LANCE R. LEFLEUR
DIRECTOR

KAY IVEY
GOVERNOR

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

February 26, 2018

Certified Mail # 91 7108 2133 3936 7157 6374

Honorable Randall Woodfin
Mayor, City of Birmingham
710 North 20th Street
Birmingham, Alabama 35203

RE: Municipal Separate Storm Sewer System (MS4) Individual Phase I Permit
NPDES Number ALS000032
City of Birmingham MS4
Jefferson County (073)

Dear Mayor Woodfin:

The Department has made a final determination to issue NPDES Permit No. ALS000032 to the City of Birmingham for discharges from its MS4. The NPDES Permit Number ALS000032 will be effective March 1, 2018 and expire on February 28, 2023.

The Department notified the public of its tentative determination to issue NPDES Permit No. ALS000032 on July 19, 2017. Interested persons were provided the opportunity to submit comments on the Department's tentative decision through August 18, 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 Birmingham 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 or by phone at 334-270-5616.

Sincerely,

Jeffery W. Kitchens, Chief
Stormwater Management Branch
Water Division

JWK/mss

File: FPER
Enclosure: Permit/Response to Comments

cc: Ms. Kacy Sable /Environmental Protection Agency (via email)
Mr. Thomas Miller, City of Birmingham (via email)

Birmingham Branch
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (FAX)

Decatur Branch
2715 Sandlin Road, S.W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (FAX)

Mobile Branch
2204 Perimeter Road
Mobile, AL 36615-1131
(251) 450-3400
(251) 479-2593 (FAX)

Mobile-Coastal
3664 Dauphin Street, Suite B
Mobile, AL 36608
(251) 304-1176
(251) 304-1189 (FAX)

ADEM
Alabama Department of Environmental Management

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

PERMITTEE:	CITY OF BIRMINGHAM
AREA OF COVERAGE:	CORPORATE BOUNDARIES OF THE CITY OF BIRMINGHAM
PERMIT NUMBER:	ALS000032
RECEIVING WATERS:	WATERBODIES WITHIN THE CORPORATE BOUNDARIES OF CITY OF BIRMINGHAM

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:	FEBRUARY 26, 2018
EFFECTIVE DATE:	MARCH 1, 2018
EXPIRATION DATE:	FEBRUARY 28, 2023

Glenda L. Dean

Alabama Department of Environmental Management

Table of Contents

Table of Contents (continued)

PART I Applicability

A. Permit Area

This permit applies to the corporate boundaries of the City of Birmingham 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

1. **Structural Controls**

    a. For Permittee owned/maintained structural controls, the structural controls shall be operated in a manner to reduce the discharge of pollutants, to the MEP;

    b. 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.

c. The Permittee shall maintain an inventory of structural controls, and maintain a tracking system for inspections and maintenance of the control structures; and

d. 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. Specifically address the reduction of litter, floatables and debris from entering the MS4, that may include, but is not limited to:
    a. Continue to explore the labeling of storm drain inlets and catch basins with "no dumping" message through MS4 inlet design improvements; 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 advertisements 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. The Permittee will dry weather screen 100% of the City's screening points per year. This dry weather screening program will address, at a minimum, any flow, from an unidentified source, observed during the dry weather screening of an outfall. The City will sample, trace, and track the source of all identified dry weather flows, particularly within elevated stream peaking segments, each year of the permit cycle 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, and the City's SWMPP.

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/areas observed during the dry weather screening;
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 MEP, 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.X.)	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

*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.

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 SWMPP with actual locations described in the annual report;

Waterbody	Frequency*
Cahaba River	Bimonthly
Village Creek	Bimonthly
Valley Creek	Bimonthly
Shades Creek	Bimonthly
Five Mile Creek	Bimonthly

* Bimonthly as used herein is every two months

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 Cahaba River, Village Creek, Valley Creek, Shades Creek and Fivemile 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_3-N) (mg/l);
k. Biochemical Oxygen Demand (BOD) (mg/l);
l. Hardness as $CaCO_3$ (mg/l);
m. Nitrate plus Nitrite Nitrogen (NO_3+NO_2-N) (mg/l);
n. Total Dissolved Solids (TDS) (mg/l) and Zinc (µgm/l) (Village Creek only);
o. 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 shall be collected bimonthly. Rainfall data and associated codes shall be recorded for each grab sample;
2. 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;
3. 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 competed. 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. 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.

W. 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.

X. 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, evapotranspirate (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 Code335-6-6-.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.

Alabama Stormwater Partnership Comments/Response to Comments

Comment (1): The Alabama Stormwater Partnership does appreciate the steps that Birmingham has taken to include all stakeholders in the creation of its post construction ordinance. Birmingham is the first municipality in the State that has invited any of us to participate in creating this important ordinance, and we applaud this first step. We ask that the SWMPP process include a similar stakeholder process with meetings that invite all interested stakeholders.

Response (1): Comment noted. Regarding the City's inclusion of stakeholders within the SWMPP process, Part II.B.2.b.1 of the draft permit does require the Permittee to seek and consider public input in the development, revision and implementation of the SWMPP.

Comment (2): According to the federal regulations, the permit must require a dry-weather field screening in order to stop illicit discharges. We understand from the City that it has a different way of detecting illicit discharges that does not include scheduled dry-weather field screening, but rather, Birmingham simply analyzes its flow data to determine illicit discharges. And in fact, the draft permit does not required a schedule for dry weather screening. This is a marked difference than what is required in the other permits, including the Mobile, Shelby County, Trussville, and Montgomery permits, which require the MS4 to screen 20% of all outfalls each year and 100% of all outfalls at least once per five years. While the draft permit does require a dry-weather screening "program", any language about a schedule for inspecting the outfalls is absent.

However, the federal regulations require dry-weather field screening of illicit discharges and a schedule for doing so. The regulations state that the SWMPP must include a program, "including a schedule, to detect and remove...illicit discharges...The proposed program shall include...(2) A description of procedures to conduct on-going field screening activities during the life of the permit, including areas or locations that will be evaluated by such field screens." 40 C.F.R. § 122.26.d.2.iv.B.3. "At a minimum, a screening analysis shall include a narrative description, for either each field screening point or major outfall, of visual observations made *during dry weather periods*." (emphasis added). 40 C.F.R. § 122.26.(d)(1)(iv)(D)(3).

We are concerned that the City's method of determining illicit discharges – analyzing flow data – will not be effective. It is unlikely that enough flow data exists at all the screening points to accurately determine whether there is an illicit discharge, especially for those screening points outside of Village Creek. The gaps between the screening points may be so large that it is impossible to isolate where the problem is coming from, even if a problem is well-known. For example, the illicit *E.coli* discharge on Shades Creek at Elder Street continued for years before it was detected. A dry-weather field screening program could have caught this problem. Additionally, dry-weather screening allows the MS4 to see and map all the pipes that run into the MS4. Further, not requiring a schedule for dry-weather screening for Birmingham sets a dangerous precedent for other MS4s. Even if we assume that Birmingham's illicit discharge program is effective, details of Birmingham's program is not codified or even mentioned in the draft permit. The permit should be revised to include either a schedule for dry-weather screening or at least a description of how the illicit discharges will be detected, with required adequate flow data.

Response (2): Please note that the 40 CFR 122.26 (d)(1)(iv)(D)(3) citation you provided was for the MS4 application process. However, as you stated in your comment, 40 C.F.R. § 122.26.(d)(1)(iv)(D)(3) does mention field screening points OR major outfalls. Sampling at field screening points is being performed by the City during periods of wet and dry weather. Outfall reconnaissance and sampling is also performed by the City in areas of suspected illicit discharges.

As stated in 40 CFR 122.26(d)(2)(iv)(B), permittees are required to include in their management program a description of a program, including a schedule, to detect and remove (or required the discharger to the municipal separate storm sewer to obtain a separate NPDES permit for) illicit discharges and improper disposal into the storm sewer. This program should include a description of procedures to conduct on-going field screening activities during the life of the permit, including areas or locations that will be evaluated by such field screens (40 CFR 122.26(d)(2)(iv)(B)(2). The draft permit does require the Permittee to implement a dry weather screening program designed to detect and address non-stormwater discharges to the MS4 (Part II.B.3.a.3). However, for clarification, Part II.B.3.a.3 of the draft permit has been modified to state "A dry weather screening program designed to detect and address non-stormwater discharges to the MS4. The Permittee will dry weather screen 100% of the City's screening points per year. This dry weather screening program will address, at a minimum, any flow, from an unidentified source, observed during the dry weather screening of an outfall. The City will sample, trace, and track the source of all identified dry weather flows, particularly within elevated stream peaking segments, each year of the permit cycle 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, and the City's SWMPP." The Department believes that this modification addresses the commenter's concern and complies with the federal regulation requirements.

Comment (3): The 1.1 inch post construction standard is ineffective to control the pollutants that are causing our waterbodies to be choked with sediment. We incorporate our comments on the Trussville, Shelby County, Pelham, Alabaster, Helena, Mobile, and Montgomery draft permits regarding this point, as well as the Cahaba River Society's comment. Additionally, any post construction program that includes redevelopment should consider incentivizing the cleaning of contaminated soils through stormwater retention techniques, for example through constructed wetlands.

Response (3): The intent of the draft permit is to require the Permittee 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 its MS4 consistent with Section 402(p)(3)(B) of the Clean Water Act and 40 CFR Part 122.26. 40 CFR 122.26(d)(2)(iv)(A)(2) is clear that the Permittee is responsible for controlling the **discharge of pollutants** in stormwater runoff from new developments and significant redevelopments. Regarding the comments that you incorporate by reference, please review our response to said comments.

Regarding the 1.1 inch rainfall over a 24-hour period preceded by a 72-hour antecedent dry period, this requirement is the basis for the design of the BMPs. Once the BMPs are installed, the landowners/developers will then be expected to operate and maintain the BMPs as designed, to the MEP. Again what constitutes MEP is not a "one size fits all," but is determined on a case-by case-basis, which means the provisions may be different for each Permittee based on numerous factors.

The Department encourages Permittees to implement BMPs that would work best for the Permittee for compliance with the Permit. The draft permit allows the flexibility for each Permittee to propose what practice(s) to utilize regarding their post-construction program in the SWMPP. The draft permit requires the Permittee to seek and consider public input in the development, revision and implementation of their SWMPP. As you note in your comments, the Permittee has previously reached out to your group regarding the development of their post-construction ordinance. Your desire to include a program incentivizing certain stormwater retention techniques during should be conveyed to the Permittee during this public input process.

Comment (4): Birmingham's monitoring program must require monitoring for Metals, Oil and Grease, and COD (Chemical Oxygen Demand), and the monitoring should be done with sondes. We appreciate that the bimonthly grab samples required is a greater frequency than has been required in previous MS4 permits that do not use sonde technology. However, it is disappointing that Birmingham is not being required to use sondes to monitor when smaller cities, such as Montgomery and Trussville are required to use them.

Additionally, the stormwater regulations require screening for COD, Oil and Grease, and Metals. For the representative samples that the MS4 must submit in its application, the regulations require that the MS4 submit samples of toxic metals, Oil and Grease, and COD. 40 C.F.R. 122.26 (d)(2)(iii)(A)(3). Birmingham has stated that monitoring for COD is unnecessary because it is testing for Conductivity; however, every other Phase I MS4 in Alabama has been required to monitor for COD in addition to Conductivity. Please explain why Birmingham, a City with large manufacturing and commercial activity, is excused from monitoring for both COD, conductivity, and Oil and Grease.

Testing for metals is practicable and needed, especially since heavy metals have been a consistent problem for Village Creek. Mobile, another industrial city, tests for Cadmium, Copper, Lead, and Zinc in its waterbodies. In a place like Birmingham, known as the Pittsburgh of the South, where metals and steel manufacturing played a vital role in the development of Birmingham, it is arbitrary and capricious not to test for metals. The primary metal manufacturing sector in Birmingham still employs five times the national average. Birmingham is home to major companies such as the American Cast Iron Pipe Company, McWane, U.S. Pipe and Foundry, Grede Holdings, Sloss Industries Corporation, and O'Neel Steel. Birmingham has the legal responsibility to ensure that they and others are not illicitly discharging these harmful parameters into the waters that we use to recreate.

Response (4): Regarding your comment concerning the use of sondes to collect sampling data was not **required** by the Department as your comment suggests, but **requested** by other MS4 Permittees to be included in their individual MS4 permits.

The draft permit, Part III.B.1. does require the Permittee to monitor conductivity at each monitoring station and metals (zinc) within Village Creek. As part of the application process for MS4 Phase I's in the 1990s, 40 CFR122.26(d)(2)(iii)(A)(3) required screening and/or analysis for the parameters listed in your comment above. The City monitored for these parameters until 2013 at which time, the City reviewed its monitoring plan to determine if the plan was beneficial, both fiscally and with regard to water quality concerns and improvements. The City determined through an evaluation of its 2009-2013 sampling data, the metals, as well as average oil and grease levels, were consistently below the limits of detection. Therefore, the City submitted a revised monitoring plan to focus on improving their water resources within the City's MS4 jurisdiction to potentially delist those streams and rivers from the impaired waters list and to demonstrate substantial water quality improvements in the future. Based on the City's history of their monitoring program through evaluation and analysis, along with EPA's input (2014), the Department believes that the City's monitoring program is adequate.

Many of the issues noted in your comment possibly result from industrial discharge activity. As stated in the draft permit, Part I.C.1. "Discharges that are mixed with sources of non-stormwater discharges that are in compliance with a separate NPDES permit or where those dischargers have been determined not to represent significant sources of pollution." Please keep in mind, that most of the industrial facilities listed in your comment are regulated under other ADEM NPDES permits which do contain permit limits and monitoring for both oil and grease and metals. Any concerns you may have regarding those facilities' permit limits should be addressed to the Municipal/Industrial Branch of ADEM. Also, Part II.B.10 of the draft permit does require the City to 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.

Cahaba River Society Comments/Response to Comments

Comment (1): We appreciate the clarification ADEM has incorporated at Part II.B.1.d.1 regarding the permittee's responsibility to report the number of inspections of the structural controls in the annual report.

Response (1): Comment Noted.

Comment (2): ***Public Education and Public Involvement on Storm Water Impacts*** - 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. We appreciate and support the stakeholder process currently underway for implementing the post-construction aspect of the upcoming permit. Birmingham could have a broader process on all aspects of the SWMPP. While we understand ADEM cannot require such an advisory committee, ADEM should encourage Birmingham to establish such a committee.

Response (2): 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 in the determination of 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.

Comment (3): ***Illicit Discharge Detection and Elimination (IDDE)*** – 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 Birmingham already adopted those procedures?

Response (3): The City has an IDDE program, as well as SOPs. It is the Department's understanding that the City is in the process of developing revisions to all SOP's required by the pending new Phase I permit.

Comment (4): The requirements outlined in this draft permit for dry weather screening for Illicit Discharge Detection and Elimination are described at Part II. B. 3. 3. this way:

> *3) A dry weather screening program designed to detect and address non-storm water discharges to the MS4 will be implemented as outlined in the SWMPP. 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...*

Birmingham's Stormwater Administrator, Mr. Tom Miller, has described Birmingham's dry-weather monitoring program utilized since 2013. However, the permit itself is supposed to include specific, measureable, and enforceable components, such as the dry-weather monitoring program, rather than relegating those to the SWMPP. It is important that dry-weather monitoring program requirements be subject to public comment. While by inclusion of these requirements in the SWMPP, those requirements become an enforceable component of the permit, the requirements, features, character, and quality of that monitoring program are not, by virtue of being in the SWMPP rather than being a part of the MS4 permit, subject to the same review and public comment afforded the MS4 permit. For example, the SWMPP is not, so far as we are aware, subject to challenge before the Environmental Management Commission as an MS4 permit would be. Nor is there a requirement for the permittee to respond to comments about a SWMPP in the way ADEM responds to comments about NPDES permits.

In addition to the SWMPP describing how Priority areas will be selected, the SWMPP should also include a description of the specific, measureable, and enforceable program elements of the dry-weather monitoring program.

Response (4): As stated in 40 CFR 122.26(d)(2)(iv)(B), permittees are required to include in their management program a description of a program, including a schedule, to detect and remove (or required the discharger to the municipal separate storm sewer to obtain a separate NPDES permit for) illicit discharges and improper disposal into the storm sewer. This program should include a description of procedures to conduct on-going field screening activities during the life of the permit, including areas or locations that will be evaluated by such field screens (40 CFR 122.26(d)(2)(iv)(B)(2)). The draft permit does require the Permittee to implement a dry weather screening program designed to detect and address non-stormwater discharges to the MS4 (Part II.B.3.a.3). However, for clarification, Part II.B.3.a.3 of the draft permit has been modified to state "A dry weather screening program designed to detect and address non-stormwater discharges to the MS4. The Permittee will dry weather screen 100% of the City's screening points per year. This dry weather screening program will address, at a minimum, any flow, from an unidentified source, observed during the dry weather screening of an outfall. The City will sample, trace, and track the source of all identified dry weather flows, particularly within elevated stream peaking segments, each year of the permit cycle 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, and the City's SWMPP." The Department believes that this modification addresses the commenter's concern and complies with the federal regulation requirements.

Part II.B.3 of the draft permit requires the Permittee to implement an ongoing program to detect and eliminate illicit discharges into the MS4, to the MEP. This includes procedures for tracing the source of a suspect illicit discharges, investigating portions of the MS4 that have the reasonable potential of containing illicit discharges (priority areas), and requiring the removal of an illicit discharge or improper disposal through an ordinance or regulatory mechanism. Part II.C. of the draft permit also requires the Permittee to have the legal authority to prohibit and eliminate illicit connections to the MS4 and control the discharge of spills and prohibit dumping or disposal of materials other than stormwater into the MS4. Part II.D. of the draft permit, requires the Permittee to perform an annual review of its SWMPP.

Part II.B.2.b.1 of the draft permit does require the Permittee to seek and consider public input in the development, revision and implementation of the SWMPP which includes monitoring plans.

Comment (5): ***Construction Site Storm Water Runoff Control*** – The table at the bottom of page 9 indicates the definition of 'Priority Constructions Sites' (which itself may be a typo as 'Constructions' should probably be singular) is found in 'Part V.Y.' The 'Definition' is actually found in 'Part X. Definitions'.

Response (5): Comment noted. The table at the bottom of page 9 of the draft permit has been corrected to state Part V.X. and "Constructions" has been changed to singular "Construction".

Comment (6): ***Post-Construction Stormwater Management in Qualifying New Development and Re-Development*** – ADEM has indicated they do not believe they have the authority to regulate stormwater volume. However, States must have the regulatory authority to enforce the minimum federal standards. If Alabama's statutes are a hurdle for adoption of maximum extent practical standards in MS4 permits, then those statutes fall short of what the federal laws require. ADEM should be seeking ways to address this shortcoming.

ADEM is aware that increased volume of stormwater runoff that accompanies urbanization causes significant amounts of in-stream bed and bank erosion. The only local hydrologic study that addressed the relative significance of this source of sediment loading in an Alabama stream found that nearly two thirds of the total sediment loading in Shades Creek was from these 'in-stream' bed and bank erosion sources. This MS4 permit should provide the City of Birmingham with the authority and tools needed to adequately address the largest source of sediment for Shades Creek, the Cahaba River, and the other urban streams in its boundaries.

Does ADEM recognize that hydrologic alteration due to increased stormwater runoff from urban areas is a documented and major source of stream impairment? In what ways is ADEM seeking to encourage better management of stormwater volume?

Response (6): 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.

Comment (7): 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 Shades Creek 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. If ADEM does not have the authority to regulate the *major source of pollutant loading* to the Cahaba River, then ADEM should be seeking ways to address this shortcoming, including regulatory and non-regulatory means.

ADEM's assertion that it may only regulate the 'direct' discharge of pollutants ignores the reality that increased stormwater volume ***causes discharge of pollutants***. Although indirect, 'pollutant discharge' is a result of increased stormwater volume from MS4 permittees. Not addressing pollutant discharge because that discharge is 'indirect' rather than 'direct' is an inadequate basis for ADEM's reticence to address this important source of pollutant loading. Upon which regulation does ADEM basis its assertion that pollution discharge must necessarily be a 'direct' discharge?

As the Alabama Stormwater Partnership has pointed out in 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. Using the 2.2" rain event as the basis for BMP design for the Birmingham area is an appropriate '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 goals cannot be met without improved control of stormwater volume.

ADEM's and the MS4s' response to in-stream erosion has been inadequate. ADEM should 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 cannot be reached because about two thirds of the problem has remained largely unaddressed.

How does this MS4 permit address 'urban stream syndrome'? How will ADEM facilitate MS4s in coming to grips with instream erosion and stream habitat alteration, the major source of pollutant loading to the Cahaba River, Shades Creek, Village Creek, Valley Creek, and Five Mile Creek?

Response (7): 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.

As you are aware, 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.

Comment (8): ***Spill Prevention and Response*** – The City of Birmingham should be encouraged to develop the pollution *prevention* aspects of this requirement. We urge ADEM to encourage other MS4s to emulate Hoover's Spill Prevention and Response Program.

Response (8): 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.

Comment (9): ***Pollution Prevention/Good Housekeeping for Municipal Operations*** **and** ***Application of Pesticides, Herbicide, and Fertilizers (PHFs)*** – Pesticides are found in 97% of urban streams. We have found that some Alabama municipalities (the City of Moody) use herbicides directly on stream banks to control vegetation. These two sections of this draft permit include a number of reasonable and appropriate requirements and measures to avoid misuse of pesticides. However, we encourage ADEM to take stronger or more direct measures to discourage pesticide and herbicide use where those substances will *undoubtedly* end up in our streams. We hope ADEM will use both educational and regulatory approaches to reduce the amount of pesticides and herbicides in streams. 'Following label directions' is not an adequate standard to keep PHFs out of our streams, as evidenced by widespread pollution of streams by PHFs.

Response (9): As stated, the draft permit does require the Permittee to 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 (Part II.B.8). The draft permit also requires training in safe use, storage and disposal of PHFs (Part II.B.8.a.7). Part II.B.2.b.5.iii.b. requires the Permittee's education program to include education for homeowners, landscapers, property managers, and city personnel regarding BMPs for use and storage of pesticides, herbicides and fertilizers.

Comment (10): ***Part II. E. Impaired Waters and Total Maximum Daily Loads (TMDLs)*** -- Among the most important requirements in this permit appear in part 3. a. under this section. ***We***

urge ADEM to include an additional sentence in Part II. E. 3. a. that clearly states that the MS4 is responsible for addressing and meeting the goals of applicable TMDLs. A careful reading of this section does indicate this responsibility, but some MS4s appear to be unaware that if they do discharge to a 303(d) or an EPA-approved TMDL stream, they should be undertaking the requirements of this paragraph of their MS4 permit. We are requesting ADEM use more direct language to articulate this MS4 responsibility.

Response (10): Part I.B.1. of the draft permit states that this permit authorizes all existing or new stormwater point source discharges to waters of the State of Alabama from those portions of the **MS4 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**. The Department believes that this current language in the draft permit addresses the commenter's concern.

Comment (11): ***Part II. D. SWMPP Plan Review and Modification*** – The SWMPP is an enforceable component of this Permit. We are currently participating in Birmingham's Post-Construction Stormwater Stakeholder process and have found that to be very helpful to us and, we hope, helpful to the City of Birmingham. We hope the SWMPP development process will utilize a similar format that will allow the kind of constructive feedback to the City that the Post-Construction Stormwater Stakeholder process has allowed.

Response (11): As you are aware, 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 the SWMPP development process noted in your comments.

Comment (12): ***Part III. Monitoring and Reporting ("You cannot manage what you do not measure")*** – The DRAFT permit calls for bimonthly monitoring of the Cahaba River, Village Creek, Valley Creek, Shades Creek, and Five Mile Creek. We appreciate that such monitoring is time consuming for the City's staff and expensive to process. We appreciate that the bimonthly frequency required here is a greater frequency than has been required in previous MS4 permits that do not use Sonde technology to meet their monitoring requirements.

The list of Monitoring Parameters to be analyzed from Grab samples includes fifteen different variables that are typically required in other Alabama MS4 permits. However, chemical oxygen demand (COD) has been omitted from this list for the Birmingham MS4 monitoring. COD monitoring requirements are found in MS4 permits for Alabaster, Bessemer, Homewood, Irondale, Mobile, Montgomery, Mountain Brook, Pelham, Shelby County, Tarrant, Trussville, and Vestavia Hills. This is not an exhaustive list, but just the permits we quickly checked.

ADEM is aware that COD is a valuable screening variable to monitor because COD measurement will reveal oxygen demand from both organic and inorganic sources. Moreover, if a water sample is toxic enough to kill the bacteria used to determine biological oxygen demand (BOD), then a COD assay would reflect oxidizing pollution despite that level of toxicity. For example, antifreeze, emulsified oils, and residual food wastes result in high COD. Peroxides, nitrates, nitrites, ammonia,

chlorates, perchlorates, hypochorites, and dichromates are examples of chemicals that would not be detected by BOD but would be detected by COD sampling.

We have discussed this concern with the City. Mr. Miller asserts that measurement of conductivity is an adequate surrogate for COD for his purposes. Mr. Miller has enormous experience and expertise with stormwater management, but we remain unconvinced that conductivity, a measure of water's capacity to pass electricity, is sufficiently related to the potential oxygen consumptive capacity of chemicals and organic materials in water to be a substitute for COD. The research we have been able to find shows only a modest correlation between COD and a *combination of turbidity and conductivity*. Does ADEM have a solid basis for presuming conductivity is a good surrogate for COD? Did Birmingham provide a regression analysis that reflects a statistically reliable relationship between these variables for their MS4 discharges?

Similarly, monitoring of Oil and Grease monitoring has been dropped in this permit. Oil and Grease are common urban stormwater pollutants. We frequently see oil sheens created by petroleum products leaking from vehicles and service stations. We have not heard a sound reason why monitoring these pollutants and pollutant surrogates should cease. Why have monitoring requirements for these variables been dropped? We assert that COD and Oil & Grease monitoring should be required in this permit.

Response (12): Regarding your comment concerning the use of sondes to collect sampling data was not **required** by the Department as your comment suggests, but **requested** by other MS4 Permittees to be included in their individual MS4 permits.

As part of the **application process** for MS4 Phase I's in the 1990s, 40 CFR Part 122.26(d)(2)(iii)(A)(3) did require samples be collected from MS4 outfalls and analyzed for numerous parameters including those listed in your comment above. The City of Birmingham, as a part of the Stormwater Management Authority (SWMA), did sample those parameters listed above from its beginning as a Phase I MS4 through 2013. The City withdrew from SWMA in 2008 but continued to monitor the parameters that had been monitored for them by SWMA through September 2013. During the application process for an individual Phase I MS4 permit, the City reviewed its monitoring plan to determine if the current plan demonstrated effectiveness regarding the City's MS4 program. Based on EPA's Audit response letter, dated April 29, 2011, EPA concurred with the City regarding the City's existing monitoring program did not properly characterize and determine the effectiveness of the MS4 program. As such, the City performed a 47-month sampling investigation that demonstrated the City did need to provide a more cost effective method of obtaining better data and locating potential sources of pollution. (Oct. 4, 2013). In October 2013, the City submitted a monitoring plan to the Department that would help to enable the City to develop a more proactive plan to address pollution abatement within its MS4. In 2014, the City met with EPA to discuss the direction of the City's MS4 program (to include monitoring). In EPA's response letter, dated July 2, 2014, EPA stated its appreciate to the City for its excellent leadership in striving towards a robust MS4 program.

Comment (13): We support the requirement that '*Rainfall data and associated codes shall be recorded for each grab sample;*' rather than making specific requirements about the timing of precedent rain events. Heavy metal contamination is often a problem in urban streams, affecting

water and stream sediment quality. ADEM has required Birmingham's MS4 program to monitor for zinc in Village Creek. Was the decision to require monitoring zinc based on a previous screening effort? Were Village Creek and other Birmingham streams screened for a range of heavy metal problems? Birmingham's streams have a greater potential for heavy metal contamination than most other Alabama metropolitan areas. ***Given the industrial history of Birmingham, we urge ADEM and Birmingham to coordinate on heavy metal screening and monitoring efforts that goes beyond what is proposed in this DRAFT permit.*** Either the City or ADEM should evaluate whether or not heavy metal pollution occurs in the streams covered by this permit. Similarly, this permit does not require water quality monitoring for pesticides and herbicides. Such monitoring does not need to occur on a bimonthly basis, but some effort to assess whether PHFs and heavy metals are present should be made. PHFs and heavy metals are pollutants and the MS4 Program goal is to reduce discharge of pollutants from the MS4.

Response (13): A metal (zinc) TMDL was established for Village Creek in 2005, as such the City is monitoring for zinc in Village Creek. The City of Birmingham has historically monitored for PHFs (Dieldren). However monitoring is not being required at this time since it has been determined that Dieldren is a Legacy Pollutant and not a pollutant that the Department expects to be found in stormwater runoff.

Part II.B.10 of the draft permit does require the City to 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. Your statement regarding industrial history, industrial facilities may be regulated under other ADEM NPDES permits which may require monitoring for metals. Also, as stated in the draft permit, Part I.C.1, "Discharges that are mixed with sources of non-stormwater discharges that are in compliance with a separate NPDES permit or where those dischargers have been determined not to represent significant sources of pollution."

Comment (14): ***Part IV. Annual Reporting Requirements*** -- For the sake of clarity, the requirement to report on the monitoring required by Part II. E. 3. a. should also be included with the Reporting Requirements described in this section.

Response (14): The Department believes that the language is clear in Part II.E.3.a. that monitoring data is to be included in the Annual Report.

Response to Comments Black Warrior RiverKeeper

Comment (1): The permit as drafted does not tailor the program to address priority pollutants of concern, in this case, focusing education and outreach efforts on nutrients, metals, pesticides, pathogens, and siltation (Village Creek) and nutrients (Valley).

Response (1): Regarding the program addressing priority pollutants of concern, Part II.B.2.b.2 of the draft permit requires the Permittee to identify targeted pollutant sources the Permittee's public education program is intended to address. Since the draft permit also requires the Permittee to seek and consider public input in the development, revision and implementation of the SWMPP, the commenter can also engage the Permittee with respect to their public education and outreach program and the pollutants this program is intended to address.

Comment (2): The permit as drafted does not tailor the program to target and reach specific audiences and communities, including commercial, industrial and institutional entities.

Response (2): The draft permit, in Part II.B.2.a., requires the permittee to 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 stormwater runoff to the MEP. Part II.B.2.b.5 of the draft permit requires the Permittee to inform individuals and groups on how to become involved in the stormwater program. 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: General Public, Businesses (to include Home-Based and Mobile Businessess), Homeowners, Landscapers, Property Managers, City Personnel, Land Use Planners, Contractors, and Developers. The draft permit requires, in Part II.B.10, the Permittee to 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.

Comment (3): The permit as drafted does not require that annual reports and the Stormwater Management Plan ("SWMP") be accessible to the public on a website maintained by the City.

Response (3): Part II.B.2.d of the draft permit requires the Permittee to post the current SWMPP and latest Annual Report on the Permittee's website.

Comment (4): The permit as drafted does not incorporate specific or quantifiable requirements for Dry Weather screening of outfalls over the term of the permit.

Response (4): As stated in 40 CFR 122.26(d)(2)(iv)(B), permittees are required to include in their management program a description of a program, including a schedule, to detect and remove (or required the discharger to the municipal separate storm sewer to obtain a separate NPDES permit for) illicit discharges and improper disposal into the storm sewer. This program should include a description of procedures to conduct on-going field screening activities during the life of the permit, including areas or locations that will be evaluated by such field screens (40 CFR

122.26(d)(2)(iv)(B)(2)). The draft permit does require the Permittee to implement a dry weather screening program designed to detect and address non-stormwater discharges to the MS4 (Part II.B.3.a.3). However, for clarification, Part II.B.3.a.3 of the draft permit has been modified to state "A dry weather screening program designed to detect and address non-stormwater discharges to the MS4. The Permittee will dry weather screen 100% of the City's screening points per year. This dry weather screening program will address, at a minimum, any flow, from an unidentified source, observed during the dry weather screening of an outfall. The City will sample, trace, and track the source of all identified dry weather flows, particularly within elevated stream peaking segments, each year of the permit cycle 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, and the City's SWMPP." The Department believes that this modification addresses the commenter's concern and complies with the federal regulation requirements.

Comment (5): The permit as drafted does not identify specific, detailed and measurable plans or procedures to locate priority areas likely to have illicit discharges, trace the source of these illicit discharges, remove the source of these discharges, and assess and evaluation the program.

Response (5): Part II.B.3 of the draft permit requires the Permittee to implement an ongoing program to detect and eliminate illicit discharges into the MS4, to the MEP. This includes procedures for tracing the source of a suspect illicit discharges, investigating portions of the MS4 that have the reasonable potential of containing illicit discharges (priority areas), and requiring the removal of an illicit discharge or improper disposal through an ordinance or regulatory mechanism. Part II.C. of the draft permit also requires the Permittee to have the legal authority to prohibit and eliminate illicit connections to the MS4 and control the discharge of spills and prohibit dumping or disposal of materials other than stormwater into the MS4. Part II.D. of the draft permit, requires the Permittee to perform an annual review of its SWMPP.

Comment (6): The permit as drafted does not specify plans or procedures to properly dispose of waste removed from separate storm sewers.

Response (6): The proper disposal of solid waste would be considered under Part V.O. of the draft permit which states "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."

Comment (7): The permit as drafted does not include any requirement or component that the urban, largely built out Birmingham MS4 develop and implement plans to retrofit a specific number of stormwater problem areas per year in existing developed areas.

Response (7): The draft permit requires in Part II.B.7.a.8 requires the Permittee to assess the water quality impacts for those flood management projects owned, operated or 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. This language is consistent

with the federal regulations, along with other recently issued MS4s. Also, regarding retrofits to address post-construction runoff, 40 CFR 122.26(d)(2)(iv)(B)(2) requires stormwater management plans address the discharge of pollutants from new and significant redevelopment, not retrofits for existing developments.

Comment (8): The permit as drafted refers to, but does not include, specific maintenance activities, maintenance schedules, and long term inspection procedures for structural and non-structural storm water controls to reduce pollutants discharged from separate storm sewers

Response (8): Part II.B.1.b of the draft permit requires the Permittee to inspect existing and newly constructed structural controls on a semi-annual basis, at a minimum. Regarding post construction structural and/or non-structural BMPs, the Permittee is required, in Part II.B.5.a.7. of the draft permit, to either perform or require the performance of, at a minimum, an **annual inspection** to ensure that design standards are being met and requires corrective actions for poorly functioning or inadequately maintained post construction BMPs.

Comment (9): The permit as drafted does not include concrete and specific plans to address and reduce the large volume of trash that the Birmingham MS4 contributes to Valley and Village Creeks.

Response (9): Part II.B.2.b.3. of the draft permit requires the Permittee to specifically address the reduction of litter, floatables, and debris from entering the MS4. Part II.B.7.a.2 of the draft permit requires that the Permittee 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: Direct removal of trash from waterbodies; Direct removal of trash from the MS4; Direct removal of trash prior to entry into the MS4; Prevention through disposal alternatives; and Prevention through waste reduction practices, additional enforcement, and/or initiatives. Also, Part II.B.7.a.3 requires the following measures 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: Arrangement for temporary protection of preventative measures to the catch basins, where feasible; and provide proper disposal of trash receptacles, clean of catch basins, as needed, and grounds of the event area within one business day subsequent to the event.

Comment (10): Just as concerning, the MS4 permit leaves much of the program's "heavy lifting" to the SWMP, to be developed after the permit takes effect. For several important reasons, we think this large scale deferral takes the program in the wrong direction, most notably because: While the public participation is mention, there is no mechanism or requirement for public review, involvement or comment upon the SWMP; there is no mechanism for ADEM review or approval of the SWMP; the permit only requires that ADEM "acknowledge" the filing of the SWMP; and since the SWMP will contain nearly all of the substantive requirements for discharges from the MS4, the public has a statutory right to review and offer comment on the SWMP, which is not provided.

Response (10): The SWMPP must be reviewed annually by the Permittee to determine the effectiveness of the BMPs and requires the Permittee to make modifications as necessary to maintain compliance with the permit. As required in Part II.D.1. of the draft permit, the Permittee shall implement plans to seek and consider public input in the development, **revision** and implementation the SMWPP, as required by Part II.B.2.b.1 of the draft permit. As stated in CFR 40 CFR 122.26(a)(3)(v) permits for all or a portion of all discharges from large or medium municipal separate storm sewer systems that are issued on a system-wide, jurisdiction-wide, watershed or other basis may specify different conditions relating to different discharges covered by the permit, including **different management programs** for different drainage areas which contribute stormwater to the system. As such, the Department believes that the permitted entity should be granted flexibility in proposing what BMPs are appropriate to fulfill the applicable minimum control measures and satisfy the MEP standard. These proposed specific BMPs are detailed in SWMPPs and their appropriateness is determined in conjunction with the Department's review and comments. The Permittee must submit an Annual Report, which is also available for public review that details the compliance, implementation and assessment of the program elements in Part II of the draft permit. The Department also reviews these Annual Reports and comments when appropriate.

Comment (11): For impaired or TMDL waters, the permit lacks: objective standards to address impaired waters or achieve TMDLs. For example, even though Village Creek has TMDLs for pesticides and nutrients caused by urban runoff, the permit makes no mention of this fact nor does it specify what measures or limits the City must employ to meet the Village Creek TMDLs or applicable TMDLS for other waterbodies within the MS4; A TMDL compliance plan which specifies measurable goals which address the quantity or scheduling of compliance components related to TMDLs; a detailed sampling plan for pollutants of concern.

Response (11): Since MS4s permits are BMP-based and currently do not have numeric limits, compliance with TMDLs will be demonstrated and documented through implementation of appropriate BMPs as outlined in stormwater management plans. This draft permit provides specific requirements, along with monitoring, required to be addressed by the Permittee's Stormwater Management Program Plan (SWMPP), including BMPs which are adequate and appropriate to assist in compliance with the TMDLs. Part II.E. of the draft permit requires the Permittee to 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.

Also, Part III.A.2 of the draft permit states 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.

Comment (12): ***The Draft MS4 Permit Fails to Provide a Meaningful Opportunity for Public Review and Comment upon the SWMP; and (2) for ADEM Review and Approval of the SWMP.*** The permit's failure to include adequate opportunity for the public to review and contribute to the SWMP, or to require ADEM review and approval of the SWMP contravenes the Clean Water Act. Public participation in the issuance of NPDES permits has been a cornerstone of the Clean Water Act for the past thirty-five years. *See Costle v. Pac. Legal Found.*, 445 U.S. 198, 216, (1980) (noting the "general policy of encouraging public participation is applicable to the administration of the NPDES permit program.") Both federal and state law require that ADEM provide interested members of the public with an opportunity to review permits, offer comments, and request public hearings to present more complete testimony. *See* 33 U.S.C. § 1251(e), 1342(b)(3); Ala. Admin. Code r. 335-6-6-.21.

In *Envtl. Def. Ctr. v. EPA*, 344 F.3d 832 (9th Cir. 2003) (hereinafter "*EDC*"), the court vacated several provisions in Phase II rules governing the federal small MS4 general permit program, including, specifically, provisions for agency review and public notice and participation procedures. The Ninth Circuit began by noting that small MS4 general permits typically ensure compliance with the Clean Water Act by requiring each discharger to implement "an individualized pollution control program that addresses each of the six general criteria specified in the Minimum Measures" and by explaining this individualized plan in its Notice of Intent ("NOI"). 344 F.3d at 853. Based on these requirements, the court concluded that the NOI crosses the threshold from being an item of procedural compliance to being a substantive component of a regulatory regime" and is therefore "functionally equivalent to a detailed application for an individualized permit." Id. At the time, however, EPA's Phase II rules did not require a permitting agency to review MS4 NOIs or SWMPs to ensure compliance with Clean Water Act standards. This, the court concluded, amounted to impermissible self-regulation:

> Under the Phase II rule, in order to receive the protection of a general permit, the operator of a small MS4 needs to do nothing more than decide for itself what reduction in discharges would be the maximum practicable reduction. No one will review that operator's decision to make sure that is was reasonable or even in good faith. Therefore, as the Phase II Rule stands, EPA would allow permits to issue that would do less than require controls to reduce the discharge of pollutants to the maximum extent practicable.

The court found that dischargers are not precluded from designing aspects of their own stormwater programs, but only so long as self-designed programs are, "in every instance,[] subject to meaningful review by an appropriate regulating entity to ensure that each such program reduces the discharge of pollutants to the maximum extent practicable." Id. at 856. The court further held, for the same reasons that the NOIs developed under these rules were subject to the Clean Water Act's public availability and public hearings requirements. Id. ("clear Congressional intent requires that NOIs be subject to the Clean Water Act's public availability and public hearings

requirement. ... Thus, if the Phase II Rule does not make NOIs 'available to the public,' and does not provide for public hearings on NOIs, the Phase II Rule violates the clear intent of Congress...").

The Second Circuit fully adopted the reasoning of *EDC* in reviewing similar permit procedures for concentrated animal feeding operations (CAFOs), which require operators to develop and implement individualized nutrient management plans (NMPs) and other BMPs. *See Waterkeeper Alliance, Inc. v. EPA*, 399 F.3d 486, 499-500 (2d Cir. 2005) (agencies must review self-designed discharge management plans to ensure compliance with Clean Water Act standards).

The reasoning behind these two decisions applies equally to the self-regulation scheme contemplated by the draft permit here. As with the NOI submitted by municipal dischargers in *EDC* and CAFO operators in *Waterkeeper*, Birmingham is required to develop a SWMP implementing the Minimum Control Measures and thus it is the SWMP which contains nearly all of the substantive requirements for discharges from the MS4. As such, the SWMP constitutes "effluent limitations," which the public has a right to review and offer comment upon. *See* 33 U.S.C. 1342(b)(3), see also *Waterkeeper*, 399 F. 3d at 503; EDC, 344 F.3d at 856.

We ask ADEM and the City to revise the permit to specifically provide for public involvement, to include notice and comment period for the SWMP. Copies of the SWMP should be made available for public review at local public libraries, the City Clerk's office and in electronic form via the Internet at least 30 days before the SWMP is finalized. In addition, any major modifications to the SWMP must be open for public review and comment as well.

Response (12): Regarding the Phase II Remand Rule, the 9th Circuit remanded the Phase II rule's provisions for small MS4 general permits because they lacked procedures for permitting authority review and public notice and the opportunity to request a hearing on NOIs submitted under the general MS4 permits. FR/Vol. 81, No. 237 page 89323. This permit is a Phase I permit for which a public comment period was held and the opportunity to request a public hearing was available.

Regarding the storm water management program (SWMP), the City of Birmingham has developed a SWMP detailing their stormwater management activities it carries out to meet the current permit requirements. Activities that were undertaken have been detailed in numerous annual reports the City has submitted to the Department. Please be advised that Part II.D.1. of this permit requires the Permittee to submit to the Department for review a storm water management program plan (SWMPP) within nine months of the effective date of the permit to detail the City's BMPs that will be implemented to meet the requirements of this permit. This plan should include any updates that the City will make to its current stormwater management activities. The Department will review the SWMPP and provide comments on the plan as necessary. The Department's "acknowledgement" of the plan would not be provided until all of the Department's comments are adequately addressed. Furthermore, Part II.D.1. of the permit also requires the Permittee to 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. of the permit. The permit complies with all applicable Federal and State laws and regulations, and no changes have been made to it in response to this comment.

Comment (13): ***The Draft MS4 Permit Should Include a TMDL Compliance Plan.*** The Permit fails to include specific requirements for programs and other practices to reduce pollutants of concern in § 303(d) or TMDL waters. As a result, the Permit contains no measurable goals addressing the quantity or scheduling of compliance components related to TMDLs. These goals are critical to achieving TMDLs in the impaired waterbodies in the MS4.

We note with considerable concern that the TMDL compliance strategy outlined in Part E. of the Permit is sorely inadequate. The emphasis in the permit is more on "determining" whether the Birmingham MS4 discharges into a §303(d) or TMDL stream, and then employing generic BMPs, which is not adequate.

The Permit should incorporate a specific, measurable TMDL compliance plan that includes requirements to implement control measures which will meaningfully reduce contributions of pollutants of concern. Tailored to specific watershed allocations and water quality needs, such measures may include retrofits, source controls, and other BMPs. The Permit should also incorporate a more robust monitoring program to ensure that TMDL waste load allocations and goals are being considered and addressed by the City.

Response (13): The intent of the draft permit is to require the Permittee 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 its MS4 consistent with Section 402(p)(3)(B) of the Clean Water Act and 40 CFR Part 122.26. Please also see Response (11) above.

Comment (14): ***The Permit Should Be Revised to Include More Specific Design, Implementation, and Practice Requirements.*** Rather than providing explicit and effective direction to the City, important pollution prevention measures are deferred to the judgment of the permittee, who is obliged to produce a SWMP, but not to have the SWMP approved by ADEM. This approach is entirely insufficient for meaningful control of stormwater discharges as it provides only scant guidance to the City and improperly delegates a significant part of the Department's permitting authority ... to the same entity proposing to be covered by the Permit. When coupled with ADEM's inability to review each permittee's SWMP, the absence of meaningful requirements within the "four corners" of the Permit becomes a recipe for unguided self-permitting. A similar "impermissible self-regulatory permitting scheme" was rejected by the Ninth Circuit in EDC and the Second Circuit in *Waterkeeper*, because the absence of agency review over the permittee's plans to substantively comply with the permit violated the provisions of the Clean Water Act requiring a permitting agency to "insure compliance with any applicable [effluent limitations and standards]." 399 F.3d, at 498.

In order to avoid this improper delegation of its permit issuance and approval authority, ADEM must either (1) include in the Permit a provision requiring the Department's review and *approval* of the SWMP (not just "acknowledgement"); or (2) revise the Permit to explicitly set forth comprehensive conditions that "assure compliance with [all applicable requirements, including effluent limitations.]" Id., citing 33 U.S.C. § 1342(a)(2).

Response (14): The SWMPP must be reviewed annually by the Permittee to determine the effectiveness of the BMPs and requires the Permittee to make modifications as necessary to maintain compliance with the permit. As required in Part II.D.1. of the draft permit, the Permittee shall implement plans to seek and consider public input in the development, **revision** and implementation the SMWPP, as required by Part II.B.2.b.1 of the draft permit. As stated in CFR 40 CFR 122.26(a)(3)(v) permits for all or a portion of all discharges from large or medium municipal separate storm sewer systems that are issued on a system-wide, jurisdiction-wide, watershed or other basis may specify different conditions relating to different discharges covered by the permit, including **different management programs** for different drainage areas which contribute stormwater to the system. As such, the Department believes that the permitted entity should be granted flexibility in proposing what BMPs are appropriate to fulfill the applicable minimum control measures and satisfy the MEP standard. These proposed specific BMPs are detailed in SWMPPs and their appropriateness is determined in conjunction with the Department's review and comments. The Department also reviews these SWMPPs and comments when appropriate.

Comment (15): ***Metalplate Galvanizing Offers a Compelling Example of IDDE and Industrial Stormwater Permitting Flaws That Must Be Addressed by ADEM and the City.*** Metalplate Galvanizing Plant No. 1 (AL0080403) discharges to a storm sewer that empties into an unnamed tributary of Village Creek. Village Creek has a TMDL for zinc. Because of problems we identified with chronic noncompliant stormwater discharges from this facility, ADEM has been working on the facility's individual stormwater permit for nearly ten years. It is still in draft form.

Even now, the most recent version of the draft permit does not limit zinc, even though the facility discharges to a TMDL water and we have reported numerous sample test results with excessive concentrations of zinc. On February 28, 2011 our Riverkeeper Nelson Brooke took samples after a heavy, but fairly short, rain event. At Metalplate No. 1, the sample results indicate aluminum at 0.39 mg/L; iron at 2.1 mg/L; zinc at 40 mg/L; TDS at 190 mg/L; and TSS at 71 mg/L. We have consistently provided earlier sample results which also showed high levels of iron, zinc, TDS and TSS as well as detectable levels of several other metals. And Metalplate's own discharge monitoring reports (DMRs) also indicate excessive concentrations of TSS, zinc and other metals. We have notified ADEM and the City.

Our sampling of wastewater being discharged by Metalplate's outfall and the facility's DMRs indicate that this is not legacy contamination, but rather it is coming directly from Metalplate's operations. Based upon the sample results, what they are discharging is not just stormwater: it is stormwater contaminated by process water or other effluent. During our inspections, our Riverkeeper noted a large volume of wastewater being discharged by Metalplate No. 1. The volumes being discharged by this facility greatly exceeded what was seen leaving other properties in the vicinity.

Despite our reported observations over nearly ten years, there are no zinc limitations prescribed for Metalplate. Upon information and belief, the City of Birmingham does not monitor Metalplate as part of its IDDE program. Upon information and belief, there is no testing or monitoring at or

downstream of the facility by the City of Birmingham. In short, there are no consequences for Metalplate at all.

Metalplate is a prime example of why we ask ADEM and the City to ensure that the Permit, together with its implementation and enforcement, identifies and meaningfully addresses industrial stormwater contributions like Metalplates's. The facility's contributions of zinc to the MS4, and ultimately Village Creek, are why we think that the Permit's TMDL and impaired waters provisions are inadequate as written.

Response (15): The draft permit requires the Permittee to monitor Village Creek for zinc on a bimonthly basis. Part II.B.10 of the draft permit does require the City to 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. Many of the issues noted in your comment possibly result from the discharge of an industrial activity. As stated in the draft permit, Part I.C.1. "Discharges that are mixed with sources of non-stormwater discharges that are in compliance with a separate NPDES permit or where those dischargers have been determined not to represent significant sources of pollution." Please keep in mind, that the industrial facility listed in your comment is regulated under other ADEM NPDES permits which does require monitoring for metals. Any concerns you may have regarding that facility's permit limits should be addressed to the Municipal/Industrial Branch of ADEM.

EPA Region 4 Comments on the NPDES Draft Phase I MS4 Permit for the City of Birmingham – ALS000032

Comments/Response to Comments

Comment (1): The Permittee is required to develop and implement a monitoring plan for streams receiving MS4 discharges, in order to provide data to be used to assess the effectiveness and adequacy of BMPs implemented under the SWMPP. Several Birmingham area permits (including Trussville, Pleasant Grove, Midfield, Hueytown, Gardendale, Fairfield, Brookside, Brighton, Adamsville, Lipscomb and Bessemer) require in Part II.B.3.a.(3)(page 8) of the draft permit a dry weather screening program, designed to detect and address non-stormwater discharges to the MS4. The 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) of the 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.

The draft permit Part II.B.3.a.(3)(page 8) states that the dry weather screening program be designed to detect and address non-stormwater discharges to the MS4 and implemented as outlined in the SWMPP. 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.

Please consider adding to the draft permit a more specific and measurable schedule for dry weather screening as outlined in the other Birmingham area permits.

Response (1): As stated in 40 CFR 122.26(d)(2)(iv)(B), permittees are required to include in their management program a description of a program, including a schedule, to detect and remove (or required the discharger to the municipal separate storm sewer to obtain a separate NPDES permit for) illicit discharges and improper disposal into the storm sewer. This program should include a description of procedures to conduct on-going field screening activities during the life of the permit, including areas or locations that will be evaluated by such field screens (40 CFR 122.26(d)(2)(iv)(B)(2). The draft permit does require the Permittee to implement a dry weather screening program designed to detect and address non-stormwater discharges to the MS4 (Part II.B.3.a.3). However, for clarification, Part II.B.3.a.3 of the draft permit has been modified to state "A dry weather screening program designed to detect and address non-stormwater discharges to the MS4. The Permittee will dry weather screen 100% of the City's screening points per year. This dry weather screening program will address, at a minimum, any flow, from an unidentified source, observed during the dry weather screening of an outfall. The City will sample, trace, and track the source of all identified dry weather flows, particularly within elevated stream peaking segments, each year of the permit cycle 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, and the City's SWMPP." The Department believes that this modification addresses EPA's concern and follows the federal regulation requirements.

Comment (2): Phase I regulatory application requirements [40 C.F.R. 122.26(d)(2)(iii)(A)(3)] provide a list of sampling requirements, including monitoring for oil and grease and chemical oxygen demand (COD). Part III.B.1 (page 20) of the draft permit does not require sampling for oil and grease or COD. Other Birmingham area permits (including Trussville, Pleasant Grove,

Midfield, Hueytown, Gardendale, Fairfield, Brookside, Brighton, Adamsville, Lipscomb and Bessemer) contain these parameters on their list of sampling requirements. Please clarify why these parameters are not required in the draft permit.

Response (2): As part of the **application process** for MS4 Phase I's in the 1990s, 40 CFR Part 122.26(d)(2)(iii)(A)(3) did require samples be collected from MS4 outfalls and analyzed for numerous parameters including those listed in your comment above. The City of Birmingham, as a part of the Stormwater Management Authority (SWMA), did sample those parameters listed above from its beginning as a Phase I MS4 through 2013. The City withdrew from SWMA in 2008 but continued to monitor the parameters that had been monitored for them by SWMA through September 2013. During the application process for an individual Phase I MS4 permit, the City reviewed its monitoring plan to determine if the current plan demonstrated effectiveness regarding the City's MS4 program. Based on EPA's Audit response letter, dated April 29, 2011, EPA concurred with the City regarding the City's existing monitoring program did not properly characterize and determine the effectiveness of the MS4 program. As such, the City performed a 47-month sampling investigation that demonstrated the City did need to provide a more cost effective method of obtaining better data and locating potential sources of pollution. (Oct. 4, 2013). In October 2013, the City submitted a monitoring plan to the Department that would help to enable the City to develop a more proactive plan to address pollution abatement within its MS4. In 2014, the City met with EPA to discuss the direction of the City's MS4 program (to include monitoring). In EPA's response letter, dated July 2, 2014, EPA stated its appreciate to the City for its excellent leadership in striving towards a robust MS4 program. A copy of the letters noted above are attached for your reference.

Comment (3): Part III.C.1.-2(page 21). The draft permit does not specify that grab samples be collected after 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. This requirement is included in other Birmingham area permits (including Trussville, Pleasant Grove, Midfield, Hueytown, Gardendale, Fairfield, Brookside, Brighton, Adamsville, Lipscomb and Bessemer). Please consider adding this specificity to the draft permit.

Response (3): This was a requested change in the monitoring plan submitted to the Department in 2013. The purpose is to collect samples bi-monthly at all sites, instream and screening, regardless of rainfall conditions. Rainfall measures will be identified and reported for each three day period prior to sampling and on the day of sampling to ensure data development can be characterized based on antecedent and actual rainfall conditions at the time of collections. This approach also has the potential to increase the discovery of illicit discharges during dry weather samplings, which was something EPA addressed in the April 29, 2011 letter.

Comment (4): EPA recognizes that ADEM made significant improvements to the previous version of the permit and appreciates the efforts.

Response (4): Comment noted.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

APR 29 2011

RECEIVED
MAY - 4 2011
WATER DIVISION

CERTIFIED MAIL 7003 1680 0001 0750 4749
RETURN RECEIPT REQUESTED

The City of Birmingham
c/o Honorable William Bell
Mayor of Birmingham
710 North 20th Street
Birmingham, Alabama 35203

Re: NPDES Permit No. ALS000001 - Storm Water Management Authority, Inc.
City of Birmingham Municipal Separate Stormwater Sewer System Audit

Dear Mayor Bell:

The U.S. Environmental Protection Agency (EPA), Region 4 would like to thank you and the City of Birmingham (City) for your written response to our Compliance Stormwater Audit (Audit) Report. We are encouraged by the City's commitment to improving its Municipal Separate Storm Sewer System (MS4). EPA also apologizes for the lateness in our reply to your response.

While we understand that the City has been diligently working to develop and implement the MS4 Program, EPA's expectations for performance go beyond the scope of what the City has implemented thus far. You may access copies of EPA's *MS4 Permit Improvement Guide* and *MS4 Program Evaluation Guidance* at www.epa.gov/npdes/pubs. These documents will provide additional clarity regarding EPA's expectations for MS4 Programs and future permit requirements. While we appreciate the work completed by the City, in order to ensure implementation of controls to reduce the discharge of pollutants to the maximum extent practicable as required by the Permit, EPA feels that the City should be further developing its MS4 Programs in the following areas:

Stormwater Management Plan (SWMP) – as stated in the City's response, clearly established qualitative and quantitative goals for meeting *Maximum Extent Practical* are not contained in the current SWMP. Incorporation of new and expanded programs; i.e., the Industrial Program, new ordinances, and spill procedures should be included. EPA encourages program implementation at the earliest possible date to protect water quality and ensure compliance with the MS4 Permit. The SWMP should also detail coordination between departments implementing the MS4 Program.

New Development and Regional Master Planning – The City appears to have controls in place. The City's response indicated that the post-development runoff rate requirements are part of the Subdivision Regulations. The 1996 Subdivision Regulations are focused on wastewater and do not address stormwater so the City appears to be referencing the Engineering Design Guidelines. While the City can choose to deny a permit if the Engineering Design Guidelines are not met, it does not appear that there are enforcement mechanisms in place since these are not part of a regulation or ordinance. Even though

the City is not required to have regulations or ordinances related to stormwater management at this time; it is recommended to ensure minimization of the discharge of pollutants from new development.

Illicit Discharges and Improper Disposal – EPA has the following comments to the City's response and the City's 2009 Annual Report (AR):

1. Page 12 and page 2-5 (AR) - One of the weaknesses expressed by the City in their assessment of their MS4 program is the need to enhance the Illicit Discharge Detection and Elimination (IDDE) Program enforcement. The City's illicit provisions are currently in the Soil Erosion and Sediment Control Ordinance, existing plumbing code, Jefferson County Sewer Use Ordinance, Oil and Grease Program, sanitary sewer overflow (SSO) regulations, public health regulations and environmental codes. It is recommended that the City adopt an IDDE ordinance similar to EPA's model in order to strengthen and unify existing regulations, codes, and policies.
2. Page 12 - The sanitary sewers in the City are owned, operated and maintained by Jefferson County who is under consent decree to eliminate SSOs. However, the City needs to have a program and procedure in place to minimum the infiltration of seepage from Jefferson County's sanitary sewers into the City's MS4 system.
3. Page 13 - The City stated it has done work to address issues concerning outfall inspections, sampling protocols, screening methodologies, testing methods, follow-up inspections and investigations and protocols and compliance for elimination of any known illicit discharges. Documentation of these work items are in IDDE Field Manual. Please submit this revised IDDE Field Manual for review.

Spill Prevention and Response - The City's response indicated that the City has a Standard Operating Procedure (SOP) related to Spill Prevention and Response. However, EPA did not review a copy of the SOP at the time of the Audit; a copy was not provided in the City's response. Therefore, the City should provide a copy of the SOP on Spill Prevention and Response, which addresses: spills of all types; the roles and responsibilities of each responding department; contacting MS4 staff during events; gathering necessary information at the time of the response; and conducting an evaluation of the results and affects on the MS4. EPA requests a summary of the spills and their effects on the MS4; this type of listing should be included in the Annual Reports.

Industrial Program – An Industrial Program should be developed and implemented which addresses industrial, commercial and municipal facilities, which have the potential to contribute substantial pollutant loads to the MS4. The Industrial Program should include the adoption and/or modification of ordinances to the extent necessary to allow for regulation of such facilities. These ordinances should include requirements to develop and implement Best Management Practices/control measures to reduce pollutant discharges in stormwater and should authorize inspection and enforcement. The Program should also include a strategy to develop and implement inspection and enforcement, along with SOPs for inspection and escalation of enforcement.

Water Quality Monitoring Program – EPA has the following comments to the City's response and the City's 2009 Annual Report:

City's Response:

1. Page 23 - The Sampling Worksheet for dry/wet and screening sampling has been modified to show appropriated weather conditions as noted in Exhibit R. However, Exhibit R was not attached in City's response. Please send copy of a Sampling Worksheet for one sample event from Exhibit R to EPA for review.
2. Page 23- EPA has no issues with the HNO3 preservative used for metals analysis as noted in the Chain of Custody form. However, the Sampling Worksheet (page 25) still listed NA2S2O3 incorrectly as the preservative for metals analysis.
3. Page 23 - Bacteriological samples have a maximum holding time of six (6) hours between sample collection and analysis. Lab results for fecal coilform contained in Figure XII.B (page 26) indicate a holding time over twelve (12) hours, which exceeds the allowed time for the sample to be considered valid.

2009 Annual Report:

1. Page 14-1 - Dry and wet weather sampling were to be conducted quarterly for the period covering October 1, 2009, to September 30, 2010. The in-stream sampling log, Table 14-1, lists sampling dates for only three (3) quarters (second to fourth quarters). No records of first quarter sampling during the period from October10, 2009, to December 31, 2009, were listed in Table 14-1.
2. Page 14-1 - No wet or dry weather sampling was conducted in the second quarter of 2010 at sampling location SC1 as result of a transformer fluid spill in the area. Were there any other qualifying rain events during this quarter (January 2009 – March 2009) where re-sample was possible?
3. Table14-1 - No explanation was provided in the annual report as to why no wet weather sampling was conducted for all five (5) sampling locations in the third quarter. In addition, no dry weather sampling was conducted in the second quarter at sampling location V1C1.
4. Page 14-8 - Screening site sampling was not collected at sampling location IRCR14 because access to the site was not possible. Considering this is the only sampling location for the Cahaba River, the City needs to find a more accessible sampling location for the next sampling period. Also, the City needs to reassess whether screening sites IRVIC6 and BNFMC5 are valid sampling locations since the creeks were dry when attempts were made to collect these samples in 2010.
5. Page 14- 8 - One of the goals of the screening site sampling was to determine the presence of illicit discharges from industrial and high risk sources and to pinpoint the various pollutants entering the MS4 from these sources. The annual report has no discussion of the sampling data collected, evaluation of water quality in the seven (7) water bodies or assessment of any illicit discharges found. The annual report stated that the sampling results for the twenty-five (25) screening sites are presented in Appendix M. However, Appendix M was not attached to the annual report submitted to EPA.
6. Page 2-6 - EPA concurs with the City's program evaluation that the existing water monitoring program would not adequately produce enough data points to properly characterize any trends and determine effectiveness of the MS4 program in a statistically meaningful way. EPA and ADEM will assist the City in modifying the next MS4 permit to accomplish these objectives.

Please provide EPA with a copy of the City's 2010 Annual Report. In addition, EPA may seek to review the Annual Reports the City submits to the Alabama Department of Environmental Management under its MS4 Permit to confirm that there is continuing progress in improving the MS4 Program.

Again, thank you and the City for the information provided. Please contact Ms. Susan Pope at (404) 562-9770, should you have further concerns or wish to discuss the City's MS4 Program.

Sincerely,

Christopher L. Plymale, Chief
Stormwater and Residuals Enforcement Section
Clean Water Enforcement Branch

cc: Edwin Revell
City of Birmingham

Brian Ruggs
Malcom Pirnie

Brandy M Lee
Lee Law Firm LLC

Alabama Department of Environmental
Management

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

JUL - 2 2014

Mr. Thomas H. Miller
Department of Planning, Engineering, and Permits
City of Birmingham
710 North 20th Street
Birmingham, Alabama 35203

Dear Mr. Miller:

I am writing to personally thank you for taking the time from your busy schedule on Wednesday, June 11, 2014, to discuss the City of Birmingham's stormwater management program. We sincerely appreciate the opportunity to see the outstanding work that you and your staff have done, and continue to do.

The United States Environmental Protection Agency is committed to protecting and restoring our nation's watersheds. Your work is essential to achieving progress towards our combined goals of flood protection, water quality benefits, as well as improvements in the health and well-being of our communities.

We specifically want to express our appreciation to you and the City of Birmingham for your excellent leadership as you strive towards a robust MS4 program in support of the Clean Water Act. We also look forward to working closely with you as you develop and implement a watershed plan for the Village Creek Watershed. If there is any way we may be of assistance, please let us know. Feel free to contact me at 404-562-9234 or my staff, Ms. Amy Newbold at 404-562-9482, or for specific issues related to the MS4 permit, please contact Mr. Mike Mitchell at 404-562-9303.

Sincerely

James D. Giattina
Director
Water Protection Division