-litter campaign with Fairhope-area schools, April 2023

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

- Requirements: According to the general permit, Fairhope, the "Permittee" must: Implement an ongoing program to detect and eliminate illicit discharges into the MS4, to the maximum extent practicable. The program shall include, at a minimum, the following:
  - A. An initial map shall be provided in the SWMPP with updates, if any, provided each year in the annual report. The map shall include, at a minimum:
    - (1) The latitude/longitude of all known outfalls;
    - (2) The names of all waters of the State that receive discharges from these outfalls; and
    - (3) Structural BMPs owned, operated, or maintained by the Permittee, if applicable.
  - B. Provide, to the extent allowable under State law, an ordinance or other regulatory mechanism that effectively prohibits non-stormwater discharges to the MS4. The ordinance or other regulatory mechanism shall be reviewed annually and updated as necessary and shall:
    - (1) Include escalating enforcement procedures and actions; and
    - (2) Require the removal of illicit discharges and the immediate cessation of improper disposal practices upon identification of responsible parties. Where the removal of illicit discharge within ten working days is not possible, the ordinance shall require an expeditious schedule for removal of the discharge. In the interim, the ordinance shall require the operator of the illicit discharge to take all reasonable and prudent measures to minimize the discharge of pollutants to the MS4.
  - C. Include a dry weather screening program designed to detect and address non-stormwater 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 percent) 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 NPDES General Permit Number ALRO40000 Part III: Stormwater Pollution Prevention and Management Program Page 9 iv;
  - D. Include procedures for tracing the source of a suspect illicit discharge as outlined in the SWMPP. At a minimum, these procedures will be followed to investigate portions of the MS4 that, based on the results of the field screening or other appropriate information, indicate a reasonable potential of containing illicit discharges or other sources of non-stormwater;
  - E. Procedures for eliminating an illicit discharge as outlined in the SWMPP;
  - F. Procedures to notify ADEM of a suspect illicit discharge entering the Permittee's MS4 from an adjacent MS4 as outlined in the SWMPP;
  - G. Provide a mechanism for the public to report illicit discharges discovered within the Permittee's MS4 and procedures for appropriate investigation of such reports;
  - H. Provide a training program for appropriate personnel to be trained on identification, reporting, and corrective action of illicit discharges, at a minimum of at least once every five years;

- I. Address the following categories of non-storm discharges or flows (i.e., illicit discharges) only if the Permittee or the Department identifies them as significant contributors of pollutants to your small MS4: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration (infiltration is defined as water other than wastewater that enters a sewer system, including foundation drains, from the ground through such means as defective pipes, pipe joints, connections, or manholes. Infiltration does not include, and is distinguished from, inflow), uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering run-off, individual residential car washing, flows from riparian habitats and wetlands, discharge or flows from firefighting activities (to include fire hydrant flushing); dechlorinated swimming pool discharges, and residual street wash water, discharge authorized by and in compliance with a separate NPDES permit;
- J. Develop a list of other similar occasional incidental non- stormwater discharges (e.g., non-commercial or charity car washes, etc.) that will not be addressed as illicit discharges. These non-stormwater discharges must not be reasonably expected (based on information available to the Permittees) to be significant sources of pollutants to the municipal separate storm sewer system, because of either the nature of the discharges or conditions you have established for allowing these discharges to your MS4 (e.g., a charity car wash with appropriate controls on frequency, proximity to impaired waterbodies, BMPs on the wash water, etc.). You must document in your SWMPP any local controls or conditions placed on the discharges. The Permittee must include a provision prohibiting any individual non- stormwater discharge that is determined to be contributing significant amounts of pollutants to your MS4, and
- K. Include in the Annual Report the following information:
  - 1. List of outfalls observed in the annual reporting year to demonstrate that 100% of outfalls are screened at least once every five years during the dry weather screening;
  - 2. Updated MS4 map(s) as required by Part III.B.2.a.i. unless there are no changes to the map that was previously submitted. When there are no changes to the map, the annual report must state this;
  - 3. Copies of, or a link to, the IDDE ordinance or other regulatory mechanism as required by Part III.B.2.a. ii of the general permit. When there are no changes to the ordinance or other regulatory mechanism, the annual report should state this;
  - 4. Date(s) of training conducted for appropriate personnel, and
- 5. The number of illicit discharges investigated, the screening results, and the summary of corrective actions taken to include dates and timeframe of response.
- Responsible Persons: Planning and Zoning Department; Public Works; Building Department; Water and Sewer Department, Volunteer Fire Department, Public Works Department; Water / Wastewater Superintendent; Director of Community Affairs

Rationale Statement: Illicit discharges are generally any discharge into a storm drain system that is not composed entirely of stormwater. 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.

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 <u>section 1-8</u> of the Code of Ordinances of the City of Fairhope.

Procedures for tracing and removing the source of the illicit discharge are written in the ordinance, as well as the City of Fairhope Standard Operation Procedure for Illicit Discharge.



### 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 outfails 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.

# 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

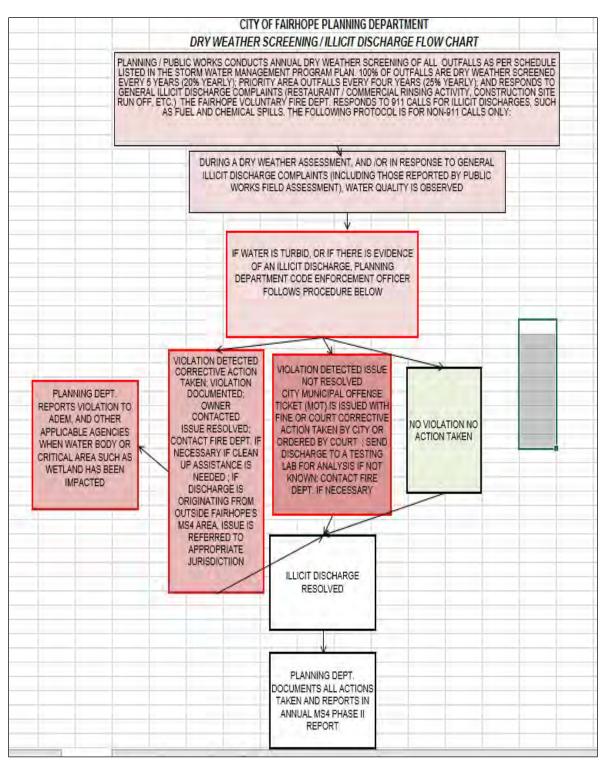
If a general illicit discharge is observed, and the nature of the discharge is not known, the City of Fairhope Planning Department will engage a testing laboratory to perform testing.

### 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.



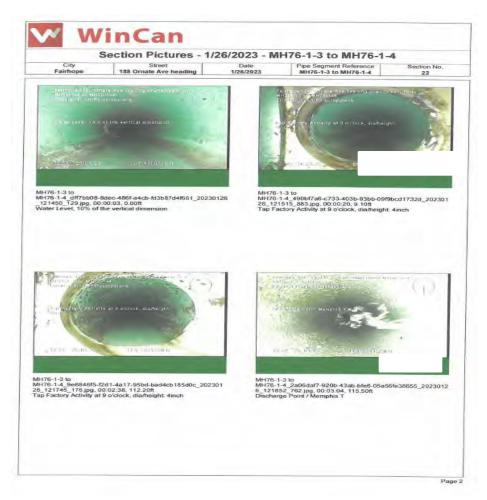
SOP Flow Chart for Illicit Discharges

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)



Example of Sewer Line Video from 2023 to check for infiltrations into stormwater systems.

All City outfalls identified in the Stormwater 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 (2024-2028) monitoring schedule is in the Measurable Goals section below.

# City of Fairhope

## MS4 Outfall Assessment Schedule 2024-2028

As per 2012 Storm Sewer (outfall) Inventory (including yearly updates)

Watershed	Number of outfalls inventoried	MS4 Monitoring Requirement / 5 yr.
		Monitoring Schedule (2022-2026)
Big Mouth	70 (includes one Major Outfall @	2028
	Mobile Bay)	Frequency: every 5 years
Cowpen Creek*	226	2025: Pg. 1-100
		2026: Pg. 100- end
		Frequency: every 4 years
Fly Creek*	101 (includes 1 Major Outfall @	2027
	Mobile Bay)	Frequency: every 4 years
Pensacola Worm Branch*	27	2026
		Frequency: every 4 years
Point Clear Creek	36	2027
		Frequency: every 5 years
Rock Creek	103 (includes one Major Outfall @	2024
	Mobile Bay)	Frequency: every 5 years
Stack Gully	23 (includes six Major Outfalls @	2028
	Mobile Bay)	Frequency: every 5 years
Tatumville Gully	102 (includes three Major Outfalls	2025
	@ Mobile Bay)	Frequency: every 5 years
Turkey Branch*	8	2024
		Frequency: every 4 years
Volanta	63 (Includes one Major Outfall @	2027
	Mobile Bay)	Frequency: every 5 years
Waterhole Branch*	35	2026
		Frequency: every 4 years
Red Gum and Green Branch	NO CITY OUTFALLS	N/A
TOTAL	794 OUTFALLS (INCLUDES 13	
	MAJOR OUTFALLS ALONG BAY)	

<sup>\*</sup>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).

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.

Outfall Assessment 5-year Schedule for 2024

- ➤ BMPs / Mechanisms used for IDDE program compliance:
  - 1. Illicit Discharge Ordinance #1516
  - 2. Code Enforcement Officer (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. Pamphlets on-line: Greener by the Yard; Storm Drain Medallion Project
  - 7. Staff Meetings (Public Works)
  - 8. City of Fairhope Watershed Map
  - 9. Stormwater Outfall Inventory updates and mapping
  - 10. Volunteer Fire Department (Spill response)
  - 11. Create a Clean Water Future Campaign
  - 12. Dry Weather Screening outfall assessments
  - 13. Sewer Capacity Study
  - 14. No feeding of ducks/geese ordinance #1598, signage in North Beach Park
  - 15. Alabama Water Watch sampling for pathogens (Planning and Zoning staff)
  - 16. Video of Sewer Lines to detect leaks.
  - 17. 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)

As of January 1, 2024, the City of Fairhope employs one Code Enforcement Officer and assisting with MS4 compliance. This position is responsible for investigation of and corrective action enforcement for illicit discharges (not including municipal sewer overflows). Standard Operating Procedures (SOPs) for enforcement and tracking is updated yearly if necessary.

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

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

BMP # 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 600 gallons of household hazardous waste yearly (based on the 2022 recap provided by Public Works for the 2022 Annual Report).

Responsible Person: Public Works Department (Director)

#### BMP # 6: Pamphlets on-line:

a. Greener by the Yard

pollution.

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.

b. Storm Drain Medallion Project
This pamphlet highlights the importance of allowing only rain in the drain. Artwork on the medallions provided by the Fairhope High School Art Class. Over a hundred City of Fairhope drains still have medallions on them and continue to serve as education on stormwater

Responsible Department: Planning and Zoning Department

BMP # 7: Staff Meetings: Public Works employees (approximately 50) 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. 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 online ("Natural Resource Inventory") and in the Planning and Zoning Department and in Public Works. The Planning and Zoning Department (GIS) is responsible for updating, printing, and providing updates to this map.

Responsible Department: Planning and Zoning GIS

### BMP # 9: Stormwater 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 stormwater outfall information is updated annually in hard copy form to include new development. As of April 1, 2023, the City of Fairhope Stormwater Outfall Inventory reflects 793 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

This campaign is mentioned in the Public Education section. It addresses stormwater 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 Code Enforcement

## BMP #12: Dry Weather Screening; outfall assessments

The city of Fairhope has staff visually inspect 15-20% of outfalls annually. The outfall assessment is done by watershed, with priority area watersheds inspected every 4 years and all outfalls inspected at least every 5 years. Currently there are 794 outfalls delineated in the inventory. The original 2012 outfall inventory is available online. The complete up to date outfall inventory is available on GIS mapping, and in hard copy (Planning Department). There is an outfall data sheet for each specific outfall. Responsible Department(s): Planning and Zoning Code Enforcement – coordination and support for reporting; Public Works Department staff conducts the field assessments of outfalls.

# BMP #13: Sewer Capacity Study

The city of Fairhope Water and Sewer Department continues to implement measures listed in the 2017 study, which outlined areas of improvement to help prevent sewer overflows.

Responsible Department: Water and Sewer Department

BMP #14: No feeding of ducks/geese, ordinance # 1598; Signage in North Beach Parks The city of Fairhope has signage to prevent feeding ducks and geese in City Park areas, such as North Beach Parks. Ducks and geese are a likely source for fecal contamination.

### BMP #15: Alabama Water Watch sampling for pathogens

The city of Fairhope has staff recently recertified for pathogen testing through the Alabama Water Watch program. The creek sampling program plan should be complete and underway sometime in 2024. Responsible Department: Planning and Zoning

### BMP #16: 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 owns a camera which can inspect sewer pipes and storm drains up to 500' long.

Responsible Department: Water and Sewer

### BMP #17: Survey 1-2-3 Application for Outfall Assessment-Field Collection

The Planning and Zoning Department GIS tech customized the Survey 1-2-3 application for field collection of outfall data. Data is collected via Survey 1-2-3 on a smart phone or tablet. The location of the outfall is immediately pinned upon each individual assessment and placed on an ESRI-based map which is updated through dry screen outfall inspections annually.

## Measurable Goals

One Year Goals:

Stormwater 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 Director)
 Due: December 2024

2. Video of Sewer Lines

Responsible Department: Water and Sewer Department Goal: Conduct video tests on priority sewer lines annually to detect sewer leaks or illegal connections. Document findings and corrective action taken (Water/Wastewater Superintendent)

Due: December 2024

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 2024

4. Dry Weather Screening of Outfalls

Responsible Department: Planning and Zoning Department / Public Works Department

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. The Planning and Zoning Department and Public Works Department will conduct and record these assessments annually. Outfalls deemed unacceptable during the assessment are reported to the property owner, via a letter from the Public Works Director.

Due: December 2024

Goal: b. PRIORITY OUTFALLS (DRAINS TO WEEKS BAY): Assess at least once every 4 years per 5-year schedule. Non-priority outfalls: once every 5 years. Public Works Department will conduct these assessments in 2024- Planning Department will coordinate inspections and result documentation/letters for non-compliance:

Rock Creek Watershed: 103 outfalls Turkey Branch Watershed: 8 outfalls

Due: December 2024

#### 5.0 MINIMUM CONTROL REQUIREMENT #3:

#### CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

- ➤ Requirements: According to the general permit, Fairhope the "Permittee" must: Develop/revise, implement and enforce an ongoing program to reduce, to the maximum extent practicable, the pollutants in any stormwater runoff to the MS4 from qualifying construction sites. The program shall include the following at a minimum:
  - A. Specific procedures for construction site plan (including erosion prevention and sediment controls) review and approval: The MS4 procedures must include an evaluation of plan completeness and overall BMP effectiveness;
  - B. To the extent allowable under State law, an ordinance or other regulatory mechanism to require erosion and sediment controls, sanctions to ensure compliance, and to provide all other authorities needed to implement the requirements of Part III.B.3 of this permit. The ordinance or other regulatory mechanism shall be reviewed annually and updated as necessary;
  - C. A training program for MS4 site inspection staff in the identification of appropriate construction BMPs (example: QCI training in accordance with ADEM Admin Code. R. 335-6-12 or the Alabama Construction Site General Permit). Applicable MS4 site inspection staff shall be trained at least once/yr.;
  - D. Within 365 days of the effective date of the permit, develop and implement a construction site inspection form to include at least the items listed in Parts III.B.3.d.i.;
  - E. Within 365 days of the effective date of the permit, maintain an inventory of qualifying construction sites containing relevant contact information for each construction site (i.e., tracking number and construction site contact name, address, phone number, etc.), the size of the construction site, whether the construction site has submitted for permit coverage under ADEM's Construction General Permit ALR100000, and the date the MS4 Permittee approved the site construction plan. The MS4 Permittee must make the inventory available upon the Department's request;
  - F. Procedures for the inspection of qualifying construction sites to verify the use of appropriate erosion and sediment control practices that are consistent with the Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas published by the Alabama Soil and Water Conservation Committee (hereinafter the "Alabama Handbook"). The frequency and prioritization of inspection activities shall be documented in the SWMPP. Inspection of construction sites shall be performed as specified below:

Site	Inspection Frequency
Priority Construction Sites (defined in Part VII.W.)	At a minimum, inspections must occur monthly.
Other sites determined by the Permittee or Permitting Authority to be a significant threat to water quality.*	
All qualifying construction sites not meeting the criteria specified above.	At a minimum, inspections must occur every three months.

#### CONSTRUCTION SITE STORMWATER RUNOFF CONTROL, CONT.

In evaluating the threat to water quality, the following factors must be considered, if applicable:

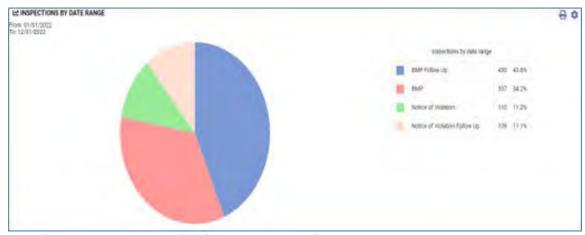
- Soil erosion potential; Site slope; Project size and type; Sensitivity of receiving waterbodies including 303 d or TMDL status; Proximity to receiving waterbodies; non-stormwater discharges; Past record of non-compliance by the operators of the construction site; and Other factors deemed relevant to the MS4.NPDES General Permit Number ALR040000 Part III: Stormwater Pollution Prevention and Management Program Page 11;
- G. For sites determined to have ineffective BMPs, a follow-up inspection shall be conducted and appropriately documented as outlined in Part III.B.3.d.i.;
- H. Procedures, as outlined in the SWMPP, to notify ADEM of construction sites that do not have a NPDES permit or ineffective BMPs that are discovered during the periodic inspections. The notification must provide, at a minimum, the specific location of the construction project, the name and contact information from the owner or operator, and a summary of the site deficiencies; and
- I. A mechanism for the public to report complaints regarding discharges from qualifying construction sites.
- ADEM implements a Statewide NPDES construction stormwater regulatory program. As provided by 40 CFR Part 122.35(b), the Permittee may rely on ADEM for the setting of standards for appropriate erosion controls and sediment controls for qualifying construction sites and for enforcement of such controls and must document this in its SWMPP. If the Permittee elects not to rely on ADEM's program, then the Permittee must include the following, at a minimum, in its SWMPP:
  - A. Requirements for construction site operators to implement appropriate erosion and sediment control BMPs consistent with the Alabama Handbook for Erosion Control, Sediment Control, And Stormwater Management on Construction Sites and Urban Areas published by the Alabama Soil and Water Conservation Committee (hereinafter the "Alabama Handbook");
  - B. Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality;
  - C. Development and implementation of an enforcement strategy that includes escalating enforcement remedies to respond to issues of non-compliance.

### CONSTRUCTION SITE STORMWATER RUNOFF CONTROL, CONT.

- D. An enforcement tracking system designed to record instances of non-compliance and the MS4's responding actions. The enforcement case documentation should include:
  - 1. Name of owner/operator;
  - 2. Location of construction project or industrial facility;
  - 3. Description of violations;
  - 4. Required schedule for returning to compliance;
  - 5. Description of enforcement response used, including escalated responses if repeat violation occurs or violations are not resolved in a timely manner;
  - 6. Accompanying documentation of enforcement response (e.g., notices of noncompliance, notices of violation, etc.);
  - 7. Any referrals to different departments or agencies; and
  - 8. The date violation was resolved.
- E. The Permittee must keep records of all inspections (i.e., inspection reports) and employee training required by Part III.B.3.a.
- The Permittee shall include within the SWMPP the following information:
  - A. Procedures for site plan reviews as required by Part III.B.3.a.i;
  - B. A copy or link of the ordinance or other regulatory mechanism required by Part III.B.3.a.ii.;
  - C. Plans for the training of MS4 site inspection staff as required by Part III.B.3.a.iii; and
  - D. A copy of the construction site inspection form meeting the requirements of Part III.B.3.a.
- The Permittee shall maintain the following information and make it available upon request:
  - A. Documentation of all inspections conducted of qualifying construction sites as required by Part III.B.3.a.vi. The inspection documentation shall include, at a minimum, the following:
  - (1) Facility type;
  - (2) Inspection date;
  - (3) Name and signature of inspector;
  - (4) Location of construction project;
  - (5) Owner/operator information (name, address, phone number, email);
  - (6) Description of the stormwater BMP condition that may include, but not limited to, the quality of vegetation and soils, inlet and outlet channels and structures, embankments, slopes and safety benches, spillways, weirs, and other control structures; and sediment and debris accumulation in storage and forebay areas as well as in and around inlet and outlet structures; and
  - (7) Photographic documentation of any issues and/or concerns.

#### CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

- B. Documentation of referrals of noncompliant construction sites and/or enforcement actions taken at construction sites to include, at a minimum, the following:
- (1) Name of owner/operator;
- (2) Location of construction project;
- (3) Description of violation;
- (4) Required schedule for returning to compliance;
- (5) Description of enforcement response used, including escalated responses if repeat violations occur; and
- (6) Accompanying documentation of enforcement responses (e.g., notices of non- compliance, notices of violations, etc.).
- C. Records of public complaints including:
- (1) Date, time, and description of the complaint;
- (2) Location of subject construction sites;
- (3) Identification of any actions taken (e.g., inspections, enforcement, corrections). Identifying information must be sufficient to cross-reference inspection and enforcement records.
- The Permittee shall report each year in the annual report the following information:
  - A. A description of any completed or planned revisions to the ordinance or regulatory mechanism required by Part III.B.3.a. ii. and the most recent copy, or a link to the ordinance; and
  - B. List of all active construction sites within the MS4 to include the following summary:
    - 1. Number of construction site inspections.
    - 2. Number of non-compliant construction site referrals and/or enforcement actions and description of violations.
    - 3. Number of construction site runoff complaints received; and
    - 4. Number of MS4 staff/inspectors trained. Include copies of certifications or attendance records for those MS4 staff/inspectors
- Responsible Persons: Planning and Zoning Department; Building Department; Public Works Department; Water/Wastewater Superintendent



Pictured: Citizen Serve report on Code Enforcement Inspections for 2022

Rationale Statement: The City of Fairhope has a Construction Site Stormwater 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. As of January 1, 2024, the city of Fairhope has six QCI certified inspection staff employees, with one new inspector scheduled to be trained in 2024. Crew leaders and city staff in each department are offered an overview of the Construction Site Stormwater Runoff Control program (including stormwater 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 Department, and the Public Works Department. The City of Fairhope has a written Standard Operating Procedure (SOP) for non-compliant construction sites which outlines enforcement procedures.

The City of Fairhope Erosion and Sediment Control Ordinances #1398 and #1603 are enforced through BMP, right of way inspections and building department inspections. The ESC includes:

- 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, and
- 8. Applicants must provide copies of QCI or other inspection reports to the city, upon request by the City.

#### CONSTRUCTION SITE STORMWATER RUNOFF CONTROL, CONST.

- BMPs / Mechanisms used for Construction Site Stormwater Runoff Control
  - 1. Development Review / Pre-Construction Meetings
  - 2. BMP Inspections (entered through Citizen Serve "Inspections" portal)
  - 3. Code Enforcement / Procedures for non-compliant sites
  - 4. City ordinances
  - 5. Educational material available in the Building Dept. and on-line
  - 6. QCI certification of inspection staff (Code Enforcement, Building Inspectors)
  - 7. City Annual Erosion and Sediment Control Workshop

### BMP # 1: Development Review:

MAJOR SUBDIVISIONS (5 or more units) and Multiple Occupancy Projects:

The City of Fairhope Planning and Zoning Department development review (and pre-construction meeting) process includes:

- 1. A Pre-Application Conference and Community Meeting is required. Art. IV(B)(1)(a).
- 2. Development Review with Staff (internal)
- 3. There are also mandatory community meetings for Major Subdivisions.
- 4. Preliminary Plats
  - a. Stand-alone drainage plan prepared by professional engineer that includes proposed method of stormwater detention and means of controlling during construction. Any lands prone to periodic inundation by storm drainage are clearly identified.
  - b. All engineering plans are signed and stamped by the registered professional engineer of record.
- 5. Pre-construction meeting with professional engineer of record
- 6. Final Plats for Subdivisions
  - a. Maintenance Bonds as guarantee that all stormwater related improvements have been installed according to the engineer's design and are working properly.
  - b. Location, size, and descriptions of detention ponds, stormwater culverts and appurtenances.
  - c. Submission of digital and/or video image, reflecting date and time stamp of storm drains to ensure drainage structures are working properly.
  - d. Maintenance Plan for maintenance of detention facilities that is a covenant that runs with the land.
  - e. Engineer's Certificate.

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 via Subdivision POA contact list (email). The City of Fairhope Building Department coordinates plan reviews of residential and commercial submittals for permit issuance.

#### CONSTRUCTION SITE STORMWATER RUNOFF CONTROL, CONT>

## General procedure of submittal review:

Staff conduct 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, stormwater 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 Stormwater reviews. Although the City of Fairhope Public Works Department has a Professional Engineer 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 from submitted plans to ensure minimum BMP standards are met. Drainage and structural BMPs are reviewed by the Building Department and the Public Works Department. 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/prior to land disturbance/site work permitting and before submittal of a Final Plat application / prior to building permit issuance. During the pre-construction meetings, City staff meets with the applicant's engineer of record to address specific issues such as stream / wetland buffer signage and protection, on-site erosion controls, and drainage concerns.

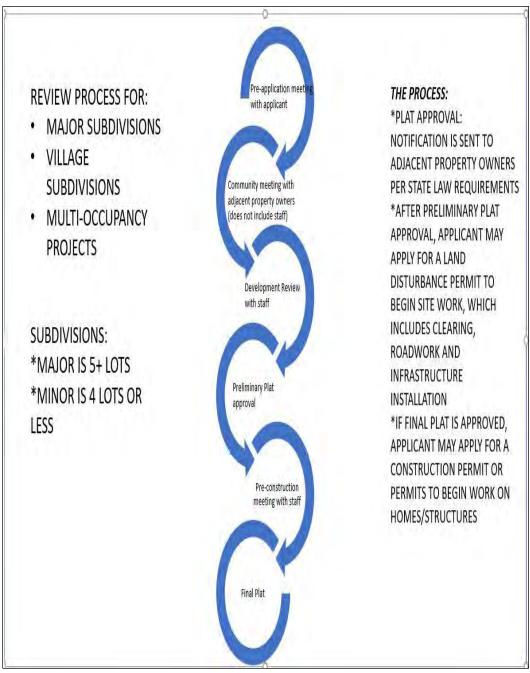


Pictured: Wetland Buffer signs at Overland subdivision, Cowpen Creek watershed

### CONSTRUCTION SITE STORMWATER RUNOFF CONTROL, CONT.

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.



City of Fairhope Review Process for Subdivisions

#### CONSTRUCTION SITE STORMWATER RUNOFF CONTROL, CONST.

BMP # 2: BMP Inspections: City of Fairhope Planning and Zoning Department employs a full-time Code Enforcement Officer position to perform code enforcement inspections, including BMP inspections. The Code Enforcement Officer tracks BMP inspections and non-compliant sites (including corrective actions taken) through inspections in Munis and Citizen Serve programs. 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 as followup 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. Other qualifying sites (non-priority construction area but more than an acre, including subdivisions, are inspected at least every three months as per ADEM requirements. 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 the site is stable and compliant.



BMP Inspections are conducted by Planning and Zoning Code Enforcement staff initially and as a follow up to ensure BMP minimum requirements are installed and remain installed and effective.

#### CONSTRUCTION SITE STORMWATER RUNOFF CONTROL, CONST.

BMP inspections include:

- a. Initial and at least every three months;
- b. Phasing (if applicable);
- c. Closure (certificate of occupancy is not issued unless site is stable; this is usually confirmed by building inspector performing final inspection), and
- d. 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 by state and/or federal authorities as well. A written Standard Operating Procedure (SOP) for non-compliant construction sites is reviewed annually with SWMPP renewal and is updated as needed. Escalation of enforcement is outlined in the SOP.



Silt fence maintenance is one of the common comments on a Notice of Violation



Example of BMP and Notice of Violation form used. Citizen Serve has all information including project files and contact information, as well as inspection tracking. Pictures are uploaded as a "document" item for non-compliance issues.



Planning Department / Building Department

Non-compliant Construction Site Protocol

Standard Operating Procedures (SOP)

#### **Background and Introduction**

As per the City of Fairhope NPDES Permit # ALR040040, the City is required to have written protocol for ADEM notification of non-complaint sites as required in Part III.B.4(b)(v) of the permit: "Procedures to notify ADEM of non-compliant construction sites discovered during periodic inspections. The notification must provide, at a minimum, the specific location of the construction project, the name and contact information from the owner or operator, and a summary of the site deficiencies."

#### General Concepts

The City of Fairhope is authorized via Code of Ordinance 1398, "Erosion and Sediment Control" to issue Stop Work Orders, Municipal Offense Tickets/Court Summons, suspend construction /building inspections, dispatch City Street Sweeper for minimum charge and/or issue Notice of Violations to violaters of this ordinance. The Erosion and Sediment Control Ordinance #1398 is enforced by the City of Fairhope Planning Department (Code Enforcement Officer) and the Building Department (Building Inspectors and Building Official). The Planning Department Code Enforcement Officer handles the bulk of the enforcement. The Planning Director must authorize issuance of a Municipal Offense Ticket (MOT) or Court Summons.

#### Enforcement

Where a construction site is found to be in violation of the City of Fairhope Erosion and Sediment Control Ordinance, the enforcement officer will elect to issue one or more of the following, depending on the severity of the violation:

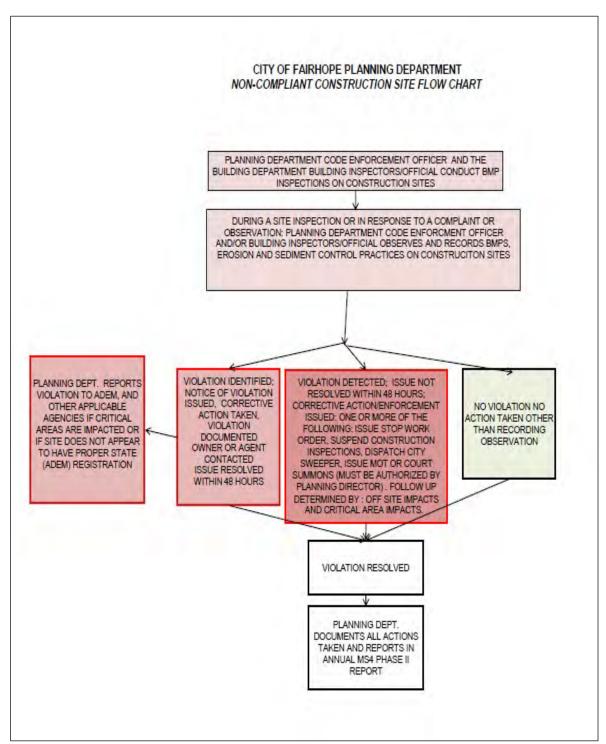
- 1. Notice of Violation (48 hour notice)-written, verbal, or email
- 2. Stop Work Order (on all activity except that which is necessary to stabilize the site and install appropriate BMPs)
- 3. Suspend construction / building inspections until resolved.
- 4. Dispatch City Street Sweeper for a minimum \$300 charge. Certificate of Occupancy not issued until this is paid.
- 5. Issue a MOT or Court Summons (with approval of the Planning Director)

## **Environmental Agency Notification**

When a construction site or other non-compliant site has been found to have impacted critical areas such as wetlands and bodies of water, the City will notify the appropriate agencies within 48 hours (written, email or verbal) of the identified non-compliance issues.

#### 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.



SOP Flow Chart for non-compliant construction sites

#### CONSTRUCTION SITE STORMWATER 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); Right of Way Inspectors (Public Works/Water and Sewer)

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:

- 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 Responsible person: Planning and Zoning Code Enforcement

### BMP #6: QCI (Qualified Credentialed Inspector) for inspection staff

Planning and Zoning Code Enforcement, Building Inspectors and right of way inspectors are QCI certified within 12 months of hire date. Currently Thompson Engineering is the source used for new certifications.

Responsible Persons: Planning and Zoning (Code Enforcement); Building Department (Building Inspectors); Water and Sewer Department (Utilities Inspector); Public Works Department (Right of Way Inspector)

#### CONSTRUCTION SITE STORMWATER RUNOFF CONTROL, CONST.

BMP #7: Employee Erosion and Sedimentation Workshop / Training

The City of Fairhope Planning and Zoning Department hosts an employee Erosion and Sedimentation Workshop annually at City facilities and/or trains key employees in each department through QCI certification. Target departments:

- a. Electric Department
- b. Water and Sewer Department
- c. Gas Department
- d. Public Works Department (Landscape/Streets)
- e. Parks and Recreation
- f. Golf Course (Quail Creek)

The purpose of training is to oversee utility and earth moving activities so that employees will be aware of State, Federal and local best management practices to prevent and reduce erosion and sedimentation. Emphasis is placed on right of way and utility work.

Responsible Person(s) for the Employee Erosion and Sediment Control Workshop / QCI Training Coordination: Planning and Zoning Department (Code Enforcement Officer); Public Works Department (Director); Building Department (Building Official); Water and Sewer Department (Utility Inspector)



Pictured: Planning and Zoning Code Enforcement Officer speaks to employees at the annual City Erosion Control Workshop about city, state and federal regulations for erosion and sediment control (November 2023)

#### CONSTRUCTION SITE STORMWATER RUNOFF CONTROL, CONT

#### ➤ Measurable Goals:

One Year Goal:

1. QCI Re-certification for Planning and Zoning Code Enforcement Officer (1) Responsible Department: Planning and Zoning Department

Goal: Recertify QCI Re-certification (Code Enforcement Officer)

Due: December 2024

2. QCI Re-certification for Building Department (Building Inspectors)

Responsible Department: Building Department

Goal: Recertify Building Inspectors (2) with QCI training / certify new inspector (1)

Due: December 2024

3. QCI recertification of Right of way inspectors 2- Public Works

1-Water and Sewer Department – utility inspector

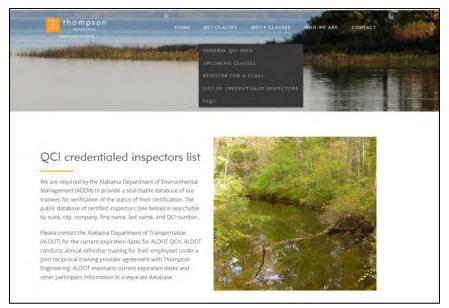
Goal: Recertify existing inspectors

Due: December 2024

4. Erosion and Sediment Control (BMP) Employee Workshop and/or QCI training for key employees in target departments

Responsible Department: Planning and Zoning Department (Code Enforcement) Goal: Planning and Zoning along with the Building Department and Public Works Dept. will host a 1-to-2-hour workshop for City employees, or coordinate QCI certification for key employee or employees in target department. Target departments: Electric, Water/Sewer, Gas, Public Works, Parks/Rec, Golf Course. BMP techniques and recent stormwater projects are discussed as well as City, State and Federal regulatory information.

Due: December 2024



Pictured: Thompson Engineering is the company currently used for Qualified Credentialed Training of inspectors.

#### 6.0 MINIMUM CONTROL MEASURE # 4: POST CONSTRUCTION STORMWATER MANAGEMENT

- Requirement: Post-construction stormwater management refers to the activities that take place after construction occurs and includes structural and non-structural controls including low-impact development and green infrastructure practices to obtain permanent stormwater management over the life of the property's use. These post construction controls should be considered during the initial site development planning phase. According to the general permit, Fairhope, the "Permittee" shall:
  - A. The Permittee must develop/revise, implement, and enforce a program to address stormwater runoff 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. Specifically, the Permittee shall:
  - (1) Develop/revise and outline in the SWMPP procedures for the site-plan review and approval process and a required re-approval process when changes to post-construction controls are required; and
  - (2) Develop/revise and outline in the SWMPP procedures for a post-construction process to demonstrate and document that post-construction stormwater measures have been installed per design specifications, which includes enforceable procedures for bringing noncompliant projects into compliance.
  - B. The Permittee 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 post construction runoff mimics preconstruction hydrology. A design rainfall event with an intensity up to that of a 2yr-24hr storm event shall be the basis for the design and implementation of post- construction BMPs.
  - C. Encourage and educate landowners and developers to incorporate the use of low impact development (LID)/green infrastructure where feasible. Information on low impact development (LID)/green infrastructure is available on the following websites:
  - http://www.adem.alabama.gov/programs/water/waterforms/LIDHandbook.pdf; <a href="http://epa.gov/nps/lid">http://epa.gov/nps/lid</a>. The Permittee shall include a narrative description in the SWMPP as to the means that will be taken to implement the requirement to encourage landowners and developers to incorporate the use of low impact development (LID)/green infrastructure.
  - D. To the extent allowable under State law, the Permittee must develop and institute the use of an ordinance or other regulatory mechanism to address post-construction runoff from qualifying new development and redevelopment projects. The ordinance or other regulatory mechanism shall be reviewed annually and updated as necessary.
  - E. The Permittee must require adequate long-term operation and maintenance of BMPs. One or more of the following as applicable:
  - (1) The developer's signed statement accepting responsibility for maintenance until the maintenance responsibility is legally transferred to another party; and/or
  - (2) Written conditions in the sales or lease agreement that require the recipient to assume responsibility for maintenance; and/or

- (3) Written conditions in project conditions, covenants and restrictions for residential properties assigning maintenance responsibilities to a homeowner's association, or other appropriate group, for maintenance of structural and treatment control management practices; and/or
- (4) Any other legally enforceable agreement that assigns permanent responsibility for maintenance of structural or treatment control management practices.
- F. The Permittee shall perform or require the performance of post-construction inspections, at a minimum of once per year, to confirm that post-construction BMPs are functioning as designed. The Permittee shall include an inspection schedule, to include inspection frequency, within the SWMPP. The Permittee shall document or require documentation of the post-construction inspection. Such documentation shall include, at a minimum:
- (1) Facility type
- (2) Inspection date
- (3) Name and signature of inspector
- (4) Site location
- (5) Owner information (name, address, phone number, fax, and email)
- (6) Description of the stormwater BMP condition that may include the quality of; vegetation and soils, inlet and outlet channels and structures, embankments, slopes, and safety benches; spillways, weirs, and other control structures; and sediment and debris accumulation in storage and forebay areas as well as in and around inlet and outlet structures;
- (7) Photographic documentation of all critical stormwater BMP components.
- (8) Specific maintenance items or violations that need to be corrected by the owner/operator of the stormwater control or BMP; and
- (9) Maintenance agreements for long-term BMP operation and maintenance.
- G. The Permittee shall maintain or require the developer/owner/operator to keep records of post-construction inspections, maintenance activities and make them available to the Department upon request and require corrective actions to poorly functioning or inadequately maintained post-construction BMP's.
- > The Permittee shall report each year in the annual report the following information:
  - A. Copies of, or link to, the ordinance or other regulatory mechanism required by Part III.B.4.a.iv.
  - B. A list of the post-construction structural controls installed and inspected during the permit year. The list shall include which post-construction structural controls installed are considered low impact development (LID)/green infrastructure, if applicable.
  - C. Updated inventory of post-construction structural controls including those owned by the Permittee.
  - D. Number of inspections performed on post-construction structural controls; and,
  - E. Summary of enforcement actions, if applicable.

➤ Rationale Statement: The Fairhope Zoning Board of Adjustments and Appeals meets 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 "Stormwater 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.

2. Landowner shall maintain the Facilities in such condition that the Facilities properly operate, function and perform (as designed by a professional engineer) for their intended purpose(s), which maintenance shall include, at a minimum, all maintenance required by all laws and ordinances of the City, the maintenance plan attached hereto as Exhibit "C", all items set forth on the Maintenance Checklist (hereinafter defined), and such other maintenance as is customary in Baldwin County, Alabama with respect to substantially similar stormwater management facilities. As used herein, the term "Facilities" shall include, without limitation, all pipes, channels or other conveyances built to convey storm water to the Facilities, as well as all storm water structures, improvements, and vegetation provided to control the quantity and quality of storm water that discharges from the Property. In connection with Landowner's maintenance of the Facilities, Landowner shall follow and comply with the Storm Water Structural Control Maintenance Checklists attached hereto as Exhibit "D" and incorporated herein by reference ("Maintenance Checklist").

Example of standard subdivision O&M agreement language.

The Planning and Zoning Department Code Enforcement Officers address runoff issues from sites within the City of Fairhope (including post construction residential and commercial areas). The Building Department Right of Way inspector oversees construction and development activities on the City right of way areas. These issues are tracked via a monthly Notice of Violation log in Citizen Serve or Munis. This log tracks complaints, follow-up, and corrective action taken. The Public Works Department oversees maintenance of city-owned stormwater infrastructure.

Responsible Persons: Planning and Zoning Department; Building Department; Public Works Department; Water/Wastewater Superintendent; Grants Coordinator

- BMPs / Mechanisms for Post-Construction Stormwater Management
  - 1. Subdivision Regulations
    - a. Stormwater 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. Stormwater Projects by the City
  - 5. Creek / Shoreline Assessment by kayak
  - 6. Standard Courtesy Letter for Property Owners of non-compliant stormwater facilities
  - 7. Annual Email to POA/HOA groups: "HOA Stormwater Guide"



Example of LID used in Hilltop Subdivision, Point Clear Creek watershed. November 2022

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

Responsible Department: Planning and Zoning Manager

- a. Stormwater Standards: https://www.fairhopeal.gov/home/showdocument?id=20823
- b. Stormwater 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 stormwater inspection requirement for respective stormwater facilities. This requirement is for subdivision stormwater 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 Director

- 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

#### 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 Stormwater 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 forebays 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 consideration 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 stormwater. 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 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 landforms, 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 is 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 to 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.

BMP # 2: Zoning Ordinance: available on-line for the public to view. Construction, development and redevelopment 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 Stormwater 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 onefoot 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 painting at the entrance of the parking stall.

Parking Dimension and Size:

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

	90°angle	60°angle	45°angle
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 absorption, 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 like 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 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"to 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 sheer 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.

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 Stormwater Projects: The City of Fairhope Public Works Department completes several stormwater projects annually. Projects include bioretention and stormwater 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/Wastewater Superintendent

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 drainpipes dumping into the body of water (privately owned and city owned pipes/conveyance systems/outfalls).

Responsible Department: Planning and Zoning Department (Code Enforcement)



Pictured: Fairhope Grants Coordinator paddling Fly Creeks as part of the 2023 shoreline assessment (September 2023)

BMP #6: Standard Courtesy Letter to Property Owners: The Planning and Zoning Department, in conjunction with the Public Works Department, has developed a standard letter which is sent to property owners (including Property Owners Associations) of potentially non-compliant or failing stormwater 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 3 or 5 year O & M plan requirement). After outfall 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 Stormwater 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 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. 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 ASSOCIATION 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 Homeowners 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

**Stormwater:** 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 and roads.
- Stormwater runoff is a big source of water pollution in our area. Oil, chemicals and pet waste that sit on our lawns, roofs, roads and driveways eventually are washed by rainfall runoff into stormwater ponds then into streams and rivers. 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 ponds. Know the rules to
  prevent violation of local stormwater ordinances.
- Lack of aerators and/or improperly functioning aerators can lead to stagnant water which encourage algal blooms and mosquito breeding.

Provided by the Weeks Bay Foundation, the Weeks Bay National Estuarine Research Reserve, and the Gulf Coast Resource Conservation & Development Council through collaboration with local municipal stormwater managers

#### 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

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

HOA Stormwater Guide Page 2

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				
Type of Facility: Dry Pond Wet Po	ond Outfall	Type of Inspection: Routine	Post – Storm	
ISSUE	PROBLEM NOTED? YES or NO	STEPS TO BE TAKEN	DATE OF COMPLETION	
re all structural components working properly?				
s water flowing out of the outflow pipe?				
re there any cracks or damaged areas n inlet/outflow pipes? Spillway? Weir?		10		
loes the grass need to be cut?				
las unwanted vegetation grown over he outflow or inlet pipes?		~0		
overgrowth of algae noted? f yes, is the aerator functioning properly?		411		
nvasive plants noted? Areas that need to be	- 1	4	_	
eseeded/replanted?	4.1	17		
Are there signs of erosion?				
s there noticeable sedimentation in the basin? In the inlet/outflow?	11			
signs of pollution? (Oily sheen, foam, etc.)				
Signs of vandalism?				
signs of pests? (Burrowing, nesting, fire ant hills)				

HOA Stormwater Guide Page 3 (Revised in 2023)

## A HOMEOWNER GUIDE TO STORMWATER DETENTION POND MAINTENANCE

### FAIRHOPE RESOURCES FOR STORMWATER QUESTIONS

#### Fairhope

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

#### Online

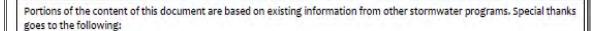
EPA Stormwater Program

https://www.epa.gov/npdes/npdes-stormwater-program

#### ADEM Stormwater

http://www.adem.state.al.us/programs/water/default.cnt

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



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"











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



#### ➤ Measurable Goals:

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 stormwater education (such as Earth Day watershed exhibit and/or
 Master Environmental Educator presentations in classrooms.

Due: December 2024



Pictured: Fairhope Planning and Zoning Staff with MS4 partners (Baldwin County and City of Daphne) at Earth Day 2023

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 2024

#### 7.0 MINIMUM CONTROL MEASURE # 5

#### POLLUTION PREVENTION / GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

- ➤ Requirements: As per the general permit, the City of Fairhope ("Permittee") shall develop, implement, and maintain a program that will prevent or reduce the discharge of pollutants in stormwater run-off from municipal operations to the maximum extent practicable. The program elements shall include, at a minimum, the following:
  - A. An inventory (to include name and location) of all municipal facilities. Evaluate and determine which municipal facilities have the potential to discharge pollutants via stormwater runoff.
  - B. Strategies for the implementation of BMPs to reduce litter, floatable and debris from entering the MS4 and evaluate those BMPs annually to determine their effectiveness. If a BMP is determined to be ineffective or infeasible, then an alternate BMP must be implemented. The Permittee shall also develop a plan to remove litter, floatable and debris material from the MS4, including proper disposal of waste removed from the system.
  - C. Standard Operating Procedures (SOPs) detailing good housekeeping practices to be employed at municipal facilities (that have the potential to discharge pollutants via stormwater runoff) and during municipal operations that may include, but not limited to, the following:
    - 1. Equipment washing;
    - 2. Street sweeping;
    - 3. Maintenance of municipal roads including public streets, roads, and highways, including but not limited to unpaved roads, owned, operated, or under the responsibility of the Permittee;
    - 4. Storage, use, and disposal of chemicals, Pesticide, Herbicide and Fertilizers (PHFs) and waste materials;
    - 5. Vegetation control, cutting, removal, and disposal of the cuttings;
    - 6. Vehicle fleets/equipment maintenance and repair;
    - 7. External Building maintenance, and
    - 8. Materials storage facilities and storage yards.
  - D. A program for inspecting municipal facilities for good housekeeping practices, including BMPs. The program shall include checklists and procedures for correcting noted deficiencies.
  - E. A training program for municipal facility staff in good housekeeping practices as outlined in the SOP developed pursuant to Part III.B.5.a.iii.
  - F. The Permittee shall include within the SWMPP the following information:
    - 1. The inventory of municipal facilities required by Part III.B.5.a.i;
    - 2. Evaluate and include a discussion of how effectiveness is measured for Part III.B.5.a. ii.
    - 3. Schedule for developing the SOP of good housekeeping practices required by Part III.B.5.a.iii.
    - 4. An inspection plan and schedule to include inspection frequency, checklists, and any other materials needed to comply with Part III.B.5.a.iv; and
    - 5. A description of the training program and training schedule to include training frequency required by Part III.B.5.a.v. c.

- G. The Permittee shall report each year in the annual report the following information:
  - 1. Any updates to the municipal facility inventory.
  - 2. An estimated amount of floatable material collected from the MS4 as required by Part III.B.5.a. ii.
  - 3. Any updates to the inspection plan
  - 4. The number of inspections conducted; and
  - 5. Any updates to the SOP of good housekeeping practices.
- H. The Permittee shall maintain the following and make it available upon request:
  - 1. Records of inspections and corrective actions, if any; and
  - 2. Training records including the dates of each training activity and names of personnel in attendance.
- 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/Wastewater Superintendent; Director of Community Affairs; Grants Coordinator

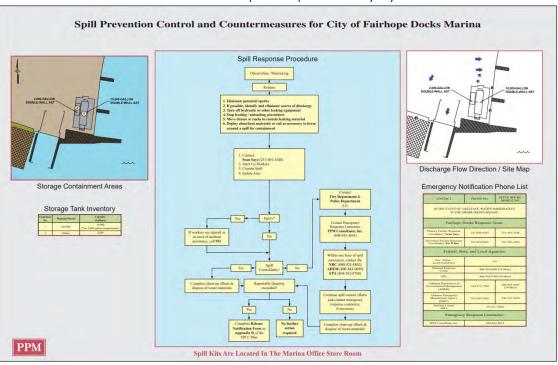


Fairhope Docks provides clean water stewardship by offering marine pump outs and following Clean Marina standards.

- Rationale Statement: The City of Fairhope has many departments within its own authority. All have some potential to impact stormwater. Those operated by Public Works are noted, City facilities include:
  - Mechanic Shop (AL0000324764)-Public Works- South Section Street
  - Wastewater Treatment Plant (AL0020842)-Water & Sewer Dept.
     North Section Street
  - C & D Landfill (Permit #02-07)-Public Works- South Section Street
  - Quail Creek Golf Course-QC Management-State Highway 181
  - Recreation Department Parks and Recreation Manager
    - o Founders Park / Maintenance Shop-Founders Drive
    - o Fairhope Soccer Complex / Maintenance Shop-Manley Road @ CR 13
    - o Volanta Sports Complex / Maintenance Shop-Volanta Avenue, North Greeno Road
    - o Stimpson Field-Morphy, Mershon & Young Street
  - Gas Department-South Section Street @ Public Works Building
  - Water and Sewer Department-South Section Street @ Public Works Building
  - Electric Department-South Section Street @ Public Works Building
  - Public Works / Recycle Facility / Transfer Station-South Section
     Street @ Public Works Building
  - Pecan Street building (offices / parking)-Pecan Street East
  - Greenhouse-Public Works-Nichols Avenue
  - Police Department-North Section Street
  - Volunteer Fire Department
    - o Station #1- 198 S. Ingleside Drive
    - o Station #2- 19875 Thompson Hall Road
    - o Station #3-8600 Highway 32 (Airport)
    - o Station #4 7752 Parker Road
  - City Hall / Civic Center-161 North Section Street
  - The Haven (Animal Shelter)-559 South Section Street
  - City Marinas:
    - o Fairhope Docks @ Sea Cliff Drive
    - o Municipal Pier no overnight docking

All department heads / directors are responsible for pollution prevention / good housekeeping in each respective department. Department heads are also responsible for periodic checks of their facility to ensure MS4 compliance. Compliance is also implemented through weekly or monthly staff meetings and training. The annual BMP Workshop is another venue used for staff education to encourage good municipal stormwater practices. 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 with the building housing a restaurant, and the lessee manages the day-use only marina. The Fairhope Docks offers boat slips and has a sewage pump out facility 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 SPCC plan is updated every 5 years.



Pictured: SPCC Plan for Fairhope Docks, last updated in 2023.

These City facilities operate under the following ADEM Permits:

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



#### Fairhope City Landfill 2019

The City of Fairhope Landfill is permitted by the Alabama Department of Environmental Management for residential, noncommercial use only. The building boom of the past several years has seen a dramatic increase in commercial construction debris coming from local contractors and commercial businesses.

Landfill use is directly controlled by municipal ordinances. These approved ordinances directly prohibit the disposal of construction and commercial debris into the city landfill. In order to protect the landfill and keep it open long term for city residents, these ordinances will now be firmly enforced. This will maintain the longevity and health of one of the cities greatest resources.

Your help is needed to keep our city landfill open; Thank you for helping to conserve this valuable resource for all residents.

#### City of Fairhope Landfill Ordinances

- The use of the Fairhope city landfill is hereby limited to the resident citizens within the city limits. Any such resident shall be allowed to use the city landfill without charge, provided said resident has a current decal affixed to his vehicle. Residents Only; Sticker on vehicle required. Code 1962, § 10-9; Ord. No. 525, § 3, 2-11-74
- No owner, building contractor, sub-contractor, agent, or materialman shall dispose of any
  construction site waste, rubbish, trash, solid waste and/or debris in the Fairhope
  municipal landfill. Construction debris, Contractors, and Commercial loads are not
  allowed into landfill. Ord. No. 958, § 2, 5-9-94
- 3. It shall further be the responsibility of said persons, to dispose of construction site rubbish, trash, solid waste, and/or debris at their own expense at the county landfill or another landfill of their choice but said waste shall not be disposed of at the Fairhope municipal landfill. Contractors and commercial loads must use county landfill only. Ord. No. 958, § 3, 5-9-94

City C&D Landfill is monitored by Public Works staff for compliance.

- BMPs / Mechanisms for compliance of pollution prevention / good housekeeping:
  - 1. Employee Meetings
  - 2. Environmentally Sensitive Pest Management
  - 3. Waste Management Program (Garbage, Trash, Recycling, HHW, Litter traps)
  - 4. Street Cleaning with Street Sweeper
  - 5. Stormwater 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

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. Annually, staff holds a BMP workshop which mentions illicit discharge reporting and encourages good stormwater practices.

#### 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 and will maintain certification through the State of Alabama Department of Agriculture and Industries as certified pesticide applicators. This specialized training ensures that pesticide, herbicide and fertilizer application to City property is done in accordance with manufacturer's recommendations in the most environmentally friendly method possible. Applicator license (3 year) certifications include:
  - 1. Public Works, Landscape Supervisor (JR) Permit# 2000246 Exp. 10/28/2026
  - 2. Parks & Recreation / Golf Course Grounds Supervisor (PW) Permit # 2004867 Exp. 10/28/2026

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 roadside 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. <a href="https://www.fairhopeal.gov/departments/public-works/streets-and-construction/mosquito-control">https://www.fairhopeal.gov/departments/public-works/streets-and-construction/mosquito-control</a>

Departments » Public Works » Streets and Construction »

# MOSQUITO CONTROL



#### You can now open a ticket with us through our Fairhope 311 ticket system.

Residents of Fairhope know that living with mosquitoes is a reality. This means we need to do things around homes and yards to reduce the chance of mosquito bites or mosquito-borne illnesses such as Encephalitis or West Nile Virus.

When a resident calls us about a mosquito complaint, we usually come out and walk around the yard. Within one (1) to one hundred fifty (150) feet we will find the source of the problem. Most all times, we find standing water.

The easiest thing to rid your problem is what is commonly called "source control" or eliminating places for the mosquito to lay eggs and grow to a biting adult. Keep your property free of standing water. Make sure any standing water, no matter how small (A Magnolia leaf is known to have enough water to breed Mosquitoes) is changed every three days. On the fourth day, the eggs are hatching and you have a biting mosquito. Empty stagnant water from outside containers. Keep in mind that if .01"-6" stays stagnate, you have created a breeding spot for mosquitos. If you collect rainwater for use around the garden, screen the opening or keeping the water agitated can be the answer. Small or large ponds can be aerated which creates a ripple on the water. In this moving, agitated environment, mosquitos are least likely to breed.

The City of Fairhope Public Works Department has this link to a great publication from the Alabama Cooperative Extension Service to help you learn about easy to do things to reduce mosquitoes in our city.

If emptying the pond water is not an option, consider Gambusia Fish. These fish are natural predators for the larvae. Martins and Bats are also natural predators for the mosquito.

There are also many pesticide alternatives from home treatments to commercial services. If you choose to use pesticide treatments, read the label on any and all home treatments to avoid exposure of family members, pets and useful insects to harmful chemicals. Follow the manufacturer's instructions for use and disposal.

#### City of Fairhope Spray Program

The applications of pesticides are made only when necessary by determining a need and showing justification for spray action. Generally the spray treatment for mosquitoes starts after several complaints, weather temperature or rainfall. Standard practice for the mosquito technician before he begins spraying is to treat areas with larvicide tablets for source control. We do use Gambusia fish or larvicide tablets. We treat drainage ditches, low lying ponds or other areas where water stands. The normal spray months for the adult mosquito are from May to the first week of November. We spray all streets owned by the City of Fairhope in the city limits of Fairhope once a week for mosquitos. The spray times are when the mosquito is most likely to be affected, in the early morning hours and in the afternoon hours each day. Fairhope currently sprays a cedar oil based product which is a chemical free solution. Cedar oil is an environmental friendly product that can be used around humans, pets and wildlife. We also keep a "No Spray List" of residents who choose not to have the service near there address. This list is compiled into a log and kept in the truck with the technician. If a citizen wishes to be added to the "No Spray List" they should contact Public Works at 251-928-8003.

Cedar Oil MSDS Sheet [PDF]

Mosquito control information from City of Fairhope website, Public Works page.

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

a. *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 up 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 Springs 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)
- b. Litter Booms / Litter Interceptors: In 2022, City of Fairhope secured a contract with Osprey Initiative to install a litter boom in the Winn Dixie Pond (city owned), a regional detention area of Cowpen Creek. The boom was installed in October 2022 and is performing litter collection at least through the end of 2023. For 2024, an expansion of this project will allow for 12 litter interceptors to be installed in drains around Fairhope, including the Stack Gully, Big Mouth Gully, and Cowpen Creek Watersheds. A GOMESA grant has been awarded to Fairhope (September 2023) for procurement of this service in 2024. As part of the litter boom / litter interceptor program, litter collected is being profiled and weighed. This information will be provided in the MS4 Annual Reports.

BMP # 4: Street Sweeper: The City of Fairhope Public Works Department owns two street sweepers which are part of the City of Fairhope litter removal program. 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.

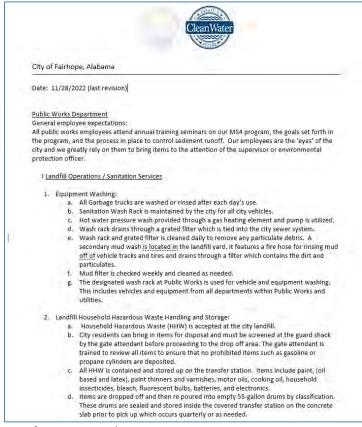
BMP # 5: Project work by City Employees: City departments are required to obtain City of Fairhope construction / land disturbance permits (including any necessary State and Federal permits) for planned projects; City projects are held to the same standards as other projects. The Code Enforcement Officer (Planning and Zoning Department) and the Building Inspectors (Building Department) and right of way inspectors 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 Inspectors (three as of November 2023) enforce erosion and sediment control on city right of way projects as well as other utility projects on the right of way or public property. City of Fairhope crew leaders of right of way and utility work are offered training at an annual erosion and sediment control internal workshop hosted by the Planning Department, Building Department and Public Works. All inspectors (Code Enforcement, Building and Right of Way) are required to acquire and maintain QCI certification.

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 Wastewater Treatment plant. The city currently has eight designated wash rack facilities, which discharge into the Wastewater 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), at the Police Department (107 N. Section Street) and at each of the four fire stations. 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.

# BMP #8: SOP For Municipal Activities:

In 2016, Public Works created a Standard Operating Procedure for their activities:



SOP for Municipal Activities Page 1

 e. Any spillage is contained by plastic liners under the drums, and any overflow would be captured by the built-in drainage system which is fully captured by the city sewage system.

#### 3. Tires:

- a. Residents may bring in tires and are charged a nominal fee.
- 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:

- Litter control is maintained daily and weekly by walk through inspections by the certified landfill operator(s).
- Litter collection is maintained by work parties (inmates) collecting misplaced debris and litter weekly.
- 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 <u>City</u> operates two street sweepers. The sweepers have a fixed route and schedule.

#### 1. Public Works sweeping plan:

- 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, <u>Colonial</u> acres, <u>Dogwood</u>, 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, <u>December</u> and January and once between November and April or as needed.
- The sweeper dumps litter after sweeping on the city of Fairhope solid waste transfer station for disposal into a solid waste landfill.

SOP for Municipal Activities Page 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.
- 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

#### 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.
  - Use is monitored by trained and certified employees for approved application procedures.
  - 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.

#### Measurable Goals

One Year Goals:

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 2024

#### 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 2024

Two – Five Year Goals

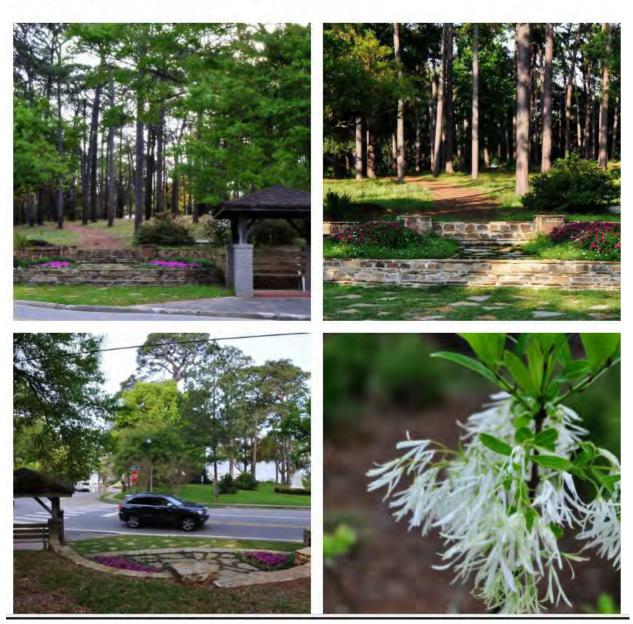
- 3. Recertify Commercial Pesticide Applicators Certification:
  - a. Landscape Supervisor Due: 10/28/2026
  - b. Parks and Recreation / Golf Course Supervisor Due: 10/28/2026



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

# KNOLL PARK - FAIRHOPE, ALABAMA

Espalier worked with the City of Fairhope to improve an existing city park. Knoll Park is a sand hill long leaf pine habitat that has been virtually untouched since the late 1800's when it was donated to the city for park land. Perched on the bluff overlooking Mobile Bay, Knoll Park is passed by most visitors and residents of Fairhope regularly. Espalier provided a border treatment concept and planting design using only native plants. This better defines how the park transitions to the streets that surround it on all sides. New plantings were strategically placed to avoid disturbance of the numerous naturally occurring wildflower population. Some pedestrian circulation items were also addressed. Mainly the creation of a stone entry feature into the park to solve the eroding foot path that previously existed. Services provided were planting design, irrigation design, hardscape design and construction layout and management. Espaller was awarded the 2015 Fairhope Seautification Award for this project.



Natural parks, including Knoll Park, are essential to preservation in Fairhope. Native landscaping is becoming more prominent in city landscapes and parks. This is just one way Fairhope strives to be a good steward and example for the community. *Source: www.espalierdesign.com*