



Alabama Department of Environmental Management  
adem.alabama.gov  
1400 Coliseum Blvd. 36110-2400 ■ Post Office Box 301463  
Montgomery, Alabama 36130-1463  
(334) 271-7700 ■ FAX (334) 271-7950

November 30, 2017

**Certified Mail # 91 7108 2133 3936 7157 6114**

Honorable Kenneth E. Gulley  
Mayor, City of Bessemer  
1700 3<sup>rd</sup> Avenue North  
Bessemer, Alabama 35020

RE: Municipal Separate Storm Sewer System (MS4) Individual Phase I Permit  
NPDES Number ALS000022  
City of Bessemer MS4  
Jefferson County (073)

Dear Mayor Gulley:

The Department has made a final determination to issue NPDES Permit No. ALS000022 to the City of Bessemer for discharges from its MS4. The NPDES Permit Number ALS000022 will be effective December 1, 2017 and expire on November 30, 2022.

The Department notified the public of its tentative determination to issue NPDES Permit No. ALS000022 on June 7, 2017. Interested persons were provided the opportunity to submit comments on the Department's tentative decision through July 7, 2017. In accordance with ADEM Admin Code r. 335-6-6-.21(7), a response to all comments received during the public comment period are provided with the enclosed permit.

The City of Bessemer is responsible for compliance with all provisions of the permit including, but not limited to, the performance of any monitoring, the submittal of any reports, and the preparation and implementation of any plans required by the permit.

Please note that On October 22, 2015, EPA finalized the National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule (Federal Register Vol. 80 No. 24). As required by this rule, the Department has included, in this permit, a requirement that on and after December 21, 2020, annual reports shall be submitted to the Department electronically in a prescribed manner acceptable to the Department.

If you have questions concerning this permit, please contact Marla Smith either by email at [mssmith@adem.alabama.gov](mailto:mssmith@adem.alabama.gov) or by phone at 334-270-5616.

Sincerely,

Jeffery W. Kitchens, Chief  
Stormwater Management Branch  
Water Division

JWK/mss

File: FPER  
Enclosure: Permit

cc: Ms. Kacy Sable /Environmental Protection Agency (email)  
Mr. Freddie Freeman, City of Bessemer (email)





# NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

PERMITTEE: CITY OF BESSEMER

AREA OF COVERAGE: CORPORATE BOUNDARIES OF THE CITY OF BESSEMER

PERMIT NUMBER: ALS000022

RECEIVING WATERS: WATERBODIES WITHIN THE CORPORATE BOUNDARIES OF  
CITY OF BESSEMER

*In accordance with and subject to the provisions of the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§1251-1378 (the "FWPCA"), the Alabama Water Pollution Control Act, as amended, Code of Alabama 1975, §§ 22-22-1 to 22-22-14 (the "AWPCA"), the Alabama Environmental Management Act, as amended, Code of Alabama 1975, §§22-22A-1 to 22-22A-15, and rules and regulations adopted thereunder, and subject further to the terms and conditions set forth in this permit, the Permittee is hereby authorized to discharge into the above-named receiving waters.*

ISSUANCE DATE: NOVEMBER 30, 2017

EFFECTIVE DATE: DECEMBER 1, 2017

EXPIRATION DATE: NOVEMBER 30, 2022

Alabama Department of Environmental Management

Table of Contents

Part I. Applicability .....4

    A. Permit Area.....4

    B. Authorized Discharges.....4

    C. Prohibited Discharges .....4

Part II. Storm Water Pollution Prevention & Management Programs .....5

    A. Storm Water Management Program .....5

    B. Storm Water Program Elements and Requirements.....5

        1. Storm Water Collections System Operations .....5

        2. Public Education and Public Involvement on Storm Water Impacts .....6

        3. Illicit Discharge Detection and Elimination (IDDE).....8

        4. Construction Site Storm Water Runoff Control .....9

        5. Post-Construction Storm Water Management in New Development and Re-Development .....12

        6. Spill Prevention and Response .....14

        7. Pollution Prevention/Good Housekeeping for Municipal Operations.....14

        8. Application of Pesticides, Herbicides, and Fertilizers (PHFs).....16

        9. Oils, Toxics, and Household Hazardous Waste Control .....17

        10. Industrial Storm Water Runoff.....17

    C. Legal Authority.....18

    D. SWMPP Plan Review and Modification .....18

    E. Impaired Waters and Total Maximum Daily Loads (TMDLs) .....19

    F. Responsibilities of Permittee .....20

III. Monitoring and Reporting .....20

    A. Monitoring Locations .....20

    B. Monitoring Parameters and Frequency .....20

    C. Sample Type, Collection and Analysis .....21

IV. Annual Reporting Requirements .....21

Part V. Standard and General Permit Conditions .....23

    A. Certification and Signature of Reports .....23

    B. Submittals .....23

    C. Retention of Records .....23

    D. Duty to Comply .....23

Table of Contents (continued)

E. Civil and Criminal Liability .....	23
F. Duty to Reapply .....	24
G. Need to Halt or Reduce an Activity Not a Defense .....	24
H. Duty to Mitigate.....	24
I. Duty to Provide Information .....	24
J. Other Information .....	24
K. Signatory Requirements.....	24
L. Oil and Hazardous Substance Liability .....	25
M. Property and Other Rights.....	25
N. Severability.....	25
O. Compliance with Statutes and Rules .....	25
P. Proper Operations and Maintenance .....	25
Q. Monitoring Records.....	25
R. Monitoring Methods .....	25
S. Right of Entry and Inspection .....	25
T. Additional Monitoring by the Permittee .....	26
U. Permit Modification and Revocation .....	26
V. Termination of Coverage for a Single Permittee .....	27
W. Modification of Storm Water Management Program .....	27
X. Changes in Monitoring Outfalls .....	27
Y. Definitions .....	28

## **PART I Applicability**

### **A. *Permit Area***

This permit applies to the corporate boundaries of the City of Bessemer that are regulated by the Permittee and discharge to the Permittee's Municipal Separate Storm Sewer System (MS4).

### **B. *Authorized Discharges***

1. This permit authorizes all existing or new storm water point source discharges to waters of the State of Alabama from those portions of the (MS4s) owned or operated by the Permittee. Discharge of pollutants shall be reduced to the Maximum Extent Practicable (MEP), shall not cause, nor contribute to, violations of Alabama Water Quality Standards, and shall be in compliance with Total Maximum Daily Loads (TMDLs) where applicable.
2. This permit authorizes the following non-storm water discharges provided that they do not cause or contribute to a violation of water quality standards and provided that they have been determined not to be substantial contributor pollutants by the Permittee or the Department:
  - a. Water line flushing
  - b. Landscape irrigation (not consisting of treated, or untreated wastewater unless authorized by the Department)
  - c. Diverted stream flows
  - d. Uncontaminated ground water infiltration
  - e. Uncontaminated pumped groundwater
  - f. Discharges from potable water sources
  - g. Foundation and footing drains
  - h. Air conditioning drains
  - i. Irrigation water (not consisting of treated, or untreated, wastewater unless authorized by the Department)
  - j. Rising ground water
  - k. Springs
  - l. Water from crawl space pumps
  - m. Lawn watering runoff
  - n. Individual residential car washing, to include charitable carwashes
  - o. Residual street wash water
  - p. Discharge or flows from firefighting activities (including fire hydrant flushing)
  - q. Flows from riparian habitats and wetlands
  - r. Dechlorinated swimming pool discharges

### **C. *Prohibited Discharges***

The following discharges are not authorized by this permit:

1. Discharges that are mixed with sources of non-storm water, unless such non-storm water discharges are in compliance with a separate NPDES permit or where those dischargers have been determined not to represent significant sources of pollution, as identified by, and in compliance with, Part I.B.2;
2. Discharges of materials resulting from a spill, except emergency discharges required to prevent imminent threat to human health or to prevent severe property damage, provided reasonable and prudent measures have been taken to minimize the impact of the discharges; and

3. The discharge of sanitary wastewater through cross connections or other illicit discharges through the MS4 is prohibited.

## **PART II Storm Water Pollution Prevention and Management Programs**

### ***A. Storm Water Management Program (SWMP)***

1. The Permittee is required to develop, revise, implement, maintain and enforce a storm water management program (SWMP) 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 Part 122.26. These requirements shall be met by the development and implementation of a storm water management program plan (SWMPP) which addresses the best management practices (BMPs), control techniques and systems, design and engineering methods, public participation and education, monitoring, and other appropriate provisions designed to reduce the discharge of pollutants from the MS4 to the 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 program elements referenced in Part II.B. to include the following:
  - a. A map of the Permittee's MS4 corporate boundaries;
  - b. The BMPs that will be implemented for each control measure. Low impact development (LID)/green infrastructure (GI) shall be considered where feasible. Information on LID/GI is available on the following websites: <http://www.adem.alabama.gov/programs/water/waterforms/LIDHandbook.pdf> and <http://epa.gov/polwaste/green/index.cfm>;
  - c. The measureable goals for each of the program elements outlined in Part II.B.;
  - d. The proposed schedule – including interim milestones, as appropriate, inspections, and the frequency of actions needed to fully implement each program element; and,
  - e. The person and/or persons responsible for implementing or coordinating the BMPs for each separate program element.
4. Once the SWMPP is acknowledged by ADEM, activities and associated schedules outlined by the SWMPP or updates to the SWMPP are conditions of this permit.
5. Unless otherwise specified in this permit, the Permittee shall be in compliance with the conditions of this permit by the effective date.

### ***B. Storm Water Program Elements and Requirements***

- i. **Storm Water Collection System Operations**
  - a. Structural Controls
    - i. For Permittee owned/maintained structural controls, the structural controls shall be operated in a manner to reduce the discharge of pollutants, to the MEP;
    - ii. For Permittee owned/maintained structural controls, the Permittee shall include in the SWMPP and implement the following:
      1. Maintain a map of the structural controls;

2. Inspect existing and newly constructed structural controls on a semi-annual basis, at a minimum;
  3. Develop a standard operating procedure (SOP) or inspection checklist for structural control inspection and maintenance procedures;
  4. Stabilization and re-vegetation of eroded areas as needed; and
  5. Floatables, litter, sediment and debris, in structural controls, shall be removed as needed.
- iii. The Permittee shall maintain an inventory of structural controls, and maintain a tracking system for inspections and maintenance of the control structures; and
- iv. The Permittee shall report each year in the annual report the following structural control information:
1. The number of inspections performed on structural controls, to include follow-up inspections. The inspection documentation (i.e. checklist) shall be made available upon request;
  2. A summarization of the maintenance activities performed on structural controls;
  3. The estimated amount of floatable, litter, sediment and debris that was removed, if applicable;
  4. Copies of any contractual agreements for maintenance activities if not performed by the Permittee, if requested by the Department. The contractual agreement should specify maintenance activities performed and schedule; and
  5. Updated structural controls map of Permittee-owned structural controls added during the preceding year with geographic coordinates.

**2. Public Education and Public Involvement on Storm Water Impacts**

- a. The Permittee must further develop and implement a public education and outreach program to inform the community about the impacts from storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff to the MEP. The Permittee shall continuously implement this program in the areas served by the MS4.
- b. The Permittee shall include within the SWMPP the methods for how it will:
1. Seek and consider public input in the development, revision and implementation of the SWMPP;
  2. Identify targeted pollutant sources the Permittee's public education program is intended to address;
  3. Plans to specifically address the reduction of litter, floatables and debris from entering the MS4, that may include, but is not limited to:
    - a. Labeling storm drain inlets and catch basins with "no dumping" message; and
    - b. Posting signs referencing local codes that prohibit littering and illegal dumping at designated public access points to open channels, creeks, and other relevant waterbodies
  4. Inform and involve individuals and households about the steps they can take to reduce storm water pollution; and
  5. Inform individuals and groups on how to become involved in the storm water program (with activities such as local stream and lake restoration activities). The target audiences and subject areas for the education program that are likely to have

significant storm water impacts should include, but is not limited to, the following:

- i. 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 storm water flows into surface water from impervious surface; and
    - c. Source control BMPs in areas of pet waste, vehicle maintenance, landscaping and rain water reuse.
    - d. Impacts of illicit discharges and how to report them.
  - ii. General Public and Businesses to include Home-Based and Mobile Businesses
    - a. BMPs for use and storage of automotive chemicals, hazardous cleaning supplies, carwash soaps and other hazardous materials;
    - b. Impacts of illicit discharges and how to report them.
  - iii. Homeowners, Landscapers, Property Managers and City Personnel
    - a. Landscape techniques that protect water quality;
    - b. BMPs for use and storage of pesticides, herbicides and fertilizers;
    - c. BMPs for carpet cleaning and auto repair and maintenance; and
    - d. Storm water pond maintenance.
  - iv. Engineers, City Personnel, Land Use Planners, Contractors and Developers
    - a. Impacts of increased storm water flows into receiving water bodies;
    - b. Technical standards for construction site sediment and erosion control;
    - c. Storm water treatment and flow control BMPs; 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 storm water treatment and flow control BMPS.
6. Evaluate the effectiveness of the public education and public involvement program; and
  7. Organize and participate in activities that target the removal of litter, floatables, and debris from area waterways. The minimum number and the waterways these activities will target will be addressed in the SWMPP.
- c. The Permittee shall report each year in the annual report the following information:
    - 1) A description of the activities used to involve groups and/or individuals in the development and implementation of the SWMPP;
    - 2) A description of the individuals and groups targeted and how many groups and/or individuals participated. If exact participation is not readily quantifiable, an estimation will be sufficient;
    - 3) A description of the communication mechanisms or advertisements used to inform the public and the number of applications that were distributed (i.e. number of printed brochures, copies of newspapers, workshops, public service announcements, etc);
    - 4) Results of the evaluation as required in Part II.B.2.b.6.; and
    - 5) A list of the activities required in Part II.B.2.b.7 and the estimated amount of litter, floatables and debris removed during each activity.
  - d. The current SWMPP and latest annual report should be posted on the Permittee's website.



### 3. Illicit Discharge Detection and Elimination (IDDE)

- a. The Permittee shall 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:
  - 1) The development and annual update of an MS4 map. An initial map shall be provided in the SWMPP with updates provided each year in the annual report. The map shall include, at a minimum:
    - a. The latitude/longitude of all known major outfalls;
    - b. The names of all waters of the State within the MS4 area that receive discharges from these major outfalls; and,
  - 2) To the extent allowable under State law, an ordinance or other regulatory mechanism that prohibits non-storm water discharges to the MS4. The ordinance or other regulatory mechanism shall:
    - a. Include escalating enforcement procedures and actions;
    - b. 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 (10) working days is not possible, 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; and
    - c. Provide for the review of the IDDE ordinance and update as necessary.
  - 3) 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 twenty (20) percent of the major outfalls at least once per year with all (100 percent) major outfalls screened at least once per five years. Also, 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 flow, from an unidentified source, is observed during the dry weather screening of an outfall, then the Permittee shall follow the sampling protocol as outlined in the SWMPP and developed in accordance with EPA's guidance manual, *Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments*, Center for Watershed Protection, October, 2004.
  - 4) 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-storm water.
  - 5) Procedures for eliminating an illicit discharge as outlined in the SWMPP;
  - 6) Procedures to notify ADEM of a suspect illicit discharge entering the Permittee's MS4 from an adjacent MS4 as outlined in the SWMPP;
  - 7) A mechanism for the public to report illicit discharges discovered within the Permittee's MS4 and procedures for appropriate investigation of such reports;
  - 8) A training program for appropriate personnel on identification, reporting, and corrective action of illicit discharges; and

- 9) The Permittee shall post on its website the ordinance or other regulatory mechanism as required by Part II.B.3.a.2 of this Permit.
- b. The Permittee shall report each year in the annual report the following information:
- 1) List of outfalls observed during the dry weather screening of the current year and a list of the outfalls to be dry weather screened during the upcoming year;
  - 2) Updated MS4 map(s), if necessary;
  - 3) Copies of the IDDE ordinance or other regulatory mechanism or provide a hyperlink for the ordinance or regulatory mechanism location on the Permittee's website; and,
  - 4) The number of illicit discharges investigated, any associated sampling results, and the summary of corrective actions taken to include dates and timeframe of response.

**4. Construction Site Storm Water Runoff Control**

- a. The Permittee shall further develop/revise, implement and enforce an ongoing program to reduce, to the maximum extent practicable, the pollutants in any storm water runoff to the MS4 from qualifying construction sites. The program shall include the following, at a minimum:
- 1) Procedures to require all applicable construction sites to obtain coverage under ADEM NPDES General Permit ALR10000 or other applicable NPDES permits;
  - 2) To the extent allowed under State law, an ordinance or other regulatory mechanism to require effective erosion and sediment controls on qualifying construction sites, as well as sanctions to ensure compliance;
  - 3) 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;
  - 4) Procedures for site plan review to ensure the selection of effective erosion and sediment controls 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") and are appropriate for site conditions. Site plan review may be prioritized based on criteria outlined in the Permittee's SWMPP and may include, but is not limited to, size and location within priority watersheds. The plan review process will also consider potential water quality impacts;
  - 5) A mechanism for the public to report complaints regarding pollution discharges from construction sites;
  - 6) Inspection of sites to verify use and proper maintenance of appropriate BMPs. Inspections of construction sites shall be performed in accordance with the frequency specified in the table below:

Site	Inspection Frequency
Priority Construction Sites (Defined in Part V.Y.)	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 construction sites not meeting the criteria specified above.	At a minimum, inspections must occur every two months

<p>*In evaluating the threat to water quality, the following factors must be considered: soil erosion potential; site slope; project size and type; sensitivity of receiving waterbodies; proximity to receiving waterbodies; non-storm water discharges; past record of non-compliance by the operators of the construction site; and other factors deemed relevant to the MS4.</p>
--

- 7) Training for the Permittee's construction site inspection staff in the identification of appropriate construction best management practices (Example: QCI training in accordance with ADEM Admin Code. r. 335-6-12 or the Alabama Construction Site General Permit);
  - 8) Development of a construction site inspection checklist;
  - 9) Implementation of an enforcement response plan (ERP), which sets out the Permittee's potential responses to violations through progressively stricter actions as needed to achieve compliance. The ERP must include a system for tracking formal actions and ADEM referrals. Types of enforcement actions may include, but not limited to the following:
    - a. Verbal Warnings—Verbal warnings are primarily consultative in nature and must specify the nature of the violation and required corrective action;
    - b. Written Notices—Written Notices must stipulate the nature of the violation and the required corrective action, with deadlines for taking such action; and
    - c. Escalated Enforcement Measures—Citations, stop work orders, withholding plan approvals/authorizations, monetary penalties, or additional measures to address persistent non-compliance, repeat or escalating violations or incidents of major environmental harm.
  - 10) A program to make available a list of education and training materials and resources to construction site operators in the appropriate application and maintenance of erosion and sediment controls; and
  - 11) The Permittee shall post on its website the ordinance or other regulatory mechanism required by Part II.B.4.a.2.
- b. The Permittee shall include within the SWMPP the following information:
- 1) Procedures for site plan reviews required by Part II.B.4.a.4;
  - 2) A site inspection plan meeting the requirements of Part II.B.4.a.6;
  - 3) Plans for the training of MS4 site inspection staff as required by Part II.B.4.a.7;
  - 4) A copy of the construction site inspection checklist as required by Part II.B.4.a.8;
  - 5) The ERP as required by Part II.B.4.a.9;
  - 6) Procedures and schedule for making available a list of education and training materials and resources to construction site operators in the appropriate application and maintenance of erosion and sediment controls required by Part II.B.4.a.10.
- c. The Permittee shall report each year in the annual report the following information:
- 1) A copy or a hyperlink to the ordinance or regulatory mechanism location on the Permittee's website;
  - 2) List of all active qualifying construction sites within the MS4 to include the inspections as required by Part II.B.4.a.6; and
  - 3) A summary of the following:

- a. Number of construction site inspections;
  - b. Number of formal enforcement actions and description of violations;
  - c. Number of construction site runoff complaints received.
  - d. Number of new staff trained and follow-up training provided to existing staff.
- d. The Permittee shall maintain the following information and make it available upon request:
- 1) Documentation of all inspections conducted of construction sites. The inspection documentation shall include, at a minimum, the following:
    - a. Facility type;
    - b. Inspection date;
    - c. Name and signature of inspector;
    - d. Location of construction project;
    - e. Owner/operator information (name, address, phone number, fax, and email);
    - f. Description of the storm water 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
    - g. Photographic documentation of any issues and/or concerns.
  - 2) Documentation of enforcement actions taken at construction sites to include, at a minimum, the following:
    - a. Name of owner/operator;
    - b. Location of construction project;
    - c. Description of violation;
    - d. Required schedule for returning to compliance;
    - e. Description of enforcement response used, including escalated responses if repeat violations occur;
    - f. Accompanying documentation of enforcement responses (e.g. notices of non-compliance, notices of violations, etc.); and
    - g. Any referrals to different Departments or Agencies.
  - 3) Records of public complaints including:
    - a. Date, time and description of the complaint;
    - b. Location of subject construction sites; and
    - c. Identification of any actions taken (e.g. inspections, enforcement, corrections). Identifying information must be sufficient to cross-reference inspection and enforcement records.
  - 4) Educational and Training Documentation for Construction Site Operators
    - a. List of education and training materials and resources

## 5. Post-Construction Stormwater Management in Qualifying New Development and Re-Development

The Permittee must develop/revise and implement a program, within 365 days from the effective date of this permit, to address the discharge of pollutants in post-construction storm water runoff to the MS4 from qualifying new development and re-development. 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.

- a. The Permittee shall develop/revise and implement project review and enforcement procedures for qualifying new development and redevelopment projects, to the maximum extent practicable. Specifically, the Permittee shall:
  - 1) Require landowners and developers to, the MEP, implement systems of appropriate structural and/or non-structural BMPs designed to reduce the discharge of pollutants, which may include, but is not limited to, the following:
    - a. Minimize the amount of impervious surfaces;
    - b. Preserve and protect ecologically sensitive areas that provide water quality benefits;
    - c. Provide vegetated buffers along waterways, and reduce discharges to surface waters from impervious surfaces such as parking lots;
    - d. Implement policies to protect trees, native soils and other vegetation; and
    - e. Minimize topsoil stripping and compacted soils where feasible.
  - 2) Require landowners and developers to develop and maintain best management practices to ensure, to the maximum extent practicable, that post-construction runoff mimics pre-construction hydrology of the site. A 1.1 inch rainfall over a 24-hour period preceded by a 72-hour antecedent dry period shall be the basis for the design and implementation of post construction BMPs;
  - 3) Encourage 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 website:<http://www.adem.alabama.gov/programs/water/waterforms/LIDHandbook.pdf> and <http://epa.gov/nps/lid>;
  - 4) To the extent allowed under State law, adopt or amend an ordinance or other regulatory mechanism to ensure the applicability and enforceability of post-construction BMPs at all new qualifying development and redevelopment projects;
  - 5) Require the submittal of a post-construction BMP plan, for review, as outlined in the SWMPP. The post-construction BMP plan review process may be integrated with the construction plan review process under Section II.B.4.a.4;
  - 6) Require the submittal of an 'as built' certification of the post-construction BMPs within 120 days of completion;
  - 7) Perform and/or require the performance of, at a minimum, an annual post-construction inspection to ensure that design standards are being met and require corrective actions to poorly functioning or inadequately maintained post-construction BMPs. The Permittee shall document its post-construction inspection. Such documentation shall include, at a minimum:
    - a. Facility type
    - b. Inspection date

- c. Name and signature of inspector
  - d. Site location
  - e. Owner information (name, address, phone number, fax, and email)
  - f. Description of the storm water 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;
  - g. Photographic documentation of all critical storm water BMP components;
  - h. Specific maintenance items or violations that need to be corrected by the owner/operator of the storm water control or BMP; and
  - i. Maintenance agreements for long-term BMP operations and maintenance.
- 8) 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;
- 9) Require and/or perform adequate long-term operation and maintenance of post-construction BMPs, including one or more of the following, as applicable:
- a. The developer's signed statement accepting responsibility for maintenance until the maintenance responsibility is legally transferred to another party; and/or
  - b. Written conditions in the sales or lease agreement that require the recipient to assume responsibility for maintenance; and/or
  - c. Written conditions in project conditions, covenants and restrictions for residential properties assigning maintenance responsibilities to a home owner's association, or other appropriate group, for maintenance of structural and treatment control management practices; and/or
  - d. Any other legally enforceable agreement that assigns permanent responsibility for maintenance of structural or treatment control management practices.
- b. The Permittee shall include within the SWMPP the following information:
- 1) Procedures to develop, implement and enforce systems of appropriate structural and/or non-structural BMPs;
  - 2) Procedures to develop, implement and enforce performance standards;
  - 3) Procedures for encouragement of the utilization of LID/green infrastructure practices;
  - 4) Procedures to ensure compliance with the ordinance or regulatory mechanism, including the sanctions and enforcement mechanisms the Permittee will use to ensure compliance. If an ordinance or regulatory mechanism needs to be developed, then the Permittee must provide a timeline for the development of the ordinance and/or regulatory mechanism;
  - 5) Procedures for post-construction inspections, to include tracking and enforcement;
  - 6) Procedures to ensure adequate long-term operation and maintenance of BMPs; and,
  - 7) Development of an inventory of post-construction structural controls.
- c. The Permittee shall report each year in the annual report the following information:

- 1) Provide a hyperlink for the ordinance or regulatory mechanism location on the Permittee's website;
- 2) A list of the post-construction structural controls installed and inspected during the permit year;
- 3) Updated inventory of post-construction structural controls including those owned by the Permittee;
- 4) Number of inspections performed on post-construction structural controls; and,
- 5) Summary of enforcement actions.

## **6. Spill Prevention and Response**

- a. The Permittee shall further develop/revise and implement a program to prevent, contain, and respond to spills that may discharge into the MS4. The Permittee must, at a minimum:
  - 1) Investigate, respond, and conduct response actions or coordinate w/other agencies that may provide response actions as outlined in the SWMPP;
  - 2) Develop a mechanism to track spills, response, and cleanup activities for all spills;
  - 3) Use GIS or acceptable mapping scheme to identify spill locations, locations for inspections, and chronic problem areas;
  - 4) Implement a spill prevention/spill response plan;
  - 5) Provide training of appropriate personnel in spill and response procedures and techniques to mitigate pollutant discharges from spills to the MS4; and
  - 6) Establish procedures to ensure that all spills are able to be promptly reported to appropriate authority.
- b. The Permittee shall include within the SWMPP the following information:
  - 1) The spill prevention/spill response plan; and
  - 2) Procedures to provide training of personnel in spill prevention and response.
- c. The Permittee shall report each year in the annual report the following information:
  - 1) Summary of spills occurring during the reporting year, to include the following, at a minimum:
    - a. Location;
    - b. Spill Substance (i.e. fuel, oil, etc);
    - c. Photographs (Spill and After clean-up) to be made available upon request; and
    - d. Incident dates and time to resolution, including any enforcement actions taken and their result.
  - 2) Documentation of employee training as required by Part II.B.6.b.2
    - a. Title of Training Presentations; and
    - b. Dated Attendance Sheets.

## **7. Pollution Prevention/Good Housekeeping for Municipal Operations**

- a. The Permittee shall further develop/revise, implement, and maintain a program that will prevent or reduce the discharge of pollutants in storm water run-off from municipal operations to the MEP. The program elements shall include, at a minimum, the following:

- 1) An inventory of all municipal facilities, including municipal facilities that have the potential to discharge pollutants via storm water runoff;
  - 2) Develop and implement a short and long term strategy and program for the removal of trash from the waterways and tributaries in the permitted area in such a manner to quantify the removal of trash per year, which shall be included in the annual report. These strategies shall be included in the Permittee's SWMPP and shall be updated as necessary. This program shall address the following, at a minimum:
    - a. Direct removal of trash from waterbodies;
    - b. Direct removal of trash from the MS4;
    - c. Direct removal of trash prior to entry to the MS4;
    - d. Prevention through disposal alternatives; and
    - e. Prevention through waste reduction practices, additional enforcement, and/or initiatives.
  - 3) Require the following measures to be implemented in the public right of way for any event or wherever it is anticipated that substantial quantities of trash or litter may generated:
    - a. Arrangement for temporary protection of preventative measures to the catch basins, where feasible, and
    - b. Provide proper disposal of trash receptacles, cleanup of catch basins, as needed, and grounds of the event area within one business day subsequent to the event.
  - 4) Ensure that trash receptacles, or similar trash capturing devices are provided and maintained in areas identified as high trash generated areas;
  - 5) A Standard Operating Procedures (SOP) detailing good housekeeping practices to be employed at appropriate municipal facilities and during municipal operations that may include, but not limited to, the following:
    - a. Equipment washing;
    - b. Street sweeping;
    - c. Maintenance of municipal roads owned, operated, or under the responsibility of the Permittee;
    - d. Storage and disposal of chemicals and waste materials;
    - e. Vegetation control, cutting, removal, and disposal of the cuttings;
    - f. Vehicle fleets/equipment maintenance and repair;
    - g. External Building maintenance; and
    - h. Materials storage facilities and storage yards.
  - 6) A program for inspecting municipal facilities, to include municipal maintenance shops and equipment yards, for good housekeeping practices, including BMPs. The program shall include checklists and procedures for correcting noted deficiencies;
  - 7) A training program for municipal facility staff in good housekeeping practices as outlined in the SOP developed pursuant to Part II.B.7.a.(5); and
  - 8) The Permittee shall assess the water quality impacts for those flood management projects owned, operated, or the responsibility of the Permittee. The feasibility of retro-fitting existing structural control devised to provide additional pollutant removal from the storm water shall be evaluated.
- b. The Permittee shall include within the SWMPP the following information:



- 1) The inventory of municipal facilities required by Part II.B.7.a.(1);
- 2) Schedule for developing the SOP of good housekeeping practices required by Part II.B.7.a.(5);
- 3) An inspection plan and schedule, including checklists and any other materials needed to comply with Part II.B.7.a.(6); and
- 4) A description of the training program and training schedule required by Part II.B.7.a.(7).

c. 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 II.B.7.a.(2-4);
- 3) Any updates to the inspection plan;
- 4) Any updates to the SOP of good housekeeping practices; and
- 5) Summary of inspection reports of municipal facilities

d. The Permittee shall maintain the following information 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 activities and names of personnel in attendance.

## 8. Application of Pesticide, Herbicide, and Fertilizers (PHFs)

a. For the *Application of Pesticide, Herbicide, and Fertilizers (PHFs)*, the Permittee shall implement controls to reduce, to the *MEP*, the discharge of pollutants related to the storage and application of PHFs applied by employees or contractors, to public rights of way, parks, and other public property. The Permittee shall implement programs to encourage the reduction of the discharge of pollutants related to application and distribution of PHFs. For those controls implemented, the Permittee will obtain coverage and maintain compliance with ADEM NPDES Pesticide General Permit ALG870000, if applicable, or other applicable NPDES permits. In addition, the Permittee shall address priorities to include the following:

- 1) Identify all areas known to receive high applications of PHFs, develop a program to detect improper usage, and prioritize problem areas;
- 2) Require evidence of proper certification and licensing for all applicators contracted to apply pesticides or herbicides on municipal property; require that applicators contracted to apply fertilizer are qualified in utilizing proper nutrient management practices;
- 3) Maintain an inventory of on-hand PHFs with information about the formulations of various products, including how to recognize the chemical constituents from the label, their respective uses, directions and precautions for applicators that explain if products should be diluted, mixed or only used alone, and, proper storage of products;
- 4) Equipment use and maintenance;
- 5) Training in safe use, storage and disposal of PHFs;
- 6) Inspection and monitoring of facilities where PHFs are stored; and
- 7) Record keeping.

**9. Oils, Toxics, and Household Hazardous Waste Control**

- a. The Permittee shall prohibit to the MEP the discharge or disposal of used motor vehicle fluids and household hazardous wastes into the MS4. Specific activities to be completed under this item are:
  - 1) Make available material educating the public about used oil facility locations, hotline numbers, and alternatives to toxic materials;
  - 2) Advertise the location of used oil collection facilities; and
  - 3) Provide employee training on spill prevention at all municipal facilities where oils or toxic materials are used.
- b. The Permittee shall include within the SWMPP the following information:
  - 1) Procedures to develop, implement, and enforce a program for oils, toxics, and household hazardous waste control to include educational information and employee training.
- c. The Permittee shall report each year in the annual report the following information:
  - 1) Quantities of Household Hazardous Waste and used oil collected; and
  - 2) Oils, Toxics, and Household Hazardous Waste Control training workshops
    - a. Dated attendance sheet; and
    - b. Titles of presentations.

**10. Industrial Storm Water Runoff**

- a. The Permittee shall implement a program to inspect, monitor and control pollutants in storm water runoff to the MS4 from municipal waste landfills, hazardous waste treatment, storage, disposal and recovery facilities, and industrial facilities and high risk commercial facilities. Facilities to be addressed under this program include: facilities that have reported under the requirements of the Emergency Planning and Community Right to Know Act (EPCRA) Title III, Section 313; and any other industrial or commercial discharge that the Permittee determines is contributing substantial pollutants loading to the MS4 (“high risk facilities”). The program must provide for, at a minimum:
  - 1) Annual inspections of municipal waste landfills, hazardous waste treatment, storage, disposal (TSD) and recovery facilities;
  - 2) Annual inspections, at a minimum, of industrial facilities and high-risk commercial facilities that do not have an NPDES permit issued by the Department as outlined in the SWMPP, and
  - 3) Data collected by a NPDES permitted facility to satisfy the monitoring requirements of an NPDES, State, land application or local pretreatment discharge permit may be used to satisfy Part II.B.10.a of the Permit. The Permittee may require the facility to conduct self-monitoring to satisfy this requirement, if necessary.
- b. The Permittee shall include in the SWMPP a list of all municipal waste landfills, hazardous waste treatment, storage, disposal and recovery facilities, high risk commercial facilities, and industrial facilities, both NPDES permitted and non-NPDES permitted, within the MS4.
- c. The Permittee shall include in the annual report a summary of inspections performed for the year and enforcement, if applicable.

**C. *Legal Authority***

To the extent allowed under State law, the Permittee must review and revise its relevant ordinances or other regulatory mechanisms, or adopt any new ordinances that provide it with adequate legal authority to control pollutant discharges into and from its MS4, and to implement and enforce its SWMPP. To be considered adequate, this legal authority must, at a minimum, authorize the Permittee to:

1. Prohibit non-storm water discharges unless such storm water discharges are in compliance with a separate NPDES permit, or determined by the Department not to be a significant contributor of pollutants to waters of the State;
2. Prohibit and eliminate illicit connections to the MS4. Illicit connections include pipes, drains, open channels, or other conveyances that have the potential to allow an illicit discharge to enter the MS4;
3. Control the discharge of spills, and prohibit dumping or disposal of materials other than storm water into the MS4;
4. Require operators of construction sites and industrial and commercial facilities to minimize the discharge of pollutants to the MS4 to the maximum extent practicable through the installation, implementation, and maintenance of appropriate controls, including installation, implementation and long-term maintenance of post construction controls;
5. Request information to determine compliance with ordinances or other regulatory mechanism;
6. Inspect and monitor at reasonable times any facilities, equipment, practices, or operations for active or potential polluted storm water discharges to the MS4;
7. Promptly require that dischargers cease and desist discharging and/or clean-up and abate a discharge;
8. Levy citations or administrative fines against responsible parties to include but not limited to non-compliant construction sites;
9. Require recovery and remediation costs from responsible parties; and
10. Provide the authority to enter into interagency agreements with other entities for the purpose of controlling the contribution of pollutants to the maximum extent practicable from one MS4 to another MS4.

**D. *SWMPP Plan Review and Modification***

1. The Permittee shall submit to the Department within nine months of the effective date of this permit a SWMPP. The Permittee shall implement plans to seek and consider public input in the development, revision and implementation of this SWMPP, as required by Part II.B.2.b.1. Thereafter, the Permittee shall perform an annual review of the current SWMPP and must modify the SWMPP, as necessary, to maintain compliance with the permit. Any modifications to the SWMPP shall be submitted to the Department at the time a modification is made. Modifications made to the SWMPP may include, but are not limited to, the replacement of ineffective or infeasible BMPs or the addition of components, controls and requirements.
2. The Permittee shall implement the SWMPP on all new areas added to their municipal separate storm sewer system (or for which they become responsible for implementation of storm water quality controls) as soon as practicable. Implementation of the program in any new area shall consider the plans of the SWMPP of the previous MS4 ownership, if any.

**E. *Impaired Waters and Total Maximum Daily Loads (TMDLs)***

1. The Permittee must determine whether the discharge from any part of the MS4 contributes directly or indirectly to a waterbody that is included on the latest §303(d) list or designated by the Department as impaired;
2. If the Permittee's MS4 discharges to a waterbody included on the latest §303(d) or designated by the Department as impaired, it must demonstrate the discharges, as controlled by the Permittee, do not cause or contribute to the impairment. The SWMPP must detail the BMPs that are being utilized to control discharges of pollutants associated with the impairment. If existing BMPs are not sufficient to achieve this demonstration, the Permittee must, within six (6) months following the publication of the latest final §303(d) list, Department designation, or the effective date of this permit, submit a revised SWMPP detailing new or modified BMPs. The SWMPP must be revised as directed by the Department and the new or modified BMPs must be implemented within one year from the publication of the latest final §303(d) list or Department designation.
3. Permittees discharging from MS4s into waters with EPA-Approved TMDLs and/or EPA-Established TMDLs
  - a. The Permittee must determine whether its MS4 discharges to a waterbody for which a total maximum daily load (TMDL) has been established or approved by EPA. If an MS4 discharges into a water body with an EPA approved or established TMDL, then the SWMPP must include BMPs targeted to meet the assumptions and requirements of the TMDL. If additional BMPs will be necessary to meet the requirements of the TMDL, the SWMPP must include a schedule for installation and/or implementation of such BMPs. A monitoring component to assess the effectiveness of the BMPs in achieving the TMDL requirements must also be included in the SWMPP. Monitoring can entail a number of activities including, but not limited to: outfall monitoring, in-stream monitoring, and/or modeling. Monitoring data, along with an analysis of this data, shall be included in the Annual Report.
  - b. If, during this permit cycle, a TMDL is approved by EPA or a TMDL is established by EPA for any waterbody into which an MS4 discharges, the Permittee must review the applicable TMDL to see if it includes requirements for control of storm water discharges from the MS4.
    - a. If it is found that the Permittee must implement specific allocations of the TMDL, it must assess whether the assumptions and requirements of the TMDL are being met through implementation of existing BMPs or if additional BMPs are necessary. The SWMPP must include BMPs targeted to meet the assumptions and requirements of the TMDL. If existing BMPs are not sufficient, the Permittee must, within six (6) months following the approval or establishment of the TMDL by EPA, submit a revised SWMPP detailing new or modified BMPs to be utilized along with a schedule of installation and/or implementation of such BMPs. Any new or modified BMPs must be implemented within one year, unless an alternate date is approved by the Department, from the establishment or approval of the TMDL by EPA. A monitoring component to assess the effectiveness of the BMPs in achieving the TMDL requirements must also be included in the SWMPP. Monitoring can entail a number of activities including, but not

limited to: outfall monitoring, in-stream monitoring, and/or modeling. Monitoring data, along with an analysis of this data, shall be included in the Annual Report.

**F. Responsibilities of Permittee**

If the Permittee is relying on another entity to satisfy one or more requirements of this permit, then the Permittee must note that fact in the SWMPP. The Permittee remains responsible for compliance with the permit and reliance on another entity will not be a defense or justification for non-compliance if the entity fails to implement the permit requirements.

**PART III Monitoring and Reporting**

The Permittee shall implement a monitoring program to provide data necessary to assess the effectiveness and adequacy of BMPs implemented under the SWMPP. The quality of the streams receiving MS4 discharges shall continue to be monitored to assess the water quality of the streams and to identify potential water quality impairments. This shall be accomplished by the following:

**A. Monitoring Locations**

1. Proposed monitoring locations and descriptions of their respective characteristics shall be described in the SWPPP with actual locations described in the annual report;

Waterbody	Frequency
Valley Creek	Quarterly
Shades Creek	Quarterly

2. In addition to the requirements in Part III.A.1., if a waterbody (not listed in Part III.A.1) within the MS4 jurisdiction is listed on the latest final §303(d) list, or otherwise designated impaired by the Department, or for which a TMDL is approved or established by EPA, during this permit cycle, then the Permittee must revise its monitoring program to include monitoring that addresses the impairment or TMDL. Any revisions to the monitoring program shall be documented in the SWMPP and Annual Report. In addition, the permit may be modified by the Department to establish the additional or revised monitoring locations.

**B. Monitoring Parameters and Frequency**

1. Grab samples shall be collected on Valley Creek, and Shades Creek at each instream monitoring station and analyzed for the following parameters:
  - a. E.Coli;
  - b. Total Nitrogen (TN) (mg/l);
  - c. Total Phosphorus (mg/l);
  - d. Total Suspended Solids (TSS) (mg/l);
  - e. Temperature;
  - f. pH/ORP;
  - g. Turbidity (NTU);
  - h. Conductivity;
  - i. Dissolved Oxygen (mg/l);

- j. Ammonia Nitrogen (NH<sub>3</sub>-N) (mg/l);
  - k. Biochemical Oxygen Demand (BOD) (mg/l);
  - l. Chemical Oxygen Demand (COD) (mg/l);
  - m. Hardness as CaCO<sub>3</sub> (mg/l);
  - n. Nitrate plus Nitrite Nitrogen (NO<sub>3</sub>+NO<sub>2</sub>-N) (mg/l);
  - o. Oil and Grease (mg/l);
  - p. Total Dissolved Solids (TDS) (mg/l);
  - q. Total Kjeldahl Nitrogen (TKN) (mg/l); and
2. The Permittee must include in the instream monitoring program any additional parameters attributed with the latest final §303(d) list or otherwise designated by the Department as impaired or are included in an EPA-approved or EPA-established TMDL.

**C. *Sample Type, Collection and Analysis***

1. Grab samples taken within the first two hours of discharge shall be used for the analysis;
2. Grab samples shall be collected resulting from a storm event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event;
3. Analysis and collection of grab samples shall be done in accordance with the methods specified at 40 CFR Part 136. Where an approved 40 CFR Part 136 does not exist, then a Department approved alternative method may be used;
4. If the Permittee is unable to collect grab samples due to adverse conditions, the Permittee must submit a description of why samples could not be collected, including available documentation of the event. An adverse climatic condition which may prohibit the collection of samples includes weather conditions that create dangerous conditions for personnel (such as local flooding, high winds, hurricane, tornadoes, electrical storms, etc.) or otherwise make the collection of a sample impracticable (drought, extended frozen conditions, etc.).

**PART IV Annual Reporting Requirements**

1. The Permittee shall submit to the Department an annual report (1 hardcopy and 1 electronic copy) no later than January 31 of each year. The annual report shall cover the previous fiscal year beginning October 1 through September 30.
2. On or after December 21, 2020, all annual reports shall be submitted to the Department electronically in a prescribed manner acceptable to the Department.
3. The Permittee shall sign and certify the annual report in accordance with Part V.K.
4. The annual report shall include the following information, at a minimum, and in addition to those requirements referenced in Part II.B and Part III:
  - a. A list of contacts and responsible parties (e.g.: agency, name, phone number, address, & email address) who had input to and are responsible for the preparation of the annual report.
  - b. An overall evaluation of the storm water management program developments and progress for the following:
    - 1) Major findings such as water quality improvements or degradation;
    - 2) Major accomplishments;
    - 3) Overall program strengths/weaknesses;
    - 4) Future direction of the program;

- 5) The Permittee(s) will make an overall determination of the effectiveness of the SWMPP taking into account water quality/watershed improvements; and
  - 6) Required actions that were not performed, and reasons why the actions were not accomplished.
- c. The annual report will include a narrative report of all program elements referenced in Part II.B of this permit. The activities concerning a program element shall be discussed as follows:
- 1) Program element activities completed and in progress;
  - 2) General discussion of element. Explanation for all element activities that have not been fully implemented or completed. Results of activities shall be summarized and discussed (e.g.: maintenance caused by inspection, pollutants detected by monitoring, investigations as a result of dry and wet weather screening, number and nature of enforcement item, education activities/participation);
  - 3) Status of program element with compliance, implementation, and augmentation schedules in Part II of the permit;
  - 4) Assessment of controls; and
  - 5) Discussion of proposed element revisions.
- d. The annual report shall contain a monitoring section which discusses the progress and results of the monitoring programs required under Part III of the permit and shall include, at a minimum, the following information.
- 1) Status of implementation of the monitoring program;
  - 2) Map(s) showing the monitoring station locations, latitude/longitude, and narrative site descriptions, including watershed size;
  - 3) Raw data, results, methods of evaluating the data, graphical summaries of the data, and an explanation/discussion of the data for each component of the monitoring program;
  - 4) An analysis of the results of each monitoring program component;
  - 5) A comparison of the reporting year's data to the previous five years of data to establish a trend analysis to determine the relative health of the receiving water;
  - 6) All monitoring reports and supporting data shall be submitted in hardcopy and/or electronically in a format deemed acceptable to the Department concurrently with the submission of the Annual Report; Failure to provide this data in a format appropriate to the Department for review shall be a violation of this permit; and
  - 7) The interpretation of the analytical data, required by Part III.B.1-2 of the Permit, for determinacy of meeting water quality standards.
- e. Provide the status of the implementation and proposed changes to the SWMPP to include assessment of controls and specific improvements or degradation to water quality;
- f. Provide a summary of inspections and enforcement actions for regulatory program. Enforcement actions should include a corrective actions summary;
- g. Implementation status of the public education programs; and
- h. Status of expenditures and budget for the past fiscal year and the next fiscal year for the Permittee's program. The analysis shall indicate budgets and funding sources.

## **PART V Standard and General Permit Conditions**

### ***A. Certification and Signature of Reports***

All reports required by the permit and other information requested by the Director shall be signed and certified in accordance with Part V.K. of this permit.

### ***B. Submittals***

All documents required to be submitted to the Department by this permit, shall be addressed to:

Alabama Department of Environmental Management  
Stormwater Management Branch, Water Division  
Post Office Box 301463  
Montgomery, Alabama 36130-1463

Certified and Registered Mail shall be addressed to:

Alabama Department of Environmental Management  
Stormwater Management Branch, Water Division  
1400 Coliseum Blvd  
Montgomery, Alabama 36110-2059

### ***C. Retention of Records***

The Permittee shall retain the storm water quality management program developed in accordance with Part II of this permit until at least five years after coverage under this permit terminates. The Permittee shall retain all records of all monitoring information, copies of all reports required by this permit, and records required by this permit, and records of all other data required by or used to demonstrate compliance with this permit, until at least three years after coverage under this permit terminates. This period may be explicitly modified by alternative provisions of this permit or extended by request of the Director at any time.

### ***D. Duty to Comply***

The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

### ***E. Civil and Criminal Liability***

#### **1. Tampering**

Any person, who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained or performed under this permit shall, upon conviction, be subject to penalties as provided by AWPCA.

#### **2. False Statements**

Any person knowingly makes any false statement, representation, or certification in any record or other documentation submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance, shall, upon conviction, be punished as provided by AWPCA.

#### **3. Relief from Liability**



Nothing in this permit shall be construed to relieve the Permittee(s) of civil and criminal liability under AWPCA or FWPCA for non-compliance with any term or condition of this permit.

***F. Duty to Reapply***

1. If the Permittee intends to continue an activity regulated by this permit beyond the expiration of this permit, the Permittee must apply for and obtain a new permit. The application shall be submitted at least 180 days prior to expiration of this permit.
2. Failure of the Permittee to apply for re-issuance at least 180 days prior to permit expiration will void the automatic continuation of the expiring permit provided by ADEM Administrative Code, Rule 335-6-6-.06, and should the permit not be re-issued for any reason any discharge after expiration of this permit will be an unpermitted discharge.

***G. Need to Halt or Reduce an Activity Not a Defense***

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

***H. Duty to Mitigate***

The Permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human or the environment.

***I. Duty to Provide Information***

The Permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, suspending, or revoking this permit in whole or in part, or to determine compliance with this permit. The Permittee shall also furnish to the Director upon request copies of records required to be kept by this permit.

***J. Other Information***

If the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information with a written explanation for the mistake and/or omission.

***K. Signatory Requirements***

All reports and forms to be submitted by this permit, AWPCA and the Department's rules and regulations, shall be signed by a "responsible official" of the Permittee, as defined in ADEM Administrative Code, Rule 335-6-6-.09, or a "duly authorized representative" of such official, as defined by ADEM Administrative Code, Rule 335-6-6-.09, and shall bear the following certification:

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

**L. *Oil and Hazardous Substance Liability***

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties to which the Permittee is or may be subject under Section 311 of FWPCA.

**M. *Property and Other Rights***

This permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, or any infringement of Federal, State, or local laws or regulations, nor does it authorize or approve the construction of any physical structures or facilities or the undertaking of any work in any waters of the State of Alabama.

**N. *Severability***

The provision of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of the permit shall not be affected thereby.

**O. *Compliance with Statutes and Rules***

This permit is issued under ADEM Administrative Code, Chapter 335-6-6. All provisions of this chapter that are applicable to this permit are hereby made a part of this permit. This permit does not authorize the non-compliance with or violation of any laws of the State of Alabama or the United States of America or any regulations or rules implementing such laws.

**P. *Proper Operations and Maintenance***

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this permit and with the requirements of storm water pollution prevention plans. Proper operation and maintenance requires the operation of backup or auxiliary facilities or similar systems, installed by a Permittee only when necessary to achieve compliance with conditions of the permit.

**Q. *Monitoring Records***

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
2. The Permittee shall retain records of all monitoring information including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of reports required by this permit, and records of all data used to complete the application of this permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended at the request of the Director at any time.

**R. *Monitoring Methods***

Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.

**S. *Right of Entry and Inspection***

The Permittee shall allow the Director or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:

1. Enter upon any of the permittee's premises where a regulated facility or activity or point source is located or in which any records must be maintained under conditions of this permit;

2. Have access to and copy, at reasonable times, any records required to be maintained by the terms and conditions of this permit;
3. Inspect, at reasonable times, any point source, any monitoring equipment or practices being maintained to comply with this permit, or any treatment or control or systems being maintained to comply with this permit; and
4. Sample or monitor, at reasonable times, for the purposes of determining permit compliance or as otherwise authorized by AWPCA, any substances or parameters at any location.

***T. Additional Monitoring by the Permittee***

If the Permittee monitors more frequently than required by this permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the monitoring report. Such increased monitoring frequency shall also be indicated on the monitoring report.

***U. Permit Modification and Revocation***

1. This permit may be modified or revoked or reissued, in whole or in part, during its term for cause including but not limited to, the following:
  - a. If cause for termination under Part V.A.3., of this permit exists, the Director may choose to revoke or re-issue this permit instead of terminating the permit;
  - b. If a request to transfer this permit has been received, the Director may decide to revoke and re-issue or to modify the permit; or
  - c. If modification or revocation and re-issuance is requested by the Permittee and cause exists, the Director may grant the request.
2. This permit may be modified during its term for cause, including but not limited to:
  - a. If cause for termination under Part V.A.3., of this permit exists, the Director may choose to modify this permit instead of terminating this permit;
  - b. The Director has received new information that was not available at the time of permit issuance and that would have justified the application of different permit conditions at the time of issuance;
  - c. Errors in calculation of discharge limitation or typographical or clerical errors were made;
  - d. To the extent allowed by ADEM Administrative Code, Rule 335-6-6-.17, when the standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or judicial decision after the permit was issued;
  - e. To the extent allowed by ADEM Administrative Code, Rule 335-6-6-.17, permit may be modified to change compliance schedules;
  - f. To incorporate an applicable Section 307(a) of FWPCA toxic effluent standard or prohibition;
  - g. When required by the re-opener conditions in this permit;

- h. Upon failure of the State to notify, as required by Section 402(b)(3) of FWPCA, another State whose water may be affected by a discharge permitted by this permit;
  - i. When required to correct technical mistakes, such as errors in calculation, or mistaken interpretations of law made in determining permit conditions;
  - j. When requested by the Permittee and the Director determines that the modification has cause and will not result in a violation of federal or State law, rules, or regulations;
  - k. To add a new Permittee who is the owner or operator of a portion of the Municipal Separate Storm Sewer System; or
  - l. To change portions of the Storm Water Quality Management Program that is considered permit conditions.
3. This permit may be terminated during its term for cause, including but not limited to, the following:
- a. Violation of any term or condition of this permit;
  - b. The permittee's misrepresentation or failure to disclose fully all relevant facts in the permit application or during the permit issuance or the permittee's misrepresentation of any relevant facts at any time;
  - c. Materially false or inaccurate statements or information in the permit application or the permit;
  - d. The permittee's discharge threatens human life or welfare or the maintenance or water quality standards; or
  - e. Any other cause allowed by ADEM Administrative Code, Rule 335-6-6.
4. This permit may be suspended during its term for cause, including but not limited to, the reasons for termination listed above.
5. The filing of a request by the Permittee for modification, suspension or revocation of this permit, in whole or in part, does not stay any permit term condition.

***V. Termination of Coverage for a Single Permittee***

Permit Coverage may be terminated, in accordance with the provision of 30 CFR 122.64 and 124.5, for a single Permittee without terminating coverage for other permittees.

***W. Modification of Storm Water Management Program***

Only those portions of the Storm Water Management Program specifically required as permit conditions shall be subject to modification requirements of 40 CFR 124.5. Replacement of an ineffective or infeasible BMP implementing a required component of the Storm Water Management Program with an alternate BMP expected to achieve the goals of the ineffective or infeasible BMP shall be considered a minor modification to the SWMPP and not modification to the Permit.

***X. Changes in Monitoring Outfalls***

This permit is issued on a system-wide basis in accordance with CWA §402(p)(3)(i) and authorizes discharges from all portions of the MS4. Since all outfalls are authorized, changes

in monitoring outfalls, other than those with specific numeric effluent limitations, shall be considered minor modifications to the permit and will be made in accordance with the procedures at 40 CFR 122.63.

**Y. Definitions**

1. "Alabama Handbook" means the September 2014 edition of the Alabama Handbook for Erosion Control, Sediment Control, And Stormwater Management on Construction Sites and Urban Areas, Alabama Soil and Water Conservation Committee (ASWCC) published at the time permit is effective.
2. "Arithmetic Mean" means the summation of the individual values of any set values divided by the number of individual values.
3. "AWPCA" means Code of Alabama 1975, Title 22, the Alabama Water Pollution Control Act, as amended.
4. "Best Management Practices" (BMPs) means activities, prohibitions of practices, maintenance procedures, and other management practices implemented to prevent or reduce the discharge of pollutants to waters of the State. BMPs also include treatment systems, operating procedures, and practices to control facility runoff, spillage or leaks, sludge or water disposal, or drainage from raw material storage.
5. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
6. "Control Measure" as used in this permit, refers to any Best Management Practice or other method used to prevent or reduce the discharge of pollutants to waters of the State.
7. "CWA" or "The Act" means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub.L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483 and Pub. L. 97-117, 33 U.S.C. 1251 et.seq.
8. "Department" means the Alabama Department of Environmental Management or an authorized representative.
9. "Discharge", when used without a qualifier, refers to "discharge of a pollutant" as defined as ADEM Administrative Code 335-6-6-.02(m).
10. "Flood Management Project" means a project that will alter, modify or change the base flood elevation of a 1% annual chance flood event.
11. "Flow-weighted composite sample" means a composite sample consisting of a mixture of aliquots collected at a constant time interval, where the volume of each aliquot is proportional to the flow rate of the discharge at the time of sampling.
12. "Green Infrastructure" refers to systems and practices that use or mimic natural processes to infiltrate, evapotranspire (the return of water to the atmosphere either through evaporation or by plants), or reuse stormwater or runoff on the site where it is generated.
13. "Hydrology" refers to the physical characteristics of storm water discharge, including the magnitude, duration, frequency, and timing of discharge.

14. "Illicit connection" means any man-made conveyance connecting a non-storm water discharge directly to a municipal separate storm sewer system.
15. "Illicit discharge" means any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a NPDES permit.
16. "Industrial Land Use" means land utilized in connection with manufacturing, processing, or raw materials storage at facilities identified under Alabama State Law.
17. "Infiltration" means 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.
18. "Landfill" means an area of land or an excavation in which wastes are placed for permanent disposal, and which is not a land application unit, surface impoundment, injection well, or waste pile.
19. "Large" municipal separate storm sewer system means all municipal separate storm sewers that are either: (i) located in an incorporated place (city) with a population of 250,000 or more as determined by the latest decennial census.
20. "Low Impact Development" (LID) is an approach to land development (or re-development) that works with nature to manage stormwater as close to its source as possible. LID employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional and appealing site drainage that treat stormwater as a resource rather than a waste product.
21. "Major outfall" is the point(s) where the MS4 discharges to a water of the State from (1) a pipe (or closed conveyance) system with a cross-sectional area equal to or greater than 7.07 square feet (e.g., if a single circular pipe system, an inside diameter of 36 inches or greater),(2) a single conveyance other than a pipe, such as an open channel ditch, which is associated with a drainage area of more than 50 acres,(3) a pipe (or closed conveyance) system draining "industrial land use" with a cross-sectional area equal to or greater than 0.79 square feet (e.g., if a single circular pipe system, an inside diameter of 12 inches or greater),(4) or a single conveyance other than a pipe, such as an open channel ditch, which is associated with an "industrial land use" drainage area of more than 2 acres;For the purpose of this permit, outfalls of the "double barrel" type, whose combined cross-sectional area is greater than 7.07 square feet, equivalent to a single circular pipe outfall with an inside diameter of 36 inches or greater, are also considered major outfalls.
22. "MEP" is an acronym for "Maximum Extent Practicable," the technology-based discharge standards and controls necessary for municipal separate storm sewer systems to reduce pollutants in storm water discharges that was established by CWA Section 402(p). These standards and controls may consist of a combination of best management practices, control techniques, system design and engineering methods, and such other provisions for the reduction of pollutants discharged from a MS4 as described in the storm water management system.
23. "Medium" municipal separate storm sewer system means all municipal separate storm sewers that are either: (i) located in an incorporated place (city) with a population of 100,000 or more but less than 250,000 as determined by the latest decennial census.
24. "MS4" is an acronym for "Municipal Separate Storm Sewer System" and is used to refer to either a large, medium, or small municipal separate storm sewer system. The term is used to refer to either the system operated by a single entity or a group of systems within an area that are operated by multiple entities.

25. "Municipal Separate Storm System" is defined at 40 CFR Part 122.26(b)(8) and means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States; (ii) Designed or used for collecting or conveying storm water; (iii) Which is not a combined sewer; and (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined in ADEM Administrative Code 335-6-6-.02(nn).
26. "Permittee" means each individual co-applicant for an NPDES permit who is only responsible for permit conditions relating to the discharge that they own or operate.
27. "Point Source" means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.
28. "Priority Construction Site" means any qualifying construction site in an area where the MS4 discharges to a waterbody which is listed on the most recently approved 303(d) list of impaired waters for turbidity, siltation, or sedimentation, any waterbody for which a TMDL has been finalized or approved by EPA for turbidity, siltation or sedimentation, any waterbody assigned the Outstanding Alabama Water use classification in accordance with ADEM Admin. Code r. 335-6-10-.09, and any waterbody assigned a special designation in accordance with 335-6-10-.10.
29. "Qualifying Construction Site" means any construction activity that results in a total land disturbance of one or more acres and activities that disturb less than one acre but are part of a larger common plan of development or sale that would disturb one or more acres. Qualifying construction sites do not include land disturbance conducted by entities under the jurisdiction and supervision of the Alabama Public Service Commission.
30. "Qualifying New Development and Redevelopment" means any site that results from the disturbance of one acre or more of land or the disturbance of less than one acre of land if part of a larger common plan of development or sale that is greater than one acre. Qualifying new development and redevelopment does not include land disturbances conducted by entities under the jurisdiction and supervision of the Alabama Public Service Commission.
31. "Storm water" is defined at 40 CFR Part 122.26(b)(13) and means storm water runoff, snow melt runoff, and surface runoff and drainage.
32. "Structural Controls" means an engineered BMP constructed with rigid walls and/or weirs and piped drainage that utilize active or passive treatment and/or mechanical systems for the purpose of treating storm water runoff.
33. "Structural Flood Control" means structural measures that control the 1% annual chance floodwaters by construction of barriers, storage areas or by modifying / redirecting channels.

# Bessemer's MS4 ALS000022 Comments and Response to Comments

1. **Comment:** Before we comment on specific aspects of this DRAFT MS4 Permit, we want to focus on a misunderstanding that has occurred. The City of Bessemer's 2016 Annual Report for their MS4 program, under Section 2.2 Major Findings, asserts the following:

*According to the 2014 303(d) list of ADEM, streams within, or flowing through, the City of Bessemer which have been designated as impaired by not fully meeting their usage classification have none of our streams listed. All creeks meet the maximum and minimum values of preferred water quality...*

The 303(d) list is NOT a list of all the impaired waters in their community. Given the assertion that all of their creeks meet water quality standards, we question whether the City understands that it has responsibilities to address the goals of the TMDLs for those impaired streams. This is an important misunderstanding on their part. While the City is aware of ADEM's Total Maximum Daily Loads (TMDLs) for Shades Creek, they apparently do not recognize that streams with TMDLs are still impaired and are in need of particular attention.

This fundamental misunderstanding must be addressed. If the municipality does not recognize that streams with TMDLs are impaired, we cannot expect that any steps will be taken to improve stormwater management. ***How will ADEM address this misunderstanding and assure that steps toward meeting the goals of the Shades Creek TMDL will be made?***

**Response:** Based on conversations with the City, the Department believes that the City understands its responsibilities regarding impaired and TMDL waterbodies. The City is currently monitoring Shades Creek, on a quarterly basis at two locations, to address the Shades Creek TMDL. As stated in the draft permit, this monitoring is proposed to be continued. As required by the Draft Permit, the City shall not cause or contribute to violations of Alabama Water Quality Standards and shall be in compliance with applicable TMDLs. The 2015-2016 Annual Report included a table with the approved TMDL segments of Shades Creek within the City of Bessemer along with a statement that Fecal Coliform appeared to have improved from where the Creek enters the City's MS4 boundary to where the Creek exits the City's MS4 boundary.

2. **Comment:** The SWMPP is required to provide a mechanism to "Seek and consider public input in the development, revision and implementation of the SWMP." We encourage the MS4 to establish a Citizen Advisory Committee or other means for public input as early in the permit term as possible. **While we understand ADEM cannot require such an advisory committee, would ADEM encourage Bessemer to establish such a committee?**



**Response:** The Department encourages Permittees to implement best management practices that would work best for the Permittee for compliance with the Permit. The Draft Permit allows the flexibility for each Permittee to determine what practice(s) to utilize in notifying its stakeholders regarding input and participation in the development of the stormwater program. Also, since the Draft Permit does require the Permittee to seek and consider public input in the development, revision and implementation of this SWMPP, the Permittee will be seeking and accepting public input should you wish to relay your concerns regarding the implementation of an advisory committee to the Permittee. Please note that while an advisory committee maybe an appropriate BMP for one entity, it may not be a suitable BMP for another.

3. **Comment:** We are pleased to learn that the former ALS000001 permittees have adopted JDCH Guidelines and Standard Operating procedures, including an IDDE program. **Has the City of Bessemer adopted those procedures?**

**Response:** The City of Bessemer has an IDDE program and has various standard operating procedures (SOPs) currently in place, as noted in the City's 2015-2016 Annual Report. As required by Part II.B.7.a.5 of the Draft Permit, the City will be required to have SOPs detailing good housekeeping practices to be employed at appropriate municipal facilities and during municipal operations. Part II.D.1. of the Draft Permit provides the public an opportunity to engage in the development and implementation of the Permittee's SWMPP, so any concerns that you may have regarding the Permittee's SOPs or IDDE program may also be addressed with the Permittee.

4. **Comment:** ADEM has indicated they do not believe that have the authority to regulate stormwater volume. However, the Clean Water Act is a minimum standard that must be addressed by the State program. States must have the authority and regulatory underpinning to enforce the minimum federal standards. If Alabama's statutes remain a hurdle for adoption of maximum extent practicable (MEP) standards in MS4 permits, then those statutes fall short of what the federal law require. ADEM should be seeking ways to address this shortcoming. **In what ways is ADEM seeking better manage stormwater volume? Does ADEM recognize that hydrologic alteration due to increased stormwater runoff from urban areas is a documented and major source of stream impairment?**

**Response:** This Draft Permit requires the Permittee to develop, revise, implement, maintain, and enforce a storm water management program (SWMP) 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 Part 122.26**. This SWMP is required to involve using management practices, 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 MEP. The Department believes that the language in the Draft Permit regarding post construction controls is appropriate to meet the statutory and regulatory requirements of reducing the discharge of pollutants and no changes were made based on the comment.

5. **Comment:** ADEM's argument that it may only regulate the 'direct' discharge of pollutants ignores the reality that increased stormwater volume causes discharge of pollutants. Although indirect, this is occurring and results from the increased stormwater volume from these MS4 permittees.

The Cahaba Siltation and Habitat Alteration TMDL identifies urbanization specifically and hydrologic alteration indirectly as a major cause or source of excessive sedimentation for the Cahaba River. If ADEM does not have the authority to regulate the *major source of pollutant loading* to the Cahaba River or any other stream, then ADEM should be seeking ways to address this shortcoming, including regulatory and non-regulatory means.

As the Alabama Stormwater Partnership pointed out in previous comments on Trussville's DRAFT MS4 permit, "The Clean Water Act states and EPA reiterates that 'The statute requires the inclusion of *any* control measures determined to be necessary to reduce the pollutants to the maximum extent practicable. This compels the inclusion of controls to reduce the discharge of pollutants to the maximum extent practicable (*emphasis added*).' Using the 2.2" rain event as the basis for BMP design for the Birmingham area is an essential 'maximum extent practicable' standard justifiable on the basis that it would reduce downstream sediment loading to river segments with a siltation TMDL. The Cahaba and Shades Creek TMDL targets cannot be met without improved control of stormwater volume.

The Cahaba Siltation and Habitat Alteration TMDL includes numerous paragraphs that reflect the relative significance of habitat alteration due to the increased rate and volume of stormwater runoff from MS4s. Results from the Shades Creek Siltation, Turbidity, and Habitat Alteration TMDL quantify the relative significance of 'upland' versus 'in-stream' erosion. The TMDL notes that nearly two thirds of the total sediment loading is due to streambed and bank erosion. There is little dispute about this assertion. The goals of the Cahaba Sediment TMDL and the Shades Creek Sediment TMDL are to reduce sediment loading by 48% and 53%, respectively.

However, the response to this significant source of sediment loading by regulatory authorities and MS4s has been inadequate. Regulatory agencies must acknowledge and address the major source of sediment loading, which is the hydrologic alteration due largely to increased stormwater runoff volume. Even if all MS4 permittees were in 100% compliance with current and proposed permit requirements, the goals of the TMDL to reduce sediment loading by about half will not be reached because about two thirds of the problem remains largely unaddressed. ***How does this MS4 permit address 'urban stream syndrome'? How will ADEM facilitate MS4s in coming to grips with stream habitat alteration, the major source of pollutant loading to the Cahaba River and Shades Creek?***

**Response:** The intent of the draft Permit is to require the Permittee, to the MEP, to implement, maintain and enforce a comprehensive stormwater management program which involves using management practices, control techniques and system, design and engineering methods, and such other provisions which are appropriate to **reduce the discharge of pollutants** from the MS4 consistent with Section 402(p)(3)(B) of the Clean Water Act and 40 CFR Part 122.26. Please note flow is not a pollutant under the Clean Water Act. The post

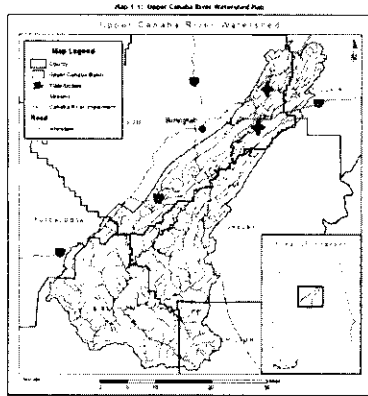
construction requirements set forth in the draft Permit are aimed at reducing the discharge of pollutants in post-construction storm water runoff to the MS4 from qualifying new development and re-development and once implemented will have an additional benefit of reducing runoff from qualifying projects. Also, as required by the draft Permit, the Permittee shall not cause or contribute to violations of Alabama Water Quality Standards, and shall be in compliance with applicable TMDLs. Part II.E. of the draft Permit contains requirements regarding discharges into a water body with an EPA approved or established TMDL, including BMPs targeted to meet the assumptions and requirements of the TMDL, schedules for installation and/or implementation of such BMPs, and monitoring to assess the effectiveness of the BMPs in achieving the TMDL requirements. The Department finds the language within the draft Permit to be consistent with State and Federal statutes and regulations, and no changes were made based on the comment.

The draft Permit does require the Permittee to seek and consider public input in the development, revision and implementation of the SWMPP. The commenter is encouraged to engage the Permittee regarding projects outside the regulatory requirements that could aid in reduced runoff volumes to combat the issues noted in your comments.

6. **Comment:** The City of Bessemer describes their current Spill Prevention and Response Program in their 2016 MS4 Annual Report. They describe a thoughtful approach to facilitating coordination between the Bessemer Fire Department and the Jefferson County Emergency Management team and other steps they have taken to avoid contamination of waterways following a spill. Also, they describe training efforts for handling pesticides, fertilizer, and herbicide management. However, the program they describe has little to say about spill prevention, *per se*. ***Will ADEM encourage Bessemer to include prevention aspects in Bessemer's Spill Prevention and Response Program?***

**Response:** The draft Permit **requires** the Permittee, in Part II.B.6.a, to further develop/revise and implement a program to **prevent**, contain and respond to spills that may discharge into the MS4. Part II.B.6.a.4 requires the Permittee to implement a **spill prevention**/spill response plan, as well. Please note that Part II.B.6.a.1 of the Draft Permit does allow a Permittee to coordinate with other agencies that may provide response actions as outlined in the SWMPP. In addition, Part II.B.9 of the draft Permit requires the prohibition, to the MEP, of discharge or disposal of used motor vehicle fluids and household hazardous wastes into the MS4. Also, Part II.B.2, regarding educational aspects, could be aimed in preventing spills through proper techniques.

**7. Comment:** In our previous comments on ALS000016 through ALS000020, we included this map, adapted from one originally created for ADEM's Cahaba Siltation and Habitat Alteration TMDL. We pointed out that the two locations where Sonde technology are being used are in



◆ Possible locations for MS4s monitoring on the Cahaba River mainstem.

the upper portion of the Cahaba River watershed. While MS4s in more southerly portions of the watershed are required to collect grab samples, our previous comments on the sampling frequency proposed for grab samples demonstrated that the infrequency of grab sampling used to evaluate whether progress toward the goals of the Cahaba Siltation TMDL compromises the program's value. Grab sampling is neither adequately frequent (See paragraph on 'Power analysis' in our comments on ALS000016 through ALS000020) nor does it, for these MS4s, include *Total Suspended Solids* among the variables to be measured. While turbidity and Total Dissolved Solids sampling is required, ***Total Suspended Solids*** information is essential to allow comparison to data collected and analyzed for the Cahaba Siltation TMDL. We urge ADEM to require the Cahaba MS4s to measure Total Suspended Solids at an adequate frequency so that there will be adequate information to reach a statistically reliable conclusion about whether or not these MS4s are progressing toward the goals of the Cahaba Siltation and Habitat Alteration TMDL. This is a minimum, essential standard that an adequate monitoring program must meet.

So far, this is what has been established about MS4 monitoring in the Cahaba River basin:

MS4	Hourly Sonde Monitoring <sup>†</sup>	Grab Sample Location (frequency)
Trussville	Cahaba River	Cahaba (semi-annual*) Pinchgut Cr (semi-annual) Dry Cr (semi-annual)
Irondale		Cahaba (annual) Shades Cr (annual)
Vestavia	Cahaba River	Cahaba (annual) Patton Cr (annual)
Homewood	Shades Creek	Shades Cr (annual) Tributaries of Shades (annual)
Mountain Brook		Shades Cr (annual) Tributaries of Shades (annual)
Hoover	Patton Creek (two locations) Lee Branch	
Alabaster		Buck Creek, multiple locations (quarterly**)
Pelham		Buck Creek (quarterly) Cahaba Valley Cr (quarterly) Pea Vine Cr (biannually***)
Helena		Cahaba (semi-annual) Buck Creek (semi-annual)
Shelby County	Cahaba Valley Creek	Cahaba Valley Cr (semi-annual) Lee Branch (semi-annual)
Bessemer		Shades Creek (quarterly) Valley Creek (quarterly)

<sup>†</sup> Hoover's Sonde measurements are collected at 15 minute intervals.

\* Semi-annual means two times per year.

\*\* Quarterly means four times per year.

\*\*\* Biannual means once per two years.

Our concern with the current status of the monitoring approach is that:

- 1) This approach is too diffusely spread across the watershed
- 2) The required monitoring frequency is so limited, and
- 3) Total Suspended Solids measurement, the subject of the Cahaba Siltation and Habitat Alteration TMDL, is not a required measurement.

ADEM should not rely on the MS4s to establish the broad outlines of monitoring programs. ADEM should specify the water quality variables essential to understanding whether or not progress is being made toward the goals of the applicable TMDLs. A more integrative approach is needed. Progress toward the goals of the Cahaba Siltation TMDL will be measured in terms of Total Suspended Solids and flow measurements *at the sites evaluated in the TMDL document*. Any other monitoring sites will yield results that compare 'apples to oranges'. It is impossible for the monitoring results proposed here to shed enough light on progress toward meeting the Cahaba Siltation TMDL goals. ***How will ADEM assure that the monitoring***

***requirements address the need to assess compliance with the goals of the Cahaba Siltation TMDL?***

**Response:** Regarding your comment stating that total suspended solids (TSS) measurement is not required, the draft Permit, Part III.B.1.d. does require TSS (mg/l) monitoring on Valley Creek and Shades Creek. In addition to MS4 monitoring, the Department has been conducting monitoring on both the main stem of the Cahaba River as well as tributaries for the pollutants of concern. Other agencies, such as United States Geological Survey (USGS), also perform sampling with real-time stations on both the main stem of the Cahaba River and its tributaries. It is the Department's understanding that the Permittee is in communication with surrounding MS4s and agencies to work together to address stormwater issues, to include monitoring.

The Permittee is also required by Part IV.d the Draft Permit to include within the Annual Report an explanation/discussion of the monitoring data, an analysis of the data results, and a trend analysis to determine the health of the receiving water. The Department reviews the Annual Reports and provides comments as necessary. No changes were made to the draft Permit based on this comment.

8. **Comment:** We understand that none of these MS4s are responsible for other MS4s. At the same time, none of these MS4s seem willing to undertake monitoring of sufficient intensity that would be statistically defensible. Collectively, they could achieve that level of monitoring intensity at an integrative location (like one of the USGS sites used to develop the Cahaba Siltation TMDL goals).

***How will ADEM assure that the collective effort of all these MS4s will yield a sound monitoring plan that will be capable of reasonably assessing whether or not progress is being made toward the goals of the Cahaba Siltation TMDL?*** Unless some municipality is collecting data on flow and Total Suspended Solids in a manner very similar to that which was used to develop the Cahaba Siltation TMDL, we will not be able to make a valid assessment of progress toward the goals of that TMDL.

As these draft permits are currently written, ADEM will be unable to determine whether these MS4s are holding steady or making progress toward achieving the Cahaba's Siltation TMDL goals or even if they are losing ground. More frequent/intensive and more accurate assessments are needed to provide the necessary data to allow sound environmental management decisions to be made in a timely manner.

**Response:** Part II.E. of the Draft Permit contains requirements regarding discharges into a water body with an EPA approved or established TMDL, including BMPs targeted to meet the assumptions and requirements of the TMDL, schedules for installation and/or implementation of such BMPs, and monitoring to assess the effectiveness of the BMPs in achieving the TMDL requirements. It is the Department's understanding that the Permittee has communicated with surrounding MS4s and other agencies to work together to address stormwater issues, to include monitoring. The Permittee must include a monitoring component within the SWMPP that assesses the effectiveness of the BMPs in achieving the

TMDL requirements. The Department reviews and comments, when necessary, on the SWMPPs, to include monitoring plans. Part II.D. of the Draft Permit requires the Permittee to seek and consider public input in the development, revision and implementation of this SWMPP, to include monitoring plans, so any concerns that you may have regarding monitoring may be relayed to the Permittee.