APPENDIX A

Midfield Storm Water Program Documents

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July 21, 2017

Certified Mail # 91 7108 2133 3936 7155 3702

Honorable Gary Richardson
Mayor, City of Midfield
725 Bessemer Super Highway
Midfield, Alabama 35228

RE: Municipal Separate Storm Sewer System (MS4) Individual Phase I Permit
NPDES Number ALS000030
City of Midfield MS4
Jefferson County (073)

Dear Mayor Richardson:

The Department has made a final determination to issue NPDES Permit No. ALS000030 to the City of Midfield for discharges from its MS4. The NPDES Permit Number ALS000030 will be effective August 1, 2017 and expire on July 31, 2022.

The Department notified the public of its tentative determination to issue NPDES Permit No. ALS000030 on June 7, 2017. Interested persons were provided the opportunity to submit comments on the Department's tentative decision through July 7, 2017. No comments were received regarding this permit during the public comment period.

The City of Midfield 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

cc: Ms. Kacy Sable /Environmental Protection Agency

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 MIDFIELD
AREA OF COVERAGE:	CORPORATE BOUNDARIES OF THE CITY OF MIDFIELD
PERMIT NUMBER:	ALS000030
RECEIVING WATERS:	WATERBODIES WITHIN THE CORPORATE BOUNDARIES OF CITY OF MIDFIELD

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:	JULY 21, 2017
EFFECTIVE DATE:	AUGUST 1, 2017
EXPIRATION DATE:	JULY 31, 2022

Glenda L. Dean

Alabama Department of Environmental Management

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PART I Applicability

A. Permit Area

This permit applies to the corporate boundaries of the City of Midfield 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. **Storm Water Collection System Operations**

    a. Structural Controls

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

        ii. For Permittee owned/maintained structural controls, the Permittee shall include in the SWMPP and implement the following:

            1. Maintain a map of the structural controls;

2. Inspect existing and newly constructed structural controls on a semi-annual basis, at a minimum;
3. Develop a standard operating procedure (SOP) or inspection checklist for structural control inspection and maintenance procedures;
4. Stabilization and re-vegetation of eroded areas as needed; and
5. Floatables, litter, sediment and debris, in structural controls, shall be removed as needed.

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

iv. The Permittee shall report each year in the annual report the following structural control information:

1. The number of inspections performed on structural controls, to include follow-up inspections. The inspection documentation (i.e. checklist) shall be made available upon request;
2. A summarization of the maintenance activities performed on structural controls;
3. The estimated amount of floatable, litter, sediment and debris that was removed, if applicable;
4. Copies of any contractual agreements for maintenance activities if not performed by the Permittee, if requested by the Department. The contractual agreement should specify maintenance activities performed and schedule; and
5. Updated structural controls map of Permittee-owned structural controls added during the preceding year with geographic coordinates.

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

a. The Permittee must further develop and implement a public education and outreach program to inform the community about the impacts from storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff to the MEP. The Permittee shall continuously implement this program in the areas served by the MS4.

b. The Permittee shall include within the SWMPP the methods for how it will:

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

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

i. General Public
   a. General impacts litter has on water bodies, how trash is delivered to streams via the MS4 and ways to reduce the litter;
   b. General impacts of storm water flows into surface water from impervious surface; and
   c. Source control BMPs in areas of pet waste, vehicle maintenance, landscaping and rain water reuse.
   d. Impacts of illicit discharges and how to report them.

ii. General Public and Businesses to include Home-Based and Mobile Businesses
   a. BMPs for use and storage of automotive chemicals, hazardous cleaning supplies, carwash soaps and other hazardous materials;
   b. Impacts of illicit discharges and how to report them.

iii. Homeowners, Landscapers, Property Managers and City Personnel
   a. Landscape techniques that protect water quality;
   b. BMPs for use and storage of pesticides, herbicides and fertilizers;
   c. BMPs for carpet cleaning and auto repair and maintenance; and
   d. Storm water pond maintenance.

iv. Engineers, City Personnel, Land Use Planners, Contractors and Developers
   a. Impacts of increased storm water flows into receiving water bodies;
   b. Technical standards for construction site sediment and erosion control;
   c. Storm water treatment and flow control BMPs; and
   d. Run-off reduction techniques and low impact development (LID)/green infrastructure (GI) practices that may include, but not limited to, site design, pervious pavement, alternative parking lot design, retention of forests and mature trees to assist in storm water treatment and flow control BMPS.

6. Evaluate the effectiveness of the public education and public involvement program; and
7. Organize and participate in activities that target the removal of litter, floatables, and debris from area waterways. The minimum number and the waterways these activities will target will be addressed in the SWMPP.

c. The Permittee shall report each year in the annual report the following information:

1) A description of the activities used to involve groups and/or individuals in the development and implementation of the SWMPP;
2) A description of the individuals and groups targeted and how many groups and/or individuals participated. If exact participation is not readily quantifiable, an estimation will be sufficient;
3) A description of the communication mechanisms or advertisements used to inform the public and the number of applications that were distributed (i.e. number of printed brochures, copies of newspapers, workshops, public service announcements, etc);
4) Results of the evaluation as required in Part II.B.2.b.6.; and
5) A list of the activities required in Part II.B.2.b.7 and the estimated amount of litter, floatables and debris removed during each activity.

d. The current SWMPP and latest annual report should be posted on the Permittee's website.

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

a. The Permittee shall implement an ongoing program to detect and eliminate illicit discharges into the MS4, to the maximum extent practicable. The program shall include, at a minimum, the following:

1) The development and annual update of an MS4 map. An initial map shall be provided in the SWMPP with updates provided each year in the annual report. The map shall include, at a minimum:

a. The latitude/longitude of all known major outfalls;
b. The names of all waters of the State within the MS4 area that receive discharges from these major outfalls; and,

2) To the extent allowable under State law, an ordinance or other regulatory mechanism that prohibits non-storm water discharges to the MS4. The ordinance or other regulatory mechanism shall:

a. Include escalating enforcement procedures and actions;
b. Require the removal of illicit discharges and the immediate cessation of improper disposal practices upon identification of responsible parties. Where the removal of illicit discharge within ten (10) working days is not possible, the ordinance shall require the operator of the illicit discharge to take all reasonable and prudent measures to minimize the discharge of pollutants to the MS4; and
c. Provide for the review of the IDDE ordinance and update as necessary.

3) A dry weather screening program designed to detect and address non-storm water discharges to the MS4. This program must address, at a minimum, dry weather screening of twenty (20) percent of the major outfalls at least once per year with all (100 percent) major outfalls screened at least once per five years. Also, priority areas, as described by the Permittee in the SWMPP, will be dry weather screened on a more frequent schedule as outlined in the SWMPP. If any flow, from an unidentified source, is observed during the dry weather screening of an outfall, then the Permittee shall follow the sampling protocol as outlined in the SWMPP and developed in accordance with EPA's guidance manual, *Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments*, Center for Watershed Protection, October, 2004.

4) Procedures for tracing the source of a suspect illicit discharge as outlined in the SWMPP. At a minimum, these procedures will be followed to investigate portions of the MS4 that, based on the results of the field screening or other appropriate information, indicate a reasonable potential of containing illicit discharges or other sources of non-storm water.

5) Procedures for eliminating an illicit discharge as outlined in the SWMPP;

6) Procedures to notify ADEM of a suspect illicit discharge entering the Permittee's MS4 from an adjacent MS4 as outlined in the SWMPP;

7) A mechanism for the public to report illicit discharges discovered within the Permittee's MS4 and procedures for appropriate investigation of such reports;

8) A training program for appropriate personnel on identification, reporting, and corrective action of illicit discharges; and

9) The Permittee shall post on its website the ordinance or other regulatory mechanism as required by Part II.B.3.a.2 of this Permit.

b. The Permittee shall report each year in the annual report the following information:

1) List of outfalls observed during the dry weather screening of the current year and a list of the outfalls to be dry weather screened during the upcoming year;
2) Updated MS4 map(s), if necessary;
3) Copies of the IDDE ordinance or other regulatory mechanism or provide a hyperlink for the ordinance or regulatory mechanism location on the Permittee's website; and,
4) The number of illicit discharges investigated, any associated sampling results, and the summary of corrective actions taken to include dates and timeframe of response.

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

a. The Permittee shall further develop/revise, implement and enforce an ongoing program to reduce, to the maximum extent practicable, the pollutants in any storm water runoff to the MS4 from qualifying construction sites. The program shall include the following, at a minimum:

1) Procedures to require all applicable construction sites to obtain coverage under ADEM NPDES General Permit ALR10000 or other applicable NPDES permits;
2) To the extent allowed under State law, an ordinance or other regulatory mechanism to require effective erosion and sediment controls on qualifying construction sites, as well as sanctions to ensure compliance;
3) Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality;
4) Procedures for site plan review to ensure the selection of effective erosion and sediment controls are consistent with the Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas published by the Alabama Soil and Water Conservation Committee (hereinafter the "Alabama Handbook") and are appropriate for site conditions. Site plan review may be prioritized based on criteria outlined in the Permittee's SWMPP and may include, but is not limited to, size and location within priority watersheds. The plan review process will also consider potential water quality impacts;
5) A mechanism for the public to report complaints regarding pollution discharges from construction sites;
6) Inspection of sites to verify use and proper maintenance of appropriate BMPs. Inspections of construction sites shall be performed in accordance with the frequency specified in the table below:

Site	Inspection Frequency
Priority Constructions Sites (Defined in Part V.Y.)	At a minimum, inspections must occur monthly
Other sites determined by the Permittee or Permitting Authority to be a significant threat to water quality*	
All construction sites not meeting the criteria specified above.	At a minimum, inspections must occur every two months

*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 SWPPP with actual locations described in the annual report;

Waterbody	Frequency
Valley Creek	Hourly Sonde Grab Sample (Semi-Annually)

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. Water quality data shall be obtained by a water quality probe (i.e sonde) at Valley Creek with a minimum frequency of hourly and shall consist of the following:

    a. Temperature;
    b. pH/ORP;
    c. Turbidity (NTU);
    d. Conductivity;
    e. Dissolved Oxygen (mg/l)
    f. Water level

2. Grab samples shall be collected on Valley 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. Chemical Oxygen Demand (COD) (mg/l);
    m. Hardness as $CaCO_3$ (mg/l);
    n. Nitrate plus Nitrite Nitrogen (NO_3+NO_2-N) (mg/l);
    o. Oil and Grease (mg/l);
    p. Total Dissolved Solids (TDS) (mg/l);
    q. Total Kjeldahl Nitrogen (TKN) (mg/l); and

3. The Permittee must include in the instream monitoring program any additional parameters attributed with the latest final §303(d) list or otherwise designated by the Department as impaired or are included in an EPA-approved or EPA-established TMDL.

C. Sample Type, Collection and Analysis

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

PART IV Annual Reporting Requirements

1. The Permittee shall submit to the Department an annual report (1 hardcopy and 1 electronic copy) no later than January 31 of each year. The annual report shall cover the previous fiscal year beginning October 1 through September 30.

2. On or after December 21, 2020, all annual reports shall be submitted to the Department electronically in a prescribed manner acceptable to the Department.

3. The Permittee shall sign and certify the annual report in accordance with Part V.K.

4. The annual report shall include the following information, at a minimum, and in addition to those requirements referenced in Part II.B and Part III:

a. A list of contacts and responsible parties (e.g.: agency, name, phone number, address, & email address) who had input to and are responsible for the preparation of the annual report.

b. An overall evaluation of the storm water management program developments and progress for the following:

1) Major findings such as water quality improvements or degradation;
2) Major accomplishments;
3) Overall program strengths/weaknesses;
4) Future direction of the program;
5) The Permittee(s) will make an overall determination of the effectiveness of the SWMPP taking into account water quality/watershed improvements; and
6) Required actions that were not performed, and reasons why the actions were not accomplished.

c. The annual report will include a narrative report of all program elements referenced in Part II.B of this permit. The activities concerning a program element shall be discussed as follows:

1) Program element activities completed and in progress;
2) General discussion of element. Explanation for all element activities that have not been fully implemented or 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. *Termination of Coverage for a Single Permittee*

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

W. *Modification of Storm Water Management Program*

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

X. *Changes in Monitoring Outfalls*

This permit is issued on a system-wide basis in accordance with CWA §402(p)(3)(i) and authorizes discharges from all portions of the MS4. Since all outfalls are authorized, changes in monitoring outfalls, other than those with specific numeric effluent limitations, shall be considered minor modifications to the permit and will be made in accordance with the procedures at 40 CFR 122.63.

Y. *Definitions*

1. "Alabama Handbook" means the September 2014 edition of the Alabama Handbook for Erosion Control, Sediment Control, And Stormwater Management on Construction Sites and Urban Areas, Alabama Soil and Water Conservation Committee (ASWCC) published at the time permit is effective.

2. "Arithmetic Mean" means the summation of the individual values of any set values divided by the number of individual values.

3. "AWPCA" means Code of Alabama 1975, Title 22, the Alabama Water Pollution Control Act, as amended.

4. "Best Management Practices" (BMPs) means activities, prohibitions of practices, maintenance procedures, and other management practices implemented to prevent or reduce the discharge of pollutants to waters of the State. BMPs also include treatment systems, operating procedures, and practices to control facility runoff, spillage or leaks, sludge or water disposal, or drainage from raw material storage.

5. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

6. "Control Measure" as used in this permit, refers to any Best Management Practice or other method used to prevent or reduce the discharge of pollutants to waters of the State.

7. "CWA" or "The Act" means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub.L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483 and Pub. L. 97-117, 33 U.S.C. 1251 et.seq.

8. "Department" means the Alabama Department of Environmental Management or an authorized representative.

9. "Discharge", when used without a qualifier, refers to "discharge of a pollutant" as defined as ADEM Administrative Code 335-6-6-.02(m).

10. "Flood Management Project" means a project that will alter, modify or change the base flood elevation of a 1% annual chance flood event.

11. "Flow-weighted composite sample" means a composite sample consisting of a mixture of aliquots collected at a constant time interval, where the volume of each aliquot is proportional to the flow rate of the discharge at the time of sampling.

12. "Green Infrastructure" refers to systems and practices that use or mimic natural processes to infiltrate, 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.

CITY OF MIDFIELD
STORM WATER MANAGEMENT

EROSION AND SEDIMENTATION CONTROL ORDINANCE

~~#~~ 323

EROSION AND SEDIMENTATION CONTROL ORDINANCE

RECITALS

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STORM WATER MANAGEMENT
EROSION AND SEDIMENTATION CONTROL
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RECITALS

WHEREAS, the sedimentation of streams, lakes and other waters of this state constitutes a major pollution problem; and

WHEREAS, sedimentation occurs from the erosion or depositing of soil and other materials into the waters, and control of erosion and sedimentation is deemed vital to the public interest and is necessary to the public health and welfare, and expenditures of funds for an erosion and sedimentation control program shall be deemed to benefit the public health and welfare; and

WHEREAS, the purpose of this ordinance is to provide for the creation, administration, control and enforcement of a program to reduce erosion and sedimentation problems pursuant to the National Pollutant Discharge Elimination System ("NPDES") permit ALS000001 from Alabama Department of Environmental Management ("ADEM") for storm water discharges from the Municipal Separate Storm Sewer System of the City of Midfield ("MS4"), which will permit the development in the City of Midfield, ("City") to continue with the least detrimental effects from pollution by sedimentation; and

WHEREAS, ADEM, pursuant to the authority delegated to it under the Clean Water Act, 33 U.S.C. Section 1251, *et seq.,* has required the City to obtain an NPDES permit for storm water discharges from the MS4, effective March 1, 1995 and, therefore, the City is subject to the federal storm water laws and regulations contained in 33 U.S.C. ¶ 1342 (P) and 40 C.F.R. ¶ 122.26, and is required to adopt a local erosion control ordinance. Act No. 95-775 of the Alabama State Legislature (Code of Alabama 1975, § 11-89C 1-14) and other provisions of the Code of Alabama 1975 grant the authority to adopt such ordinances to the governing bodies of all Class 1 municipalities within the State of Alabama, to the governing bodies of counties in which Class 1 municipalities are located and to the governing bodies of all other municipalities located within such counties, and where any such other municipality is also located partially within an adjoining county, then the governing body of such adjoining county and which governing bodies are specifically designated in 40 C.F.R. part 122, Appendices F, G, H or I or by ADEM pursuant to the authority delegated to it under the Clean Water Act, 33 U.S.C. Section 1251, et *seq.;* and

WHEREAS, it is the purpose of this ordinance to protect and maintain the environment of the City and the short-term and long-term public health, safety and general welfare of the citizens of the City by controlling discharges of pollutants to the City's MS4, thereby, maintaining and improving the quality of the community waters into which the storm water outfalls flow, including, without limitation, the lakes, streams, ponds, wetlands, sinkholes and groundwater of the City; and

WHEREAS, this ordinance controls the discharge of certain non-storm water to the MS4 from land on which land-disturbing activities are conducted, to the maximum extent practicable, and provides enforcement procedures and penalties to ensure compliance with such controls; and

WHEREAS, it is further the purpose of this ordinance to enable the City to comply with the NPDES permit and applicable regulations (4O C.F.R. ¶ 122.26) for storm water discharges; and

WHEREAS, the objectives of this ordinance are to:

(a) control (i) the contribution of pollutants to the MS4 by storm water discharges associated with land-disturbing activities and (ii) the quality of storm water discharged to the MS4 from sites of land-disturbing activity;

(b) prohibit illicit discharges to the MS4;

(c) control the discharge to the MS4 of any spills, dumping or disposal of materials other than storm water from sites of land-disturbing activity; and

(d) carry out all inspections, surveillance and monitoring procedures necessary to determine compliance and noncompliance with land-disturbing activity permits (singular, "Permit" and plural, "Permits").

WHEREAS, said Act 95-775 authorizes certain municipalities, which include the City, to form a public corporation to administer and oversee the requirements of the NPDES permit ALS000001 on behalf of each municipality; and

WHEREAS, such a public corporation was formed on March 13, 1997, under the name of Storm Water Management Authority, Inc. ("Authority");

WHEREAS, Jefferson County, Alabama and twenty-three municipalities within Jefferson County, including the City, are members of the Authority; and

WHEREAS, the members of the Authority decided that each municipality shall have the responsibility for the administration and review of construction best management practices plans ("BMP Plan"), and inspection of sites within its municipal limits on which land-disturbing activities are conducted.

NOW, THEREFORE, be it ordained by the City Council of the City of Midfield, ("City Council") as follows:

Article 1
DEFINITIONS

Section 1.01 Definitions.

For the purposes of this ordinance, the following words and terms shall have the meaning assigned to them in this section.

Accidental Discharge - a discharge prohibited by this Article into the MS4 or community water which occurs by chance and without planning or consideration prior to occurrence.

Adverse Impact - any deleterious effect on waters or wetlands, including their quality, quantity, surface area, species composition, aesthetics or usefulness for human or natural uses which are or may potentially be harmful or injurious to human health, welfare, safety or property or to biological productivity, diversity or stability, or which would unreasonably interfere with the enjoyment of life or property.

Agriculture - activities undertaken on land for the production of plants, crops, and animals which are useful to man.

Alabama Department of Environmental Management (herein abbreviated as "ADEM") - the State of Alabama regulatory agency, created under Code of Alabama 1975, § 22-22A-1, et seq., responsible for administering and enforcing the storm water laws of the United States of America and the State of Alabama.

Applicant - any person, firm, corporation or governmental agency who executes the necessary forms to procure approval of Best Management Practices Plans from the Official.

Authority - Storm Water Management Authority, Inc.

Best Management Practices (herein abbreviated as "BMP") - activities, prohibitions of practices, maintenance procedures and management practices designed to prevent or reduce the pollution of waters to the MS4. Best Management Practices also include treatment requirements, operating procedures and practices to control facility site runoff, spillage or leaks, sludge or waste disposal or drainage from raw material storage and construction sites.

Best Management Practices Plan (herein abbreviated as "BMP Plan") - a set of drawings and/or other documents submitted by a person as a prerequisite to obtaining a Permit, which contain all of the information and specifications pertaining to BMP.

Clean Water Act (herein abbreviated as "CWA") - the federal act (33 U.S.C. § 1251 through § 1387) which was formerly referred to as the Federal Water Pollution Control Act and Federal Water Pollution Control Act Amendments of 1972, Public Law 92-500, as amended by Public Law 95-217, Public Law 95-576, Public Law 6-483 and Public Law 97-117, 33 U.S.C.§ 1251-1387.

Clearing - the removal of trees and brush from the land, not including the ordinary mowing of grass or the maintenance of previously cleared areas.

Community Waters - any or all rivers, streams, creeks, branches, lakes, reservoirs, ponds, drainage systems, springs, wetlands, wells and other bodies of natural or artificial surface or subsurface water into which the MS4 outfalls flow.

Contour - a line of equal elevation above a specified datum, usually mean sea level.

Contour Line - a line joining points having or representing equal elevations.

Discharge - the passing of water or other liquid through an opening or along a pipe, conduit or channel; the rate of flow of water, silt, or other mobile substance which emerges from a pipe, conduit or channel, usually expressed as cubic feet per second, gallons per minute or million gallons per day.

Drainage - the removal of surface water from a given area either by gravity or by pumping; commonly applied to surface water and groundwater.

Drainage Area - that area contributing runoff to a single point measured in a horizontal plane, which is enclosed by a ridge line; the area of a drainage basin or watershed, expressed in acres, square miles or other unit of area.

Engineer - a person currently licensed by the Alabama State Board of Registration for Professional Engineers and Land Surveyors to provide engineering services.

Erosion - wearing away of lands by running water.

Erosion Control - the application of measures to reduce erosion of land surfaces.

Grading - any act by which soil is cleared, stripped, stockpiled, excavated, scarified or filled, or any combination thereof.

Illicit Connection - any man-made conveyance connecting an illicit discharge directly to the MS4.

Illicit Discharge - any discharge that is not composed entirely of storm water, except discharges pursuant to a NPDES permit (other than NPDES Permit ALS000001) and discharges which are specifically excepted from this ordinance.

Minor Extension - an addition to an existing utility pipeline or other utility line in which the land disturbed consists of fewer than 7,500 linear feet.

Municipal Separate Storm Sewer (herein abbreviated as "MS3") - a conveyance or conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels and storm drains), owned or operated by a city, town or county or other public body (created by, or pursuant to, State law) having jurisdiction over storm water.

Municipal Separate Storm Sewer System (herein abbreviated as "MS4") - a system of municipal separate storm sewers, as defined hereinbefore.

NPDES - National Pollutant Discharge Elimination System.

Outfall - a point source (meaning 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, but not including return flows from irrigated agriculture or agricultural water runoff) at the point of a discharge to waters of the United States of America.

Permit - any permit issued pursuant to this ordinance.

Permittee - a person, party, government entity and all others who receive a permit to discharge under the NPDES.

Pollutant - includes, but is not limited to, the pollutants specified in Code of Alabama 1975, § 22-22-1(b)(3) and any other effluent characteristics specified in a Permit.

Pollutant Loading - the amount of a pollutant entering the MS4.

Qualified Credentialed Professional - a Certified Professional In Erosion And Sediment Control ("CPESC") as determined by the Soil and Water Conservation Society ("SWCS") or the

International Erosion Control Association ("IECA"). Other registered or certified professionals such as a professional engineer or a landscape architect, registered land surveyor, registered architect, registered geologist, registered forester, Registered Environmental Manager as determined by the National Registry of Environmental Professionals ("NREP"), Certified Professional Soil Scientist ("CPSS") as determined by the American Registry of Certified Professionals in Agronomy, Crops and Soils ("ARCPACS"), who can document the necessary education, training, and professional certification, registration, or credentials acceptable to the Official and can demonstrate proven experience in the field of erosion and sediment control shall be considered a qualified credentialed professional. The qualified credentialed professional must be in good standing with the authority granting the registration. The qualified credentialed professional must be familiar, and have expertise, with current industry standards for erosion and sediment controls and must be able to inspect and assure that nonstructural BMPs or other pollution control devices (silt fences, erosion control fabric, rock check devices, etc.) and erosion control efforts, such as grading, mulching, seeding and growth management, or management strategies have been properly implemented and regularly maintained according to good engineering practices and the requirements of this permit. A professional engineer ("PE") registered in the state of Alabama must certify the design and construction of structural practices such as spill prevention control and counter measures ("SPCC") plan containment structures, dam construction, etc.

Sediment - solid material settled from suspension in a liquid that has been transported and deposited from its site of origin by air, water, ice or gravity as a product of erosion and has come to rest on the earth's surface either above or below a water surface, usually, inorganic or organic particles originating from weathering, chemical precipitation, or biological activity.

Silviculture - the care and cultivation of forest trees, including site preparation, planting, pruning, thinning and harvesting.

Site - any tract, lot or parcel of land or combination of contiguous tracts, lots or parcels of land which are in one ownership, and any combination of tracts, lots and parcels which are contiguous, are owned by two or more parties and are to be developed as a unit, subdivision or project.

Stabilization - the prevention of soil movement by any of various vegetative and/or structural means.

Storm Water - the excess water running off from the surface of a drainage area during and immediately after a period of rain. It is that portion of the rainfall and resulting surface flow that is in excess of that which can be absorbed through the infiltration capacity of the surface of the basin.

Storm Water Management - the incorporation of a variety of activities and equipment into a plan to address concerns associated with Storm Water for the purpose of preventing pollution, improving water quality, keeping pollutants out of runoff, and the implementation of Best Management Practices.

Storm Water Management Program (herein referred to as "the Management Program" or "the Program") - a program which covers the duration of the permit. It shall include a comprehensive planning process which involves public participation and, where necessary, intergovernmental coordination, to reduce the discharge of pollutants, to the maximum

extent practicable, using management practices control techniques and system design and engineering methods and such other provisions which are appropriate.

Storm Water Permit - a permit which grants permission to the holder to discharge storm water to the MS4 under the NPDES.

Stream - a course of running water usually flowing in a particular direction in a definite channel and discharging into some other course of running water or body of water.

Structural Controls - measures incorporated into existing Storm Water drainage systems or newly constructed systems to prevent or minimize the discharge of pollutants for the purpose of maintaining and/or improving water quantity and quality management; quantitative control by a system of vegetative and structural measures that control the increased volume and rate of surface runoff caused by man-made changes to the land; qualitative control by a system of vegetative, structural and other measures that reduce or eliminate pollutants that might otherwise be carried by surface runoff.

Turbidity - a condition in water or wastewater caused by the presence of suspended matter, resulting in the scattering and absorption of light rays. A measure of fine suspended matter in liquids.

Utility - a business or service which is engaged in regularly supplying the public with some commodity or service which is of public consequence and need, such as electricity, gas, water, telephone service and telegraph service.

Variance - the modification of the minimum storm water management requirements in situations in which exceptional circumstances, applicable to the site with respect to which the variance is requested, exist so that strict adherence to the provisions of this ordinance would result in unnecessary hardship and the granting of such modification would not result in a condition contrary to the intent of this ordinance.

Article 2
ADMINISTRATION

Section 2.01

(a) The municipal engineer for the City, the municipal official or employee who is a qualified credentialed professional, such other municipal official or employee who has had sufficient experience dealing with erosion and sedimentation control to enable him to enforce the provisions of this ordinance, or the Administrator of the Authority and who is designated by the City Council ("Official") (whenever the word "Official" is used in this ordinance, it shall include the authorized agent of the Official) shall be the person responsible, on behalf of the City, to enforce the provisions of this ordinance as a part of the Authority's storm water management program. The Official shall be designated in a resolution adopted by the City Council.

(b) When the Official determines that the City needs assistance to enforce the provisions of this ordinance, or that assistance would be helpful in the enforcement of this ordinance, the Official, or the Mayor of the City, if the City Council has not appointed an Official, may request the assistance of the Authority to enforce the provision of this ordinance on behalf of the City. Such request shall be made only after the adoption of a resolution by the City Council authorizing such request, unless the proposed request involves a matter which the Official, or the Mayor, if an Official has not been appointed by the City Council, considers to be an emergency, in which case the Official or the Mayor, if the City Council has not appointed an Official, may make the request without the approval of the City Council. Notwithstanding the foregoing, the City Council may, by the adoption of a resolution, authorize the Official to request the assistance of the Authority to enforce the provisions of this ordinance when the Official determines that the City needs such assistance.

Article 3
APPLICATION AND FEES

Section 3.01 Application.

(a) Before the commencement of any land-disturbing activity that is not exempted from obtaining a Permit under this ordinance, the owner of the land on which such activity shall be conducted, or his duly authorized agent, must file with the Official an application for the approval of the owner's BMP Plan. The Official must either approve or disapprove the BMP Plan within fourteen (14) days of the day it is filed with the Official. If the BMP Plan is disapproved, the Official must inform the Applicant, in writing, of the reasons for its disapproval. If the Applicant, on one or more occasions, revises the BMP Plan or submits to the Official additional documents or information in connection with the BMP Plan, the Official must make a written response to the Applicant with respect to whether such revised BMP Plan and/or additional documents and information have been approved or disapproved by the Official. All such additional responses must be made by the Official to the Applicant within fourteen (14) days of the day such revised BMP Plan or additional documents or information are submitted to the Official. The land-disturbing activity may not be commenced prior to the issuance of the Permit by the Official. The issuance of the Permit shall not excuse the owner from the need to obtain other required state and local permits or licenses.

(b) The minimum standards for the issuance of a Permit must meet the requirements of this ordinance.

(c) Facilities that are covered under an ADEM NPDES permit for storm water discharge associated with construction activities ("ADEM NPDES permit") are exempt from the permitting requirements of this ordinance. However, prior to the commencement of any land-disturbing activity, the owner or developer of facilities that are covered under an ADEM NPDES permit shall submit to the Official copies of the ADEM NPDES permit authorization issued by ADEM, any relevant notice of intent and a copy of the BMP Plan. The holders of an ADEM NPDES permit shall be subject to the relevant portions of Section 5.01(ii) and Articles 6 and 7.

Section 3.02 Permit Application Fee.

Each application for the issuance of a Permit shall be accompanied by a non-refundable fee of One Hundred Dollars ($100.00), for individual single family residences and Four Hundred Dollars ($400.00), for all other types of land disturbing activities, to help defray the City's cost of processing and reviewing the application and the inspections associated with the application. The applicant must submit three sets of its BMP Plan with its application and fee to the Official.

Section 3.03 Data Required on the Application for a Permit.

(a) All applications for a Permit must include the following information:

(1) name of Applicant;

(2) telephone number of applicant, telecopier number, if any, of applicant, and e-mail address, if any, of Applicant;

(3) address where Applicant, or other person who can furnish information about the land-disturbing activity (such other person must be a resident of Jefferson County, Shelby County or St. Clair County, Alabama), ("Contact Person") can be reached;

(4) name, address, telephone number, telecopier number, if any, and e-mail address, if any, of the owner of the project, the owner of the property on which the project is to be located and the ground lessee of the property, if any, on which the land-disturbing activity is to be conducted if the applicant is not the owner of the project and such property;

(5) legal description and address, if any, of the property upon which the land-disturbing activity is to be conducted;

(6) names, addresses, telephone numbers, telecopier numbers, if any, and e-mail addresses, if any, of all contractors and subcontractors who shall implement any BMP Plan; provided, however, that if the contractor and the subcontractors have not been selected when the application for a permit is filed, the Applicant shall furnish such information to the Official within five (5) days of the day or days on which the contractor and/or subcontractors are selected;

(7) name, address, telephone number, telecopier number, if any, and e-mail address, if any, of the qualified credentialed professional who has approved the BMP Plan application (this is required for all land-disturbing activities except those related to the construction of individual single-family residences);

(8) each application for a Permit must be accompanied by a map or a plot of the land on which the land-disturbing activity will be conducted and any other information that is required under the provisions of Article 5.

(b) The detail of the BMP Plan must be commensurate with the size of the project, severity of the site condition and potential for off-site damage, as provided in Article 5.

Section 3.04 Maintenance of Records.

Records of compliance with the provisions of the Permit shall be maintained in the office of the owner or the applicant, shall be available to the Contact Person and shall be made available at any time for review by the Official; provided, that if such records are maintained without the State of Alabama and, because of their size, cannot be transmitted to the Official by telecopier, such records must be delivered to the Official (at no expense to the City or the Official) within forty-eight (48) hours of the earliest of the receipt by the owner, applicant or Contact Person of a request by the Official for such records.

Section 3.05 Amended Application; Transfer of Permit.

(a) A Permit may be amended, without the payment of an additional fee, upon the filing with the Official of an amended or restated Permit application, containing all changes from the original application; provided, that the holder of the Permit shows to the reasonable satisfaction of the Official that there are no proposed changes which may affect the quantity and/or quality of storm water runoff. If an amended or restated application is filed with the Official with respect to land-disturbing activities for which a Permit has been issued, such existing Permit shall continue in effect, and the holder of the Permit may continue to operate under it unless and until an amended Permit is issued in response to the amended or restated application ("Amended Permit") at which time the original Permit shall expire and all land-disturbing activities must be conduced in accordance with the Amended Permit.

(b) A Permit may be transferred, without the payment of an additional fee, upon the filing with the Official of an application for transfer; provided, that the holder and proposed transferee of the Permit show to the reasonable satisfaction of the Official that, upon or following the transfer, there will be no proposed changes which may affect the quantity and/or quality of storm water runoff. If there is a request for the transfer of a Permit and there are to be one or more changes in the operation of the project which is the source of the land-disturbing activity which may affect the quantity and/or quality of storm water runoff, the new owner or operator of such project must apply to the City for a new Permit prior to his involvement with the operation of such project.

Section 3.06 Signatory Requirements.

(a) All applications and correspondence required by this ordinance to be submitted to the Official shall be signed as follows:

(1) If an application or correspondence is submitted by a corporation, it must be signed by the president of the corporation or by a vice-president of the corporation who is in charge of a principal business function of the corporation, or any other person who performs similar policy-making or decision-making functions for the corporation, or who has been authorized to sign such applications and/or correspondence by a resolution adopted by the board of directors of the corporation. Proof of the authority of the signatory shall be provided to the Official, upon his request.

(2) If an application or correspondence is submitted by a limited liability company, it must be signed by a manager or other person who serves the same or similar function as the president of a corporation.

(3) If an application or correspondence is submitted by a partnership, it must be signed by a general partner of the partnership.

(4) If an application or correspondence is submitted by a sole proprietorship, it must be signed by the proprietor.

(5) If an application or correspondence is submitted by a municipality, the State or the federal government or by any municipal, state or federal agency, it must be signed by either the chief executive officer or a principal executive officer of any such government or by either the chief executive officer, a principal executive officer or a senior executive officer having responsibility for the overall operations of a principal geographic unit of any such governmental agency.

(b) Any person signing any application or correspondence required by this ordinance shall make the following certification: "I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision and that I have personally examined, and I am familiar with, the information in this document and such attachments. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and civil penalty."

Article 4
EXCLUSION

Section 4.01

No person may conduct any land-disturbing activity without (i) having obtained a Permit from the Official or (ii) having provided the Official with a copy of an ADEM NPDES permit, any relevant notice of intent and a copy of the BMP Plan.

Section 4.02

Land-disturbing activities shall include any land change which may result in soil erosion from water or wind and the movement of sediment to the MS4, including, but not limited to, the clearing, dredging, grading, excavating, transporting and filling of land, except that the term shall not include the following:

(a) Any land change on property about which the owner of the property has submitted information to the Authority proving, to the satisfaction of the Authority, that such property does not drain to the MS4. Such information may be submitted to the Official, who shall promptly deliver it to the Authority, and the determination as to whether such property drains to the MS4 shall be made by the Authority.

(b) Agriculture.

(c) Silviculture.

(d) Such minor land-disturbing activities as home gardens, landscaping on individual residential lots (excluding landscaping performed by, or on behalf of, a developer or builder, who builds a house on any such lot), home repairs, home maintenance work, minor additions to houses, the construction, maintenance or repair of accessary structures and other related activities which result in minor soil erosion.

(e) Minor land-disturbing activities such as individual connections for utility services and sewer services for single or two-family residences, minor grading for driveways, yard areas and sidewalks, excluding any grading done by, or on behalf of, a developer or builder in connection with the construction of a house.

(f) Minor maintenance, minor repair, and the minor extension of any existing underground public utility lines, except sewer lines; provided, that the utility company which owns such lines has received approval of a general BMP Plan from the Authority for such maintenance, repair, and extension; and provided further, that any utility company making a minor extension in connection with which the land disturbed consists of more than 1,000 linear feet must give the Official written notice of such extension prior to the commencement of such minor extension.

(g) The construction, repair or rebuilding of railroad tracks.

(h) Minor subsurface exploratory excavations under the direction of soils engineers or engineering geologists.

(i) The opening of individual burial sites in property which has been approved for such use by all necessary governmental authorities.

(j) Digging of water wells or environmental monitoring wells.

The activities referred to in items (b) through (i) above may be undertaken without a Permit; however, the persons conducting these excluded activities shall remain responsible for otherwise conducting such activities in accordance with the provisions of this ordinance and any other applicable law, including the proper control of sedimentation and runoff to the MS4. This ordinance shall apply to such land-disturbing activities that drain to the MS4 if a storm water pollution problem is shown to be caused by such activity following monitoring procedures and complaints.

Article 5
BMP APPROVAL REQUIREMENTS

Section 5.01 General Requirements.

No land-disturbing activity shall be conducted within the City until either (i) a Permit shall have been issued by the Official allowing such activity pursuant to the provisions of this ordinance or (ii) an authorization issued by ADEM under the ADEM NPDES permit, any relevant notice of intent and a copy of the BMP Plan has been submitted to the Official. The ADEM NPDES permit, notices of intent and BMP Plans shall be kept on file by the Official and shall be on the job site, or other reasonable location, for inspection by the Official until the project has been completed and notice of termination of the relevant NPDES permit has been sent to ADEM. The ADEM NPDES permits shall be required in addition to any building permits or other local permits required for land-disturbing activities or other activities on the site. The following are BMP approval requirements:

(a) Persons conducting land-disturbing activities shall take all reasonable measures referred to, or provided for, in this ordinance to protect all public and private property from damage caused by such activities and to reduce storm water pollution to the maximum extent practicable.

(b) No land-disturbing activities subject to this ordinance shall be undertaken except in accordance with the following requirements:

(1) The person(s) proposing to conduct any land-disturbing activity or an agent, contractor or other representative of such person must contact the Official at least five (5) business days before commencement of the land-disturbing activity to advise the Official of the commencement of such land-disturbing activity, unless, for good cause shown, the Official permits such person, contractor, agent or other representative to contact him nearer to the date of the commencement of such land-disturbing activity.

(2) Other than land-clearing activities required to install the appropriate BMP in accordance with BMP Plans, any downslope erosion and sediment control measures, on-site stream channel protection and upslope diversion of drainage required by the BMP Plan shall be in place and functional before any clearing or earth-moving operations begin, and shall be constructed and maintained throughout the construction period. Temporary measures may be removed at the beginning of the workday, but shall be replaced at the end of the workday.

(3) The angle for graded slopes and fills shall be no greater than the angle, which can be retained by vegetative cover or other adequate erosion control devices or structures. Any slope or fill which has been graded shall, within fourteen (14) days of the completion of such grading or the completion of any phase of grading, be planted or otherwise provided with ground cover, materials, devices or structures sufficient to restrain erosion. The BMPs shall remain in place in accordance with the BMP Plan until the graded slope or fill is stabilized.

(4) Adequate protective measures shall be provided for the containment of hazardous substances and any other materials which may pollute the MS4, including petroleum products, lubricants and paint.

(5) All control measures shall be checked, and repaired as necessary, monthly in dry periods and within twenty-four (24) hours after any rainfall at the site of .75 inch within a twenty-four (24)-hour period. During prolonged rainfalls, daily checking and, if necessary, repairing shall be done. The Permittee shall maintain written records of such checks and repairs, which records shall be subject to the inspection of the Official at any reasonable time.

(6) The BMP Plan shall show the size of disturbed area and a schedule of the projected starting and completion dates of the land-disturbing activity.

(7) A site plan, accompanied by a written description of BMPs which are shown on the site plan, and a schedule of implementation during land-disturbing activities and construction shall be furnished to the Official prior to the commencement of any land-disturbing activities.

(8) A description of, and procedures for, proper storage, handling and disposal of construction materials stored on-site which could contribute to the pollutant loading to the MS4, shall be furnished to the Official prior to the commencement of any land-disturbing activities.

Section 5.02 Design and Performance Standards.

The following are required for all land-disturbing activities except those related to the construction of individual single-family residences.

All applications for a Permit must contain, or be accompanied by, the materials and information necessary to satisfy the requirements of Sections 5.01 and 5.02 and must be accompanied by a soil erosion and sediment control plan ("Control Plan"). The Control Plan shall be prepared by a Qualified Credentialed Professional and shall include the following:

(a) The Control Plan shall be accompanied by a map or plot of the property upon which land-disturbing activities are to be conducted, prepared by a registered land surveyor, showing the present contour lines of such property, and the present contour lines of at least the nearest twenty-five (25) feet of the properties immediately adjacent to such property and the existing grades and elevations of all streets which abut such property. Such map or plot shall show all existing drainage facilities and all natural drainage on such property and on such adjacent property.

(b) All proposed contours, the proposed temporary and permanent disposition of surface water and the proposed drainage structures; provided, however, the Control Plans for utility projects, except sewer projects, shall not be required to show the proposed contours.

(c) The proposed contours in the map or plot shall be depicted in contour intervals of two (2) or fewer feet; provided, however, the Control Plans for utility projects, except sewer projects, shall not be required to show the

proposed contours. All maps, plots and plans submitted shall be on a sheet of paper at least twenty-four (24) inches by thirty-six (36) inches and drawn to a scale of not less than one inch equals 100 feet. Contour intervals of more than two (2) feet and maps, plots or plans which are smaller than the required size may be approved by the Official, upon written request and for good cause shown.

(d) The Control Plan shall contain a description of the existing site conditions, a description of adjacent topographical features, the information necessary to determine the erosion qualities of the soil on the site, potential problem areas of soil and erosion and sedimentation, soil stabilization specifications, storm water management considerations, a projected time schedule for the commencement and completion of the land-disturbing activity, specifications for BMP Plan maintenance during the project and after the completion of the project, clearing and grading limits, and all other information needed to depict accurately the solutions to potential soil erosion and sedimentation problems to the MS4. The Control Plan shall include the series of BMPs and shall be reviewed by, and subject to the approval of, the Official prior to the issuance of the Permit.

(e) Where appropriate, in the opinion of the qualified credentialed professional who prepares the Control Plan, to the maximum extent practicable, the Control Plan shall include measures to reduce erosion and other adverse impact to MS4 drainage which would result from an increase in the volume of water and the rate of runoff of water during the conduct of land-disturbing activities.

(f) Whenever the Official determines that a Control Plan does not comply with this ordinance, he shall notify the applicant in writing of the ways in which the Control Plan does not comply with this ordinance.

(g) To the maximum extent practicable, sediment in runoff water must be minimized by using appropriate BMPs.

(h) Structural controls shall be designed and maintained as required to minimize erosion and pollution to the maximum extent practicable. All surface water flowing toward the construction area shall, to the maximum extent practicable, either be passed through the site in a protected channel or diverted by using berms, channels or sediment traps, as necessary. Erosion and sediment control measures shall be designed, according to the size and slope of the disturbed areas or drainage areas, to minimize erosion and to control sediment, to the maximum extent practicable. Discharges from sediment basins and traps must be conducted in a manner consistent with good engineering practices. Sediment-laden, or otherwise polluted, water discharged to MS4 must be addressed in a manner consistent with good engineering practices and the requirements of this ordinance.

(i) Control measures shall be maintained as an effective barrier to sedimentation and erosion in accordance with the provisions of this ordinance.

(j) There shall be no distinctly visible floating scum, oil or other matter contained in the storm water discharge. The storm water discharge to an MS4 must not cause an unnatural color (except dyes or other substances discharged to an MS4 for the purpose of environmental studies and which do not have a harmful effect on the bodies of water within the MS4) or odor in the community waters. The storm water discharge to the MS4 must result in no materials in concentrations sufficient to be hazardous or otherwise detrimental to humans, livestock, wildlife, plant life or fish and aquatic life in the community waters.

(k) When the land-disturbing activity is finished and stable vegetation or other permanent controls have been established on all remaining exposed soil, the owner of the land where the land-disturbing activity was conducted, or his authorized agent, shall notify the Official of these facts, and request a final inspection. The Official shall then inspect the site within five (5) working days after receipt of the notice, and may require additional measures to stabilize the soil and control erosion and sedimentation. If additional measures are required by the Official, written notice of such additional measures shall be delivered to the owner, and the owner shall continue to be covered by the Permit issued with respect to the land-disturbing activity until a final and complete inspection is made and the Official approves the project as having been satisfactorily completed and delivers to the owner, within ten (10) days of the date of such approval, a certification of completion showing that the requirements of the Permit have been fulfilled. At that time the site and/or the project constructed thereon may come under the operation of other ordinances of the City.

(l) The Control Plan must be accompanied by a letter of credit, a surety bond or a cash bond, with the City having the right to determine which type of security shall be furnished. A letter of credit, a surety bond or a cash bond (a letter of credit, a surety bond and a cash bond shall be herein collectively referred to as "Security") shall be furnished to the City in accordance with the following provisions:

(1) The Official shall require a letter of credit, a surety bond or a cash bond in such amount as specified herein to assure that the work, if not completed or if not in accordance with the permitted plans and specifications, will be corrected to eliminate hazardous conditions, erosion and/or drainage problems. In lieu of a letter of credit or a surety bond required by the City, the owner may file a cash bond with the City in an amount equal to that which would be required in the letter of credit or the surety bond.

(2) The Security shall contain, or have attached to it as an exhibit, a legal description of the site. The Security shall remain in effect for such reasonable period of time as may be required by the Official.

(3) The Security for clearing operations only shall be in the amount of $1,000 per acre for each acre, or fraction of an acre, disturbed or affected by such operations.

(4) The Security for earthwork or clearing and earthwork operations shall be in the amount of $3,000 per acre for each acre, or fraction of an acre, disturbed or affected by such operations.

(5) Security equal to double the amounts required in subsections (3) and (4) herein, shall be required where clearing or earthwork is performed in areas designated as floodways, floodplains or areas susceptible to landslides.

(6) Each letter of credit must be issued by a bank which has its principal office in Jefferson County, Alabama.

(7) Each letter of credit must be issued by a bank which is reasonably satisfactory to the City and each surety bond must be issued by a surety company which is qualified to do business in Alabama and which is otherwise reasonably satisfactory to the City.

Article 6
MONITORING AND INSPECTION

Section 6.01

The Official may periodically monitor the quality of storm water and the concentration of pollutants in storm water discharges from land-disturbing activities permitted to the MS4 pursuant to this ordinance.

Section 6.02 Detection of Illicit Connections, Improper Disposal and/or Discharges.

The Official shall take appropriate steps to detect and eliminate illicit connections and eliminate improper disposal and/or discharge to the MS4, including the required dry-weather and wet-weather programs to screen illicit connections and improper discharges and identify their source or sources from land-disturbing activities.

Section 6.03 Inspections.

(a) The Official, bearing proper identification, may enter and inspect all land-disturbing activities for regular periodic inspections, investigations, monitoring, observations, measurements, enforcement, sampling and testing to verify compliance with the provisions of this ordinance and the specific BMP Plans and Control Plans for such land-disturbing activities. The Official shall notify the owner of such property, his Contact Person or his representative on the construction site prior to inspection, and the inspections shall be conducted at reasonable times. The owner or operator of a construction site with respect to which an NPDES permit has been issued shall provide the Official with the information required in Section 3.01(c) prior to the commencement of the work on the construction site. The Official shall inspect the construction site to confirm the implementation and the maintenance of BMP Plans, otherwise, such site shall be inspected when the Official believes, as a result of complaints or monitoring activity, that land-disturbing activities on the site are causing a substantial pollutant loading which threatens the MS4.

(b) Upon the refusal by any property owner to allow the Official to enter, or to continue an inspection on, a site on which land-disturbing activities or construction work is being done, the Official shall terminate the inspection or confine the inspection to areas to which no objection is raised. If an agent of the Official was making, or attempting to make, such inspection, the agent shall promptly report to the Official the refusal and the reasons for the refusal, if the reasons are known by the agent. The Official may seek appropriate legal remedies to enable him to make or complete such inspection, including seeking appropriate legal remedies from any court having jurisdiction over the matter. If the court grants a remedy to the Official, the property owner must reimburse the City all of the costs and expenses incurred by the City in obtaining such remedy, including court costs and reasonable attorneys' fees.

(c) If the Official has reasonable cause to believe that discharges from the land-disturbing activities to the MS4 may cause an imminent threat to human health or the environment, an inspection of the site may take place at any time and without notice

to the owner of the property or a representative on site. The Official shall present proper credentials upon request of the owner or his representative.

(d) At any time during the conduct of an inspection, or at such other times as the Official may request information from an owner or his representative, the owner or representative may identify areas of its business, material or processes which contain a trade secret and an inspection of which might reveal such trade secret. If the Official has no clear and convincing reason to question such assertion of the owner or his representative, the inspection report shall note that trade secret information has been omitted. To the extent practicable, the Official shall protect all information which is designated as a trade secret by the owner or his representative.

Article 7
ENFORCEMENT AND ABATEMENT

Section 7.01 Unauthorized Discharge a Public Nuisance.

Any discharge of storm water made in violation of this ordinance or of any condition of a Permit issued pursuant to this ordinance is hereby declared a public nuisance and shall be subject to correction and/or abatement in accordance with applicable law.

The following direct or indirect discharges into the MS4 are allowable under the terms of this ordinance unless determined by the Official to be a source of contamination to the community water: landscape irrigation; uncontaminated water from foundation and footing drains; discharges from springs; lawn watering; and discharges from fire fighting activities.

Section 7.02 Accidental Discharges.

(a) In the event of any discharge of a hazardous substance or a significant spill of a hazardous substance to the MS4 which could constitute a threat to human health or the environment, the owner or operator of the site shall give notice to the Official and the local Emergency Management Authority in the same manner and within the same time as is required by State regulations for notice to ADEM.

(b) The owner or operator of such property shall take all reasonable steps to minimize any adverse impact to the community waters caused by discharges to the MS4, including such improved or additional monitoring as may be necessary to determine the nature and impact of the discharge. Absent a compelling public interest to the contrary, it shall not be a defense for the owner or operator in an enforcement action that it would have been necessary to halt or reduce the business or activity of the site, or any project or facility thereon, to maintain water quality and minimize any adverse impact that the discharge may cause.

Section 7.03 NPDES Permits for Storm Water Discharge Associated with Construction Activities.

(a) Compliance with the conditions, limitations and restrictions set forth in an ADEM NPDES permit shall be deemed compliance with the terms of this ordinance, except as specifically noted in Section 5.01(ii), Article 6 or Article 7.

(b) No enforcement action shall be taken by the City for a violation of the terms of this ordinance if any of the following has occurred:

(1) ADEM has issued a notice of violation with respect to the same alleged violation and is proceeding with an enforcement action with respect to such alleged violation;

(2) ADEM has issued an administrative order with respect to the same alleged violation and is proceeding with an enforcement action with respect to such violation; or

(3) ADEM has commenced, and is proceeding with, an enforcement action, or has completed any other type of administrative or civil action, with respect to such alleged violation.

(c) Any determination or resolution made by ADEM with respect to an alleged violation shall be final, and the alleged violation shall not be made the subject of any additional enforcement action by the City; provided, however, that an enforcement action may be pursued by the City for continued or continuing substantial violations, subject to the provisions of Section 7.03(b) and pursuant to the following:

(1) ADEM will provide the Official with access to the ADEM NPDES permits issued with respect to each property within its jurisdiction, including inspections and notification of any enforcement actions taken by ADEM.

(2) The Official will notify ADEM and the permit holder, in writing, when the Official demonstrates that an NPDES permit holder is causing a substantial pollutant loading to the MS4.

(3) The Official will rely on ADEM to regulate, and to take enforcement actions against, Permittees until such time as a Permittee is in continuing substantial violation of its NPDES permit and ADEM has failed to respond in a timely manner in accordance with Code of Alabama 1975, § 11-89C-1 et seq. If there is a continuing substantial violation of an ADEM NPDES permit and ADEM fails to respond as stated above, the Permittee shall be subject to this ordinance for that violation.

Section 7.04 Immediate Threats to Public Health or Welfare.

Notwithstanding any other provision in this ordinance to the contrary, in the event of an immediate threat to the public health or welfare, the Official may take all appropriate measures to remove or alleviate such threat.

Section 7.05 Notification; Enforcement Remedies.

(a) Notification of Violation: Whenever the Official finds that any person is in violation of any provision of this ordinance, or any order issued hereunder, the Official or his agent may serve upon such person written notice of the violation. Within ten (10) calendar days of the date of such notice, an explanation of the violation and a plan for the satisfactory correction and future prevention thereof, including specific required actions, shall be submitted to the Official. Submission of such plan shall in no way relieve such person in violation of this ordinance of liability for any violations occurring before or after receipt of the notice of violation.

(b) Compliance Order: When the Official finds that any person has violated, or continues to violate, this ordinance, he may issue a compliance order to the violator, directing that, within a specified time period, adequate structures and devices be installed, or procedures implemented, and properly operated, or other action be taken, to remedy such violation. Compliance orders may also contain such other requirements as may be reasonably necessary and appropriate to address such

violation, including the construction of appropriate structures, installation of devices and self-monitoring and management practices.

(c) Cease and Desist Orders: When the Official finds that any person has violated, or continues to violate, this ordinance or any order issued under this ordinance, the Official may issue an order to such person to cease and desist all such violations immediately, and direct such person in violation of this ordinance to:

(1) comply with this ordinance forthwith; or

(2) take such appropriate remedial or preventive action as may be required to address properly a continuing or threatened violation of this ordinance, including halting operations and terminating the discharge.

Section 7.06 Unlawful Acts, Misdemeanor.

It shall be unlawful for any person to:

(a) violate any provision of this ordinance;

(b) violate the provisions of any Permit issued pursuant to this ordinance;

(c) fail or refuse to comply with any lawful notice to abate issued by the Official which has not been appealed to the Storm Water Appeal Board of the Authority ("Board") within the time specified by such notice; or

(d) violate any lawful order of the Board.

Such person shall be guilty of a misdemeanor; and each day of such violation, failure or refusal to comply with this ordinance shall be deemed a separate offense and punishable accordingly. Any person found to be in violation of any of the provisions of this ordinance shall be punished by a fine of not less than $100.00 and not more than $500.00 and/or up to 180 days in jail.

Section 7.07 Judicial Proceedings and Relief.

(a) The Official may initiate proceedings in any court of competent jurisdiction against any person who has, or who, the Official has reason to believe, is about to:

(1) violate any provision of this ordinance;

(2) violate any provision of a Permit;

(3) fail or refuse to comply with any lawful order issued by the Official which has not been timely appealed to the Board; or

(4) violates any lawful order of the Board.

(b) The Official, with the consent of the City Council, may also initiate civil proceedings in any court of competent jurisdiction seeking monetary damages for any damages caused to public storm water facilities by any person, and may seek injunctive or other equitable relief to enforce compliance with the provisions of this ordinance or to force compliance with any lawful orders of the Official or the Board.

Article 8
STORM WATER APPEAL BOARD
OF STORM WATER MANAGEMENT AUTHORITY

Section 8.01 Storm Water Appeal Board of Storm Water Management Authority.

The Authority established a board of five (5) members known as the Storm Water Appeal Board of Storm Water Management Authority ("Board"). The composition of the Board, the duties of the members of the Board, the power of the Board to grant variances, the hearing and review procedures of the Board and other matters with respect to the Board are set forth in a resolution adopted by the Authority on May 25, 1999, which resolution is on file, and open for inspection, in the office of the Authority at the Jefferson County Courthouse.

Appeal to Board of an Order of the Official: Any person aggrieved by an order of the Official may appeal said order or determination to the Board and have such order reviewed by the Board. A written notice of appeal shall be filed with the Official and with the Board, and such notice shall set forth with particularity the order complained of, and the relief sought by, the person filing the appeal. The appeal may be heard at a regular meeting of the Board or the chairman of the Board may call a special meeting of the Board to consider such appeal. The Board may, in its discretion, suspend the operation of the order until the Board has acted upon the appeal, which suspension must be made in writing and delivered to the Official and the person who filed the appeal by personal delivery or by certified or registered mail, return receipt requested.

Section 8.02 Variances.

(a) The Board may grant variances from the requirements of this ordinance; provided, that to do so would not result in the violation of the NPDES permit ALS000001 or any state or federal law or regulation; and provided, further, that exceptional circumstances, applicable to the site with respect to which the variance is requested, exist so that strict adherence to the provisions of this ordinance would result in unnecessary hardship and the granting of such variance would not result in a condition contrary to the intent of this ordinance.

(b) A party seeking a variance must submit a written petition for a variance, which sets forth the specific variance sought and the reasons therefor, with supporting data as to why the requested variance should be granted. The petition shall include all information necessary to evaluate the requested variance. The petition for a variance shall be filed with the Official.

(c) The Official shall conduct a review of the petition for a variance within ten (10) working days after his receipt of such petition and may either support, or object to, the petition. The Official shall prepare a written statement of support of, or a written statement of the reason or reasons for his objection to, such petition, and deliver a copy of such statement to the Board and to the person requesting the variance.

(d) Once the Official has issued such statement or such ten (10)-day period for review has expired, the petition shall be subject to Board action at the next regularly scheduled meeting of the Board or at a special meeting of the Board, called at the discretion of the chairman of the Board.

Article 9
MISCELLANEOUS

Section 9.01 Notices.

Whenever the City is required or permitted to:

(a) give a notice to any party, such notice must be in writing; or

(b) deliver a document to any party; such notice or document may be delivered by personal delivery, certified mail (return receipt requested), registered mail (return receipt requested) or a generally recognized overnight carrier, to the address of such party which is in the records of the City or is otherwise known to the City.

Section 9.02 References.

Whenever an Article or Section is referred to in this ordinance, unless the context clearly indicates the contrary, such reference shall be to an article or section of this ordinance.

Section 9.03 Severability.

The provisions of this ordinance are severable. If any part of this ordinance is determined by a court of law to be invalid, unenforceable or unconstitutional, such determination shall not affect any other part of this ordinance.

Section 9.04 Captions.

The captions of articles and sections are for the purpose of reference only, and such captions shall not affect the meaning of any provision of this ordinance.

Section 9.05 Effective Date.

This ordinance shall be published as required by law and shall become effective at 12:01 A.M. on October 1, 1999.

ADOPTED: This ___ day of _____, 1999.

_____
Council President

APPROVED: This 28th day of June, 1999.

Carlton L McCluster
Mayor

ATTESTED:

James L Rhodes
City Clerk

7

AN ORDINANCE

NO. 38

AN ORDINANCE ENTITLED "AN ORDINANCE TO PROHIBIT THE OBSTRUCTION OF SEWERS, DRAINS AND GUTTERS IN THE CITY OF MIDFIELD OR IN THE POLICE JURISDICTION THEREOF AND TO PROVIDE FOR THE PUNISHMENT THEREOF".

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDFIELD, ALABAMA, AS FOLLOWS:

1. That it shall be unlawful for any person to place or deposit in any manhole or other opening into a sanitary sewer or to place or deposit in any storm sewer or into any drain or gutter whether or not the same is connected with the sanitary or storm sewer in the City, any rock, brick, garbage, rubbish or manure or any mineral, metallic, wooden or other solid substance whatsoever or to damage or obstruct or causing the damaging or obstruction of any such sewer, drain or gutter in the City of Midfield or in the police jurisdiction thereof.

2. Any person violating any provision of this Ordinance shall on conviction thereof be punished by a fine of not less than one nor more than one hundred dollars, or by imprisonment in the jail or at hard labor for a period of not exceeding six months, or by both such fine and imprisonment, at the discretion of the recorder or the judge trying the case.

3. This ordinance shall become effective immediately upon its adoption, approval and publication as provided by law and a copy of the same shall be spread at length upon the Council Journal.

Adopted this the 8th day of April, 1957.

Ruth Garner
Clerk-Treasurer

Approved this the 8th day of April, 1957.

T. J. Walldrop
Mayor

I certify that I have posted a copy of the foregoing Ordinance No. 38 in each of the three following public places, all of which are located within the corporate limits of the City of Midfield.

1. Mayor's Office
2. Midfield Apothecary
3. Midfield Super Market

Ruth Garner
Clerk-Treasurer

ORDINANCE # 290

106-

Midfield, ALABAMA

FLOOD DAMAGE PREVENTION ORDINANCE

ARTICLE 1. Statutory Authorization

The Legislature of the State of Alabama has in Title 11, Chapter 52, Sections 1-84: and Title 41, Chapter 9, Section 166 of the Code of Alabama 1975 authorized local governmental units to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. Therefore, the City of Midfield, Alabama does ordain as follows:

SECTION B. Findings of Fact

(1) The flood hazard areas of Midfield are subject to periodic inundation which results in hazards to property, health and safety, and may disrupt commerce and governmental services. Also, this inundation can result in extraordinary public expenditures for flood protection and relief and impairment of the tax base which adversely affect the public health, safety and general welfare.

(2) These potential flood losses are caused by the cumulative effect of obstructions in floodplains causing increases in flood heights and velocities, and by the occupancy in flood hazard areas by uses vulnerable to floods or hazardous to other properties which are inadequately elevated, flood-proofed or otherwise protected from flood damage.

SECTION C. Statement of Purpose

It is the purpose of this ordinance to promote the public health, safety, and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

(1) restrict or prohibit uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;

(2) require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;

(3) control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters;

(4) control filling, grading, dredging and other development which may increase erosion or flood damage, and;

(5) prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands.

SECTION D. OBJECTIVES.

The objectives of this ordinance (or regulation) are:

(1) to protect human life and health;

(2) to minimize expenditure of public money for costly flood control projects;

(3) to minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

(4) to minimize prolonged business interruptions;

(5) to minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in floodplains;

(6) to help maintain a stable tax base by providing for the sound use and development of flood prone areas in such a manner as to minimize flood blight areas, and;

(7) to insure that potential home buyers are notified that property is in a flood area.

ARTICLE 2. DEFINITIONS.

Unless specifically defined below, words or phases used in this ordinance shall be interpreted so as to give them the meaning they have in common usage and to give this ordinance its most reasonable application.

"Addition (to an existing building)" means any walled and roofed expansion to the perimeter of a building in which the addition is connected by a common load-bearing wall other than a fire wall. An y walled and roofed addition which is connected by a fire wall or is separated by independent perimeter load-bearing walls is new construction.

"Appeal" means a request for a review of the Mayor's interpretation of any provision of this ordinance or a request for a variance.

"Area of shallow flooding" means a designated AO Zone on a Atmore's Flood Insurance Rate Map (FIRM) with base flood depths from one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable and indeterminate, and where velocity flow may be evident.

"Area of special flood hazard" is the land in the floodplainwithin a community subject to a one percent or greater chance of flooding in any given year.

"Base flood" means the flood having a one percent chance of being equaled or exceeded in any given year.

"Basement" means that portion of a building having its floor subgrade (below ground level) on all sides.

"Building" means any structure built for support, shelter, or enclosure for any occupancy or storage.

"Development" means any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavating, drilling operations, or permanent storage of materials or equipment.

"Elevated building" means a non-basement building built to have the lowest floor elevated above the ground level by means of fill, solid foundation perimeter walls, pilings, columns (posts and piers), shear walls, or breakaway walls.

"Existing construction" means any structure for which the "start of construction" commenced before (the effective date of the first floodplain management code, ordinance, or standard based upon specific technical base flood elevation data which established the area of special flood hazard) or (specific date).

"Existing manufactured home park or subdivision" means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the floodplain management regulations adopted by a community (before the effective date of the first floodplainm anagement code, ordinance, or standard based upon specific technical base flood elevation data which established the area of special flood hazard) or (specific date).

"Expansion to an existing manufactured home park or subdivision" means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring

of concrete pads).

"Flood" or "flooding" means a general and temporary condition of partial or complete inundation of normally dry land areas from:

(1) the overflow of inland or tidal waters;

(2) the unusual and rapid accumulation or runoff of surface waters from any source.

"Flood Hazard Boundary Map (FHBM)" means an official map of a Atmore, issued by the Federal Emergency Management Agency, where the boundaries of the areas of special flood hazard have been defined as Zone A.

"Flood Insurance Rate Map (FIRM)" means an official map of a Atmore, on which the Federal Emergency Management Agency has delineated both the areas of special flood hazard and the risk premium zones applicable to the Atmore.

"Flood Insurance Study" is the official report provided by the Federal Emergency Management Agency. The report contains flood profiles, as well as the Flood Boundary Floodway Map and the water surface elevation of the base flood.

"Floodway" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

"Floor" means the top surface of an enclosed area in a building (including basement), i.e., top of slab in concrete slab construction or top of wood flooring in wood frame construction. The term does not include the floor of a garage used solely for parking vehicles.

"Functionally dependent facility" means a facility which cannotbe used for its intended purpose unless it is located or carried be used for its intended purpose unless it is located or carried out in close proximity to water, such as a docking or port facility necessary for the loading and unloading of cargo or passengers, shipbuilding, ship repair, or seafood processingfacili ties. The term does not include long-term storage, manufacture, sales, or service facilities.

"Highest adjacent grade" means the highest natural elevation of the ground surface, prior to construction, next to the proposed walls of a building.

"Historic Structure" means any structure that is

(1) Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the

Interior as meeting the requirements for individual listing on the National Register:

(2) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district:

(3) Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or

(4) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:

(a) By an approved state program as determined by the Secretary of the Interior, or

(b) Directly by the Secretary of the Interior in states without approved programs.

"Local Administrator" means the person or office designated to administer this ordinance and is the Building Inspector.

"Manufactured home" means a building, transportable in one or more sections, which is built on a permanent chassis and designed to be used with or without a permanent foundation when connected to the required utilities. The term also includes park trailers, travel trailers, and similar transportable structures placed on a site for 180 consecutive days or longer and intended to be improved property.

"Mean Sea Level" means the average height of the sea for all stages of the tide. It is used as a reference for establishing various elevations within the flood plain. For purpose of thisord inance the term is synonymous with National Geodetic Vertical Datum (NGVD).

"National Geodetic Vertical Datum (NGVD)" as corrected in 1929 is a vertical control used as a reference for establishing varying elevations within the flood plain.

"New construction" means structures for which the "start of construction" commenced on or after the effective date of this ordinance.

"New manufactured home park or subdivision home park or subdivision" means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either

final site grading or the pouring of concrete pads) is completed on or after the effective date of floodplain management regulations adopted by a community.

"Recreational vehicle" means a vehicle which is:

(1) built on a single chassis;

(2) 400 square feet or less when measured at the largest horizontal projection;

(3) designed to be self-propelled or permanently towable by a light duty truck; and

(4) designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

(5) be on site less than 180 consecutive days

"Start of construction" includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, or improvement was within 180 days of the permit date. The actual start means the first placement of permanent construction of a building (including a manufactured home) on a site, such as the pouring of slabs or footings, installation of piles, construction of columns, or any work beyond the stage of excavation or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main building. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

"Structure" means a walled and roofed building that is principally above ground, a manufactured home, a gas or liquid storage tank, or other man-made facilities or infrastructures.

"Substantial damage" means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

"Substantial improvement" means any combination of repairs, reconstruction, alteration, or improvements to a building, taking place during a five (5) year period, in which the cumulative cost

equals or exceeds fifty percent of the market value of the building. The market value of the building should be (1) the appraised value of the building prior to the start of the initial repair or improvement, or (2) in the case of damage, the value of the building prior to the damage occurring. This term includes structures which have incurred "substantial damage", regardless of the actual repair work performed. For the purpose of this definition, "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the building. The term does not, however, include any project for improvement of a building required to comply with existing health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions.

"Substantially improved existing manufactured home parks or subdivision" is where the repair, reconstruction, rehabilitation or improvement of the streets, utilities and pads equals or exceeds 50 percent of the value of the streets, utilities and pads before the repair, reconstruction or improvement commenced.

"Variance" is a grant of relief from the requirements of this ordinance which permits construction in a manner otherwise prohibited by this ordinance where specific enforcement would result in unnecessary hardship.

ARTICLE 3. GENERAL PROVISIONS.

SECTION A. LANDS TO WHICH THIS ORDINANCE APPLIES.

This ordinance shall apply to all areas of special flood hazard within the jurisdiction of Midfield.

SECTION B. BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD.

The areas of special flood hazard identified by the Federal Emergency Management Agency in its Flood Study dated July 7, 1980, with accompanying maps and other supporting data, and any revision thereto, are adopted by reference and declared to be a part of this ordinance .

SECTION C. ESTABLISHMENT OF DEVELOPMENT PERMIT.

A Development Permit shall be required in conformance with the provisions of this ordinance prior to the commencement of any development activities.

SECTION D. COMPLIANCE.

No structure or land shall hereafter be located, extended, converted or structurally altered without full compliance with the terms of this ordinance and other applicable regulations.

SECTION E. ABROGATION AND GREATER RESTRICTIONS.

This ordinance is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this ordinance and another conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

SECTION F. INTERPRETATION.

In the interpretation and application of this ordinance all provisions shall be: (1) considered as minimum requirements; (2) liberally construed in favor of the governing body, and; (3) deemed neither to limit nor repeal any other powers granted under state statutes.

SECTION G. WARNINGS AND DISCLAIMER OF LIABILITY.

The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering consideration. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This ordinance does not imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damages. This ordinance shall not create liability on the part of the City of Midfield or by any officer or employee thereof for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made thereunder.

SECTION H. PENALTIES FOR VIOLATION.

Violation of the provisions of this ordinance or failure to comply with any of its requirements, including violation of conditions and safeguards established in connection with grants of variance or special exceptions, shall constitute a misdemeanor. Any person who violates this ordinance or fails to comply with any of its requirements shall, upon conviction thereof, be fined not more that $100.00 or imprisoned for not more than 1 days, or both, and in addition, shall pay all costs and expenses involved in the case. Each day such violation continues shall be considered a separate offense. Nothing herein contained shall prevent the CityMidfield from taking such other lawful action as is necessary to prevent or

remedy any violation.

ARTICLE 4. ADMINISTRATION.

SECTION A. DESIGNATION OF LOCAL ADMINISTRATOR.

The Building Inspector is hereby appointed to administer and implement the provisions of this ordinance.

SECTION B. PERMIT PROCEDURES.

Application for a Development Permit shall be made to the local administrator on forms furnished by him or her prior to any development activities, and may include, but not be limited to, the following plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, earthen fill, storage of materials, drainage facilities, and the location of the foregoing. Specifically, the following information is required:

(1) Application Stage.

(a) Elevation in relation to mean sea level of the proposed lowest floor (including basement) of all buildings:

(b) Elevation in relation to mean sea level to which any non-residential building will be flood- proofed;

(c) Certificate from a registered professional engineer or architect that the non-residential flood-proofed building will meet the flood- proofing criteria in Article 5, Section B (2);

(d) Description of the extent to which any watercourse will be altered or relocated as a result of proposed development, and;

(2) Construction Stage.

Provide a floor elevation or flood-proofing certification after the lowest floor is completed. Upon placement of the lowest floor, or flood-proofing by whatever construction means, it shall be the duty of the permit holder to submit to the local administrator a certification of the elevation of the lowest floor, flood-proofed elevation, as built, in relation to mean sea level. Said certification shall be prepared by or under the direct supervision of a registered land surveyor or professional engineer and certified by same. When flood-proofing is utilized for a particular

building, said certification shall be prepared by or under the direct supervision of a professional engineer or architect and certified by same. Any work undertaken prior to submission of the certification shall be at the permit holder's risk. The local administrator shall review the floor elevation survey data submitted. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to further progressive work being permitted to proceed. Failure to submit the survey or failure to make said corrections required hereby, shall be cause to issue a stop-work order for the project.

SECTION C. DUTIES AND RESPONSIBILITIES OF THE LOCAL ADMINISTRATOR.

Duties of the local administrator shall include, but not be limited to:

(1) Review all development permits to assure that the permit requirements of this ordinance have been satisfied.

(2) Advise permittee that additional federal or state permits may be required, and if specific federal or state permit requirements are known, require that copies of such permits be provided and maintained on file with the development permit.

(3) Notify adjacent communities and the Alabama Department of Economic and Community Affairs prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.

(4) Assure that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.

(5) Verify and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved buildings, in accordance with Article 4, Section B (2).

(6) Verify and record the actual elevation (in relation to mean sea level) to which the new or substantially improved buildings have been flood-proofed, in accordance with Article 4, Section B (2).

(7) When flood-proofing is utilized for a particular building, the local administrator shall obtain certification from a registered professional engineer or architect, in accordance with Article 5, Section B (2).

(8) Where interpretation is needed as to the exact location of boundaries of the areas of special flood hazard (for example, where there appears to be a conflict between a mapped boundary and actual field conditions) the local administrator shall make the necessary interpretation. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in this article.

(9) When base flood elevation data or floodway data have not been provided in accordance with Article 3, Section B, then the local administrator shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a federal, state or other source, in order to administer the provisions of Article 5.

(10) All records pertaining to the provisions of this ordinance shall be maintained in the office of the local administrator and shall be open for public inspection.

SECTION D. VARIANCE PROCEDURES.

(1) The Board of Zoning Adjustment as established by theCity Council shall hear and decide appeals and requests for variances from the requirements of this ordinance.

(2) The Board of Zoning Adjustment shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the local administrator in the enforcement or administration of this ordinance.

(3) Any person aggrieved by the decision of the Board of Zoning Adjustment
may appeal such decision to the District Court as provided by law.

(4) Variances may be issued for the repair or rehabilitation of historic structures (see definition) upon a determination that the proposed repair or rehabilitation will not preclude the structure's continue designation as a historic structure and the variance is the minimum to preserve the historic character and design of the structure.

(5) In passing upon such applications, the Board of Zoning Adjustment shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this ordinance, and:

(a) the danger that materials may be swept onto other

lands to the injury of others;

(b) the danger to life and property due to flooding or erosion damage;

(c) the susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

(d) the importance of the services provided by the proposed facility to the community;

(e) the necessity of the facility to a waterfront location, in the case of a functionally dependent facility.

(f) the availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;

(g) the compatibility of the proposed use with existing and anticipated development;

(h) the relationship of the proposed use to the comprehensive plan and floodplain management program for that area;

(i) the safety of access to the property in times of flood for ordinary and emergency vehicles;

(j) the expected heights, velocity, duration, rate of rise and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site, and;

(k) the costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.

(6) Upon consideration of the factors listed above, and the purposes of this ordinance the Board of Zoning Adjustment may attach such conditions to the granting of variances as it deems necessary to further the purposes of this ordinance.

(7) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

(8) Conditions for Variances:

(a) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief, and in the instance of a historical building, a determination that the variance is the minimum necessary so as not to destroy the historic character and design of the building;

(b) Variances shall only be issued upon (i) a showing of good and sufficient cause, (ii) a determination that failure to grant the variance would result in exceptional hardship, and; (iii) a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisance, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.

(c) Any applicant to whom a variance is granted shall be given written notice specifying the difference between the base flood elevation and the elevation to which the structure is to be built and stating that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

(d) The local administrator shall maintain the records of all appeal actions and report any variances to the Federal Emergency Management Agency upon request.

ARTICLE 5. PROVISIONS FOR FLOOD HAZARD REDUCTION.

SECTION A. GENERAL STANDARDS.

In all areas of special flood hazard the following provisions are required.

(1) New construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure;

(2) Manufactured homes shall be anchored to prevent flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This standard shall be in addition to and consistent with applicable state requirements for resisting wind forces.

(3) New construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage;

(4) New construction or substantial improvements shall be constructed by methods and practices that minimize flood damage;

(5) Electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within components during conditions for flooding.

(6) New and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;

(7) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters;

(8) On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding, and;

(9) Any alteration, repair, reconstruction or improvements to a building which is in compliance with the provisions of this ordinance or shall meet the requirements of "new construction" as contained in this ordinance.

(10) Any alteration, repair, construction or improvements to a building which is not in compliance with the provisions of this ordinance, shall be undertaken only if said non-conformity is not furthered, extended, or replaced.

SECTION B. SPECIFIC STANDARDS.

In all areas of special flood hazard where base flood elevation data have been provided, as set forth in Article 3, Section B. or Article 4, Section C (11), the following provisions are required:

(1) Residential Construction. New construction or substantial improvement of any residential building or manufactured home shall have the lowest floor, including basement, elevated no lower than at base flood elevation. Should solid foundation perimeter walls be used to elevate a structure, openings sufficient to facilitate the unimpeded movements of flood waters shall be provided in accordance with standards of Article 5, Section B (3).

(2) Non-Residential Construction. New construction or substantial improvement of any commercial, industrial, or non-residential building (or manufactured home) shall have the lowest floor, including basement, elevated no lower than at the base flood elevation. Buildings located in all A-zones may be flood-proofed in lieu of being elevated provided that all areas of the building below the required elevation are water tight with walls substantially impermeable to the passage of water, and use structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. A registered professional engineer or architect shall certify that the standards of this subsection are satisfied. Such certification shall be provided to the official as set forth in Article 4, Section C (7).

(3) Elevated Buildings. New construction or substantial improvements of elevated buildings that include fully enclosed areas formed by foundation and other exterior walls below the base flood elevation shall be designed to preclude finished living space and designed to allow for the entry and exit of floodwaters to automatically equalize hydrostatic flood forces on exterior walls.

(a) Designs for complying with this requirement must either be certified by a professional engineer or architect or meet the following minimum criteria:

(i) Provide a minimum of two openings having a total net area of not less than one square inch for every square foot enclosed area subject to flooding;

(ii) The bottom of all openings shall be no higher than one foot above grade; and,

(iii) Openings may be equipped with screens, louver, valves or other coverings or devices provided they permit the automatic flow of floodwaters in both directions.

(b) Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance equipment used in connection with the premises (standard exterior door) or entry to the living area (stairways or elevator); and

(c) The interior portion of such enclosed area shall not be partitioned or finished into separate rooms.

(4) Standards for Manufactured Homes and Recreational Vehicles

(a) All manufactured homes placed, or substantially improved, on individual lots or parcels, in expansions to existing manufactured home parks or subdivisions, in substantially improved manufactured home parks or subdivisions, or in new manufactured home parks or subdivisions must meet all the requirements for new construction, including elevation and anchoring.

(b) All manufactured homes placed or substantially improved in an existing manufactured home park or subdiv ision must be elevated so that:

(i) The lowest floor of the manufactured home is elevated no lower than at the level of the base flood elevation, or

(ii) The manufactured home chassis is supported by reinforced piers or other foundation elements of at least an equivalent strength, of no less than 36 inches in height above grade.

(iii) The manufactured home must be securely anchored to the adequately anchored foundation system to resist flotation, collapse and lateral movement.

(iv) In an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood, any manufactured home placed or substantially improved must meet the standards of Article 5, Section B(4)(b)(i) and (iii) above.

(c) All recreational vehicles placed on sites must either:

(i) Be fully licensed and ready for highway use, or

(ii) The recreational vehicle must meet all the requirements for new construction, including anchoring and elevation requirements of Article, Section B (4)(a) or (b), (i) and (iii) above.

(5) Floodways. Located within areas of special flood hazard established in Article 3, Section B, are areas designated as floodways. Since the floodway is an extremely

hazardous area due to the velocity of flood waters which carry debris, potential projectiles and has erosion potential, the following provisions shall apply:

(a) Prohibit encroachments, including fill, new construction, substantial improvements and other developments unless certification (with supporting technical data) by a registered professional engineer is provided demonstrating that encroachments shall not result in any increase in flood levels during occurrence of the base flood discharge;

(b) If Article 5, Section B (5)(a) above, is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provision of Article 5.

(c) Prohibit the placement of manufactured homes (mobile homes), except in an existing manufactured homes (mobile homes) park or subdivision. A replacement manufactured home may be placed on a lot in an existing manufactured home park or subdivision provided the anchoring standards of Article 5, Section A (2), and the elevation standards of Article 5, Section B (1) and the encroachment standards of Article 5, Section B(5)(a), are met.

SECTION C. <u>STANDARDS FOR STREAMS WITHOUT ESTABLISHED BASE ELEVATIONS AND/OR FLOODWAYS.</u>

Located within the areas of special flood hazard established in Article 3, Section B, when streams exist but where no base flood data has been provided or where base flood data has been provided without elevations the following provisions apply:

(1) No encroachments, including fill material or structures shall be located within areas of special flood hazard, unless certification by a registered professional engineer is provided demonstrating that the cumulative effect of the proposed development, when combined with all other existing and anticipated development will not increase the water surface elevation of the base flood more than one foot at any point within the community.

The engineering certification should be supported by technical data that conforms to standard hydraulic engineering principles.

(2) New residential construction or substantial improvements of buildings shall be elevated 2 feet above the highest

adjacent grade.

(3) New non-residential construction or substantial improvements of noe-residential buildings shall be elevated 2 feet above the highest adjacent grade or floodproofed in accordance with the standards set forth in Article 5, Section B (2).

SECTION D. STANDARDS FOR SUBDIVISION PROPOSALS.

(1) All subdivision proposals shall be consistent with the need to minimize flood damage;

(2) All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage;

(3) All subdivision proposals shall have adequate drainage provided to reduce exposure to flood hazards, and;

(4) Base flood elevation data shall be provided for subdivision proposals and other proposed development (including manufactured home parks and subdivisions) which is greater that the lesser of fifty lots or five acres.

SECTION E. STANDARDS FOR AREAS OF SHALLOW FLOODING (AO ZONES).

Located within the areas of special flood hazard established in Article 3, Section B, are areas designated as shallow flooding areas. These areas have special flood hazards associated with base flood depths of one to three feet (1' - 3') where a clearly defined channel does not exist and where the path of flooding is unpredictable and indeterminate; therefore, the following provisions apply;

(1) All new construction and substantial improvements of residential buildings shall have the lowest floor, including basement, elevated to the depth number specified on the Flood Insurance Rate Map, in feet, above the highest adjacent grade. If no depth number is specified, the lowest floor, including basement, shall be elevated, at least two (2) feet above the highest adjacent grade.

(2) All new construction and substantial improvements of non-residential buildings shall:

(a) Have the lowest floor, including basement, elevated to the depth number specified on the Flood Insurance

Rate Map, in feet, above the highest adjacent grade. If no depth number is specified, the lowest floor, including basement shall be elevated at least two (2) feet above the highest adjacent grade, or;

(b) Together with attendant utility and sanitary facilities be completely flood-proofed to or above that level so that any space below that level is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.

This flood damage prevention ordinance for the City of Midfield.

Adopted on October 25 1993.

BY: James R. Martin

(Signatures of Governing Board)

ORDINANCE NO. 103

AN ORDINANCE PROHIBITING THE THROWING OR DEPOSITING OF LITTER IN PUBLIC PLACES IN THE CITY OF MIDFIELD, ALABAMA; CONTROLLING THE DEPOSITING OF LITTER ON PRIVATE PREMISES; PROVIDING A LIEN FOR CITY CLEARANCE; AND PRESCRIBING PENALTIES FOR THE VIOLATION OF ITS PROVISIONS.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDFIELD, ALABAMA, AS FOLLOWS:

SECTION 1. Short Title. This Ordinance shall be known and may be cited as the "Midfield Anti-Litter Ordinance."

SECTION 2. Definitions. For the purposes of this Ordinance the following terms, phrases, words, and their derivations shall have the meaning given herein. When not inconsistent with the context, words used in the present tense include the future, words used in the plural number include the singular number, and words used in the singular number include the plural number. The word"shall" is always mandatory and not merely directory.

(1) "Authorized private receptacle" is a litter storage and collection receptacle.

(2) "City" is the City of Midfield.

(3) "Garbage" is putrescible animal and vegetable wastes resulting from the handling, preparation, cooking and consumption of food.

(4) "Litter" is "garbage," "refuse," and "rubbish" as defined herein and all other waste material, which, if thrown or deposited as herein prohibited, tends to create a danger to public health, safety and welfare.

(5) "Newspaper" is any newspaper of general circulation as defined by general law, any newspaper duly entered with the Post Office Department of the United States, in accordance with Federal statute or regulation, any any newspaper filed and recorded with any recording officer as provided by general law; and, in addition thereto, shall mean and include any periodical or current magazine regularly published with not less than four issues per year, and sold to the public.

(6) "Park" is a park, reservation, playground, beach, recreation center or any other public area in the City, owned or used by the City and devoted to active or passive recreation.

(7) "Person" is any person, firm, partnership, association, corporation, company or organization of any kind.

(8) "Private Premises" is any dwelling, house, building, or other structure, designed or used either wholly or in part for private residential purposes, whether inhabited or temporarily or continuously uninhabited or vacant, and shall include any yard, grounds, walk, driveway, porch, steps, vestibule or mailbox belonging or appurtenant to such dwelling, house, building, or other structure.

(9) "Public Place" is any and all streets, sidewalks, boulevards, alleys or other public ways and any and all public parks, squares, spaces, grounds, and buildings.

(10) "Refuse" is all putrescible and nonputrescible solid wastes (except body wastes), including garbage, rubbish, ashes, street cleanings, dead animals, abandoned automobiles, and solid market and industrial wastes.

(11) "Rubbish" is nonputrescible solid wastes consisting of both combustible and non-combustible wastes, such as paper, wrappings, cigarettes, cardboard, tin cans, yard clippings, leaves, wood, glass, bedding, crockery and similar materials.

(12) "Vehicle" is every device in, upon, or by which any person or property is or may be transported or drawn upon a highway, including devices used exclusively upon stationary rails or tracks.

SECTION 3. Litter in Public Places. No person shall throw or deposit litter in or upon any street, sidewalk or other public place within the City except in public receptacles, in authorized private receptacles for collection, or in official City Dumps.

SECTION 4. Placement of Litter in Receptacles So as to Prevent Scattering. Persons placing litter in public receptacles or in authorized private receptacles shall do so in such a manner as to prevent it from being carried or deposited by the elements upon any street, sidewalk or other public place or upon private property.

SECTION 5. Sweeping Litter Into Gutters Prohibited. No person shall sweep into or deposit in any gutter, street or other public place within the City the accumulation of litter from any building or lot or from any public or private sidewalk or driveway. Persons owning or occupying property shall keep the sidewalk in front of their premises free of litter.

SECTION 6. Merchants' Duty to Keep Sidewalks Free of Litter. No person owning or occupying a place of business shall sweep into or deposit in any gutter, street or other public place within the City the accumulation of litter from any building or lot or from any public or private sidewalk or driveway. Persons owning or occupying places of business within the City shall keep the sidewalk in front of their business premises free of litter.

SECTION 7. Litter Thrown by Persons in Vehicles. No person, while a driver or passenger in a vehicle, shall throw or deposit litter upon any street or other public place within the City, or upon private property.

SECTION 8. Truck Loads Causing Litter. No person shall drive or move any truck or other vehicle within the City unless such vehicle is so constructed or loaded as to prevent any load, contents or litter from being blown or deposited upon any street, alley, or other public place. Nor shall any person drive or move any vehicle or truck within the City, the wheels or tires of which carry onto or deposit in any street, alley, or other public place, mud, dirt, sticky substances, litter or foreign matter of any kind.

SECTION 9. Litter in Parks. No person shall throw or deposit litter in any park within the City except in public receptacles and in such a manner that the litter will be prevented from being carried or deposited by the elements upon any part of the park or upon any street or other public place. Where public receptacles are not provided, all such litter shall be carried away from the park by the person responsible for its presence and property disposed of elsewhere as provided herein.

SECTION 10. Litter in Lakes and Fountains. No person shall throw or deposit litter in any fountain, pond, lake, stream bay or any other body of water in a park or elsewhere within the City.

SECTION 11. Litter on Occupied Private Property. No person shall throw or deposit litter on any occupied private property within the City, whether owned by such person or not, except that the owner or person in control of private property may maintain authorized private receptacles for collection in such a manner that litter will be prevented from being carried or deposited by the elements upon any street, sidewalk or other public place or upon any private property.

SECTION 12. Owner to Maintain Premises Free of Litter. The owner or person in control of any private property shall at all times maintain the premises free of litter. Provided, however, that this Section shall not prohibit the storage of litter in authorized private receptacles for collection.

SECTION 13. Litter on Vacant Lots. No person shall throw or deposit litter on any open or vacant private property within the City whether owned by such person or not.

SECTION 14. Clearing of Litter from Open Private Property by City.

(a) Notice to Remove. The Building Inspector is hereby authorized and empowered to notify the owner of any open or vacant private property within the City or the agent of such owner to properly dispose of litter located on such owner's property which is dangerous to public health, safety or welfare. Such notice shall be by Registered Mail, addressed to said owner at his last known address.

(b) Action Upon Non-Compliance. Upon the failure, neglect or refusal of any owner or agent so notified, to properly dispose of litter dangerous to the public health, safety or welfare within ten (10) days after receipt of written notice provided for in sub-section (a) above, or within ten (10) days after the date of such notice in the event the same is returned to the City Post Office Department because of its inability to make delivery thereof, provided the same was properly addressed to the last known address of such owner, or agent, the Building Inspector, is hereby authorized and empowered to p ay for the disposing of such litter or to order its disposal by the City.

(c) Charges. When the City has effected the removal of such dangerous litter or has paid for its removal, the actual cost thereof shall be charged to the owner of such property. Said costs and expenses shall be subject to a delinquent penalty of six per cent (6%) in the event same is not paid in full on or before thirty (30) days from the date of notice to the property owner of such charges.

(d) Recorded Statement Condtitutes Lien. Where the full amount due the City is not paid by such owner within thirty (30) days after the disposal of such litter, as provided for in subsections (a) and (b) above, then, and in that case, the City Clerk shall cause to be recorded in the Probate Judge's Office of Jefferson County, Bessemer Division, and also in the City Clerk's Office, City Hall, Midfield, Alabama, asworn statement showing the cost and expense incurred for the work, the date the work was done and the location of the property on which said work was done. The recordation of such sworn statement shall constitute a lien and privilege on the property, and shall remain in full force and effect for the amount due in principal and interest plus costs of court, if any, for collection, until final payment has been made. Sworn statements recorded in accordance with the provisions hereof shall be prima facie evidence that all legal formalities have been complied with and that the work has been done properly and satisfactorily, and shall be full notice to every person concerned that the amount of the statement, plus interest, constitutes a charge against the property designated or described in the statement and that the same is due and collectible as provided by law.

SECTION 15. Penalties. Any person violating any of the provisions of this Ordinance shall be deemed guilty of a misdemeanor and upon conviction thereof shall be fined in an amount not exceeding ONE Hundred Dollars ($100.00) or be imprisoned in jail for a period not exceeding one hundred eighty (180) days or be both so fined and imprisoned at the discretion of the Judge or Recorder trying the case. Each day such violation is committed or permitted to continue shall constitute a separate offense and shall be punishable as such hereunder.

SECTION 16. Separability. If any section, subsection, sentence, clause, phrase or portion of this Ordinance is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct and indep endent provision and such holding shall not affect the validity of the remaining portions hereof.

SECTION 17. Ordinances Repealed. All ordinances and parts of ordinances in conflict with the provisions of this Ordinance are hereby repealed.

SECTION 18. This Ordinance shall become effective immediately upon its adoption, approval and publication, as required by law.

ADOPTED this the 14th day of March, 1966

Jean McQueen
Clerk-Treasurer

APPROVED this the 14th day of March, 1966

N. B. Bullard Sr
Mayor

I certify that the above Ordinance was published on the 15th day of March, 1966, by posting a copy of the same on each of the following three public places, all of which are located within the corporate limits of the City of Midfield, Alabama.

1. Mayor's Office.
2. Midfield Food Center
3. Williams Hardware

Jean McQueen
Clerk-Treasurer

ARTICLE II. - ABANDONED AND JUNKED PERSONAL PROPERTY

Sec. 18-37. - Short title.

This article shall be known and may be cited as the "Discarded, Abandoned, or Junked Vehicle and Boat Ordinance."

(Ord. No. 2006-6, § 1, 5-11-2006)

Sec. 18-38. - Definitions.

The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Abandoned, with respect to any motor vehicle, means any motor vehicle which as been parked, stored or left in the same or substantially same location for a period of time in excess of seven consecutive days. With respect to a boat, the term "abandoned" means any boat which has been parked, stored or left in the same or substantially same location on public property for a period of time in excess of seven consecutive days and on private property for a period of time in excess of 90 consecutive days.

Boats means any watercraft, including trailers and storage racks, therefor, located or stored any place within the city.

Custodian or *designated wrecker service* means a wrecker company, garage or custodian with which the city has a contract for the removal, storage and maintenance of vehicles, boats or other abandoned property.

Person means any person, firm, partnership, association, corporation, company, organization or entity or any kind.

Private property means any real property within the city which is privately owned and which not public property, as defined in this section.

Public property means any street or highway which shall include the entire width between the boundary lines of every public way publicly maintained for the purposes of vehicular traffic, and shall also mean any other publicly owned property, easement, right-of-way or facility including those properties owned by the city and the City of Midfield Board of Education.

Ranking law enforcement officer means the highest officially designated ranking law

enforcement officer for the city or his appointed designee or lawful substitute or the highest ranking law enforcement officer employed by the city at that time.

Vehicle or *motor vehicle* means any vehicle which is or was self-propelled and designated to travel along the ground and shall include, but not be limited to, automobiles, buses, motorbikes, motorcycles, motor scooters, trucks, tractors, go-carts, golf carts, campers, trailers and motor homes and any appurtenant attachment or trailer therefor.

(Ord. No. 2006-6, § 2, 5-11-2006)

Sec. 18-39. - Discarded, abandoned, junked or stolen motor vehicles or boats on public property prohibited and declared a nuisance; exceptions.

(a) No person shall store, leave or permit the parking, storing or leaving of any motor vehicle or boat of any kind, which is in an abandoned, stored, wrecked, dismantled, inoperative, rusted, junked or partially dismantled condition on any public property within the city for a period of time in excess of seven consecutive days.

(b) The presence of an abandoned, stored, wrecked, dismantled, inoperative, rusted, junked or partially dismantled vehicle, boat or parts thereof on public property in excess of the time allowed by this article, is hereby declared a public nuisance which may be abated by removal as such in accordance with the provisions of this article or as otherwise provide by law.

(c) This section shall not apply to any motor vehicle owned, stored, maintained or used in connection with the city and its official business.

(Ord. No. 2006-6, § 3, 5-11-2006)

Sec. 18-40. - Discarded, abandoned, junked or stolen vehicles or boats on private property prohibited, and declared a nuisance: exceptions.

(a) No person shall store, leave or permit the open parking, storing, or leaving of any motor vehicle or boat of any kind which is in an abandoned, stored, wrecked, dismantled, inoperative, rusted junked or partially dismantled condition on any private property within the city for a period of time in excess of seven consecutive days. The presence of an abandoned, stored, wrecked, dismantled, inoperative, rusted, junked or partially dismantled vehicle or boat or parts thereof on private property is hereby declared a public nuisance which may be abated by removal as such in accordance with the provisions of this article or as is otherwise provided by law.

(b) For purposes of this section, a vehicle or boat shall not be considered to be openly parked, stored or left if completely enclosed in a building or if not visible from the boundary line of any public property or adjoining private property.

(c) This section shall not apply to vehicles or boats parked, stored or left in connection with a properly licensed business operating on a properly zoned location which has as one of its primary functions the sale, repair or storage or motor vehicles, boats or parts thereof.

(Ord. No. 2006-6, § 4, 5-11-2006)

Sec. 18-41. - Presumption of abandonment; presumption of ownership and violation.

It shall be presumed that any motor vehicle, in any condition, which has been left on any private or public property as defined herein within the city in the same or substantially same location for a period of time in excess of seven consecutive days is abandoned. It shall be presumed that any boat, in any condition, which has been left on any public property in the same or substantially same location for a period of time in excess of 90 consecutive days is abandoned. No person in charge or in control of any property in the city, whether owner, tenant, occupant, lessee or otherwise, shall allow or permit any motor vehicle or boat as described herein to remain on public or private property as defined herein in excess of the period of time as provided herein; it shall further be presumed that the owner of any such motor vehicle or boat, in violation of the provisions of this article, parked the vehicle or boat and/or caused it to be parked in violation of this article.

(Ord. No. 2006-6, § 5, 5-11-2006)

Sec. 18-42. - Removal of nuisance on public property.

Whenever it comes to the attention of the ranking law enforcement officer that any nuisance, as defined by this article, exists on public property in the city, he or his designee may, at his discretion, either:

(1) Cause without further notice such motor vehicle or boat to be removed to a garage or other place of safety;

(2) Give a notice of removal to the owner of the motor vehicle or boat such as is required in sections 18-43 and 18-44 for nuisances on private property; or

(3) Proceed under section 18-52.

(Ord. No. 2006-6, § 6, 5-11-2006)

Sec. 18-43. - Notice to remove.

Whenever it comes to the attention of the ranking law enforcement officer that any nuisance as defined by this article exists on private property in the city, a notice in writing shall be served upon the occupant of the land where the nuisance exists or in case there is no such occupant, then upon the owner of the property or his agent, or upon notifying any of them of the existence of the nuisance and requesting its removal in the time specified in the notice to remove. The time as specified in the notice to remove shall, at the discretion of the ranking law enforcement officer, provide for removal or abatement of the nuisance in no less than three and no more than 30 days from the owner or the occupant's receipt of the notice. It shall constitute sufficient notice when a copy of the same is posted in a conspicuous place upon the private property upon which the vehicle or boat is located or upon the vehicle or boat itself. The ranking law enforcement officer may grant one or more extensions to the time specified in the notice of removal but in no event shall the time for removal be extended past 60 days from the owner or occupant's receipt of the initial notice.

(Ord. No. 2006-6, § 7, 5-11-2006)

Sec. 18-44. - Contents of notice.

(a) The notice shall contain a request for removal of such nuisance within the time specified within said notice to remove, and the notice shall advise that upon failure to comply with the notice to remove, the city or its designee shall undertake such removal and that the cost of removal shall be levied against the owner or occupant of the property and/or the owner of the motor vehicle or boat, and that such vehicle or boat may be disposed of pursuant to this article or other ordinances or law.

(b) Said notice shall also advise the recipient of the right at any time prior to the time specified in the notice to remove, to submit a written request for pre-trial hearing before the city council of the city or its designee for the purposes of contesting the existence of the nuisance as prescribed by this article.

(Ord. No. 2006-6, § 8, 5-11-2006)

Sec. 18-45. - Procedure for pre-removal hearing.

The owner or occupant of the property on which such nuisance is occurring and/or the owner or other interest holder of the motor vehicle or boat constituting such nuisance may, in writing, at any time prior to the time specified in the notice to remove for removal of such nuisance, request a pre-removal hearing before the city council or the city or its designee for the purposes of contesting the existence of the nuisance as prescribed by this article. The hearing shall be held as soon as

practicable after the filing of the request and the persons to whom the notices are directed and/or the persons requesting said hearing shall be advised of the time and place of said hearing at least three days in advance thereof. The hearing may be continued from time to time at the discretion of the city council or its designee as may be proper. At any such hearing the city and the persons requesting the hearing may introduce witnesses and evidence to support their position.

(Ord. No. 2006-6, § 9, 5-11-2006)

Sec. 18-46. - Removal of nuisance after notice to remove.

If a nuisance described in a notice to remove has not been remedied or abated within the time set out in the notice to remove, and if no written request for a hearing has been submitted prior to the time period set out in the notice, or in the event that a notice requesting a hearing is timely filed and a hearing is had, and the existence of the nuisance is affirmed by the city council or its designee, the ranking law enforcement officer or his designee shall have the right to take possession of the vehicle or boat and remove it from the premises. It shall be unlawful for any person to interfere with, hinder or refuse to allow such person or persons to enter upon private property for the purpose of removing a vehicle or boat under the provisions of this article. The ranking law enforcement officer may cause said vehicle or boat to be removed by a designated wrecker service.

(Ord. No. 2006-6, § 10, 5-11-2006)

Sec. 18-47. - Notice of removal.

For every motor vehicle removed by the city under this article, which has an identifiable motor vehicle serial number and/or license number, the ranking law enforcement officer shall, within five days of such removal, give written notice which shall include a complete description of the motor vehicle number and license number to both the secretary of state and the state department of public safety.

(Ord. No. 2006-6, § 11, 5-11-2006)

Sec. 18-48. - Duty of owner.

It shall be the duty of every person who may not know the whereabouts of the vehicle or boat owned by him or to which he may have the right of possession to take notice that such vehicle or boat may be in the custody of the city pursuant to the provisions hereof and that he may inquire of the ranking law enforcement officer or the city clerk's office whether it is in such custody.

(Ord. No. 2006-6, § 12, 5-11-2006)

Sec. 18-49. - Levy of cost; redemption by owner.

(a) The following cost shall be levied against the owner or occupant of the property and/or the owner or entity entitled to possession of the motor vehicle or boat and/or the vehicle or boat:

(1) Actual cost to remove.

(2) Maintenance or storage costs.

(3) Actual cost incurred by the city in giving any notice or advertisement.

(4) An administrative fee of $50.00 for each boat or vehicle removed.

(b) Any owner or other person entitled to possession of a removed vehicle or boat may claim the same at any time before the sale thereof by filing a written claim thereto with the ranking law enforcement officer or his designee, upon a form to be provided. Upon satisfactory presentation of evidence that the claimant is entitled to possession of the vehicle or boat, upon payment of the above costs and upon satisfaction of any additional requirements set out in section 22-286 of the confiscation and sale of discarded, abandoned, junked or stolen personal property ordinance, the vehicle or boat shall be released to the claimant.

(Ord. No. 2006-6, § 13, 5-11-2006)

Sec. 18-50. - Request for post removal hearing; procedure for hearing.

Any owner, lienholder, interest holder or entity who may have the right to possession of a motor vehicle or boat so removed may at any time after removal and prior to ten days before a scheduled sale of the motor vehicle or boat may, in writing, request a hearing with the city council or its designee. Such written request should identify the boat or vehicle, identify the claimant's interest in said boat or vehicle, identify any other known interests holders, owners or entities of said boat or vehicle, briefly state the reasons why claimant believes said boat or vehicle was removed for a cause

not authorized by the provisions of this article and request a hearing to contest the removal and/or sale. The hearing prescribed in this section shall be held as soon as practicable after the filing of the request and the persons requesting said hearing shall be advised of the time and place of said hearing at least three days in advance thereof. At any such hearing the city and the persons requesting such hearing may introduce witnesses and evidence to support their cause. The city may continue the hearing from time to time as may be proper. If, upon the hearing, the claim shall be sustained, the city council shall direct that the vehicle or boat be forthwith released to the claimant without payment of any cost or other charges and the city clerk, ranking law enforcement officer or other designee shall cause said vehicle or boat to be so released. If the complaint shall not be sustained, the city council shall dismiss the same and may assess an administrative cost of $25.00 against the claimant for said hearing to be collected before releasing said vehicle or boat to the claimant in addition to all other charges.

(Ord. No. 2006-6, § 14, 5-11-2006)

Sec. 18-51. - Authority to sell.

The city shall have the right to sell any such motor vehicle or boat so removed under the provisions of this chapter.

(Ord. No. 2006-6, § 15, 5-11-2006)

Sec. 18-52. - Penalty.

In addition to the right or removal and the imposition of cost and administrative fees it is hereby determined by the city council that the violation of this article is considered a misdemeanor offense and that the prosecution of such offense shall be heard and tried in the municipal court in the same manner as other violations of municipal ordinances of the city as heard and tried. Any person in violation of any provision of this article shall, upon conviction, be deemed guilty of a misdemeanor and shall be punished as follows:

(1) When a police officer or other law enforcement observes or has probable cause to believe that a violation of this article has been committed, he shall issue a written non-traffic citation to the violator and allow the violator to sign a personal recognizance appearance bond.

(2) Upon a conviction of an initial violation of this article within any 12-month period, a violator shall be punished by a fine of $75.00.

(3) Upon a second conviction of a violation of this article within any 12-month period of receiving an initial citation, a violator shall be punished by a fine of

$150.00.

(4) Upon a third conviction of a violation of this article within any 12-month period of receiving an initial warning citation, a violator shall be punished by a fine of $500.00.

(Ord. No. 2006-6, § 16, 5-11-2006)

Sec. 18-53. - Limited right of entry upon public or private property.

Members of the police department of the city and other city officials shall have the limited right to enter upon public or private property with probable cause to gather information to properly identify the owner of the vehicle or boat alleged to be in violation of this article and/or the occupant or owner of the property upon which the vehicle or boat is located. The municipal court of the city shall have authority to issue all orders necessary to enforce such article.

(Ord. No. 2006-6, § 17, 5-11-2006)

RESOLUTION NUMBER: 2002-_____ From: Mayor Gary Richardson [midfieldmayor@bellsouth.net]
Sent: Tuesday, September 25, 2007 4:38 PM
To: pettwaycityhall@bellsouth.net
Subject: Littering Nuisance Ordinance 2007-4

City of Midfield

ORDINANCE NUMBER: 2007-4

AN ORDINANCE ESTABLISHING AND CREATING A "LITTERING NUISANCE" AND PROVIDING FOR THE ABATEMENT OF ANY SUCH NUISANCE

WHEREAS, the Midfield City Council finds and determines that an unsightly "mess" and public health and safety hazard results from the unauthorized deposit of Household, Industrial or Commercial Goods or Items upon Public or Private Property located in the City; and

WHEREAS, the Midfield City Council further finds and determines that such deposit of Goods or Items, for more than seventy-two (72) hours, creates and Offensive Condition and constitutes a "Littering Nuisance" that should be abated by the City, in order to protect the values of surrounding Properties, in order to preserve the appearance and aesthetics of surrounding Properties, and in order to deter and minimize the likelihood that vermin will gather upon or infest said Property.

BE IT THEREFORE RESOLVED by the Midfield City Council as follows:

SECTION 1. ESTABLISHMENT AND DECLARATION OF LITTERING NUISANCE:
It is hereby established and declared that a Littering Nuisance shall be created when any Person shall place upon and/or allow to remain upon Property located in the City of Midfield, Household, Industrial, Commercial Goods or Furnishings, and other Items to remain on Private or Public Property, for longer than seventy-two (72) hours.

SECTION 2. PROHIBITION. It shall unlawful for any Person—without regard to whether said Person is an "Owner" of Property in the City of Midfield—or for the Owner, Care Taker or Possessor of Real Property located in the City of Midfield to place upon and allow to remain upon Property located in the City of Midfield, Household or Commercial Goods or Furnishings, and other Items to remain on Private or Public Property, for longer than seventy-two (72) hours after "Notice of Violation" has been duly issued and given and served.

SECTION 3. DEFINITIONS. For the purpose of interpreting and enforcing this Ordinance, the following words and terms shall have the meanings indicated below:

1. Owner of Real Property shall be any person, including a Landlord, who holds a Deed to either the entire Title of land in question, or who holds any portion thereof, as is established by the records of the Office of the Jefferson County, Alabama Tax Assessor. Owner, as used herein, may refer either to an Owner, as established by Deed or Mortgage; to a lawfully authorized Care Taker of land; or to a lawfully authorized Possessor of land;

2. Care Taker shall be any person given charge to carry out duties in, on, or regarding land in question, if not an Owner or Possessor;

3. Possessor shall be any person, including a Tenant, who is entitled by law to possess or rent land in question. Lawful possession shall be determined by Records that may be available in the Office of the Jefferson County Tax Assessor or the Office of the Jefferson County Probate Court;

4. Household Goods and Furnishings shall mean those Items which are commonly found in Homes or Residential Properties, including but not limited to:

(a) Clothing;
(b) Appliances (Stoves, Refrigerators, Washers and Dryers, etc.);
(c) Sofas and Love Seats, Futons, etc.;
(d) Chairs, Tables, Chest of Drawers, etc.;
(e) Toys;
(f) Tools, Tool Boxes, Tool Implements, etc.; and
(g) Packing Crates, Boxes, etc.
(h) Newspapers, Magazines, etc.

5. Industrial or Commercial Goods or Furnishings shall mean those Items, Machines, Tools, or other Implements of a particular Industrial or Commercial Trade or Business that are commonly used in said particular Trade or Business;

6. Private Property shall mean any Property in the City of Midfield that is not owned by the City of Midfield, the Midfield School Board or by any other independently existing Governmental Entity situated in and affiliated with the City of Midfield;

7. Public Property Private Property shall mean any Property in the City of Midfield that is owned by the City of Midfield, the Midfield School Board or by any other independently existing Governmental Entity situated in and affiliated with the City of Midfield;

8. Offending Items, Offending Property or Offending Conditions shall mean any condition or thing existing or placed upon a Property which causes an "Owner" or Property to be in Violation of this Ordinance;

9. Person shall include, but not be limited to refer to any reference herein to: any Individual—whether or not a Representative of a Company, including an "Owner", as defined hereunder—who shall deposit Offensive Items upon Private or Public Property or who shall cause to exist upon Private or Public Property an Offensive Condition; and

10. City shall refer to "The City of Midfield".

SECTION 4. VIOLATIONS AND NOTICE OF VIOLATION.

Where the City shall have determined that an Act prohibited under Sections "1" and "2", above, has been occurred, the City shall issue to the Person or to the Owner, Care Taker and/or Possessor of affected Property located in the City of Midfield a "Notice of Violation".
Action may not be taken against any particular Person or "Owner", concerning any Violation established herein, until and unless:

a). An affected Person or Owner has been served with Notice of the Violation and given an opportunity (72 hours following Service) to remove any offensive Items from his or her Property.

(b). Notice of Violation may be served upon an "Owner" or Person by Certified Mail, Return Receipt Requested, or by Personal Service, with a "Certificate of Service" signed by both the Server and the Owner or Person.

(c). Notice has been served as of the Date shown on a Certified Mail Receipt on or the Date confirmed by the Server on the "Certificate of Service".

SECTION 5. VIOLATION UPON PUBLIC PROPERTY.

(a). The City shall be authorized to immediately enter upon its own Property for the purpose removing Offending Items or Offending Conditions.

(b). If the City shall determine who placed upon its Property any particular Offensive Items or who created any particular Offending Conditions upon its Right-of-Ways, in its Roads and Streets, or upon/in any other Public Property, the City shall cite such Person, as provided herein.

(c). Due Process and Opportunity to Defend and Be Heard. If any Person cited hereunder shall refuse to accept a Certified Mail Receipt or refuses to sign a "Certificate of Service", such fact shall be noted in the City's file on this matter and further proceedings may be made against the Owner by citing the Person with a Non-Traffic Citation and forwarding the matter to the Midfield Municipal Court for prosecution, applying the range of Penalties and Sentence provided herein.

SECTION 6. VIOLATION UPON PRIVATE PROPERTY.

(a). Service and Acknowledgment of Service. Service and Acknowledgment of Service, prior to Entry onto or upon Private Property, is Required, in the absence of prior Court Authorization to enter such Property for the purpose of abating a Littering Nuisance. The City shall only be authorized to enter upon Private Property after Notice has been duly issued and served, as provided herein, that being 72 hours following duly served and acknowledged Notice of Violation.

(b). Due Process and Opportunity to Defend and Be Heard. If any Person or "Owner" cited hereunder cannot be located for Service of the "Notice of Violation" or if an affected Person or "Owner" shall refuse to accept attempted Service by Certified Mail Receipt or shall refuse to sign a "Certificate of Service", such fact shall be noted in the City's Record for this matter and further proceedings may be made against an affected Person, "Owner" or Property by filing a Nuisance Petition, pursuant to Section 6-5-120 of the Code of Alabama (1975), as amended, with the Bessemer Division of the Jefferson County Circuit Court seeking to enter upon the Private Property for the purpose of abating a Littering Nuisance by removing the Offending Conditions or Items existing or placed on the affected Private Property.

SECTION 7. NOTICE OF VIOLATION AND DOCUMENTATION OF VIOLATION.

(a). Contents. Notices of Violation issued by the City of Midfield shall contain, at least, the following information:

(i). Date on which an Offensive Condition existing upon property was reported or the date on which Offensive Items were noted existing upon Property;

(ii). Date of any Notice of Violation Issued;

(iii). Date of Service or Attempted Service of any Notice of Violation;

(iv). The Name and Position of the Person authorized to serve any particular Notice of Violation on behalf of the City;

(v). The Street Address of the Property on which Offending Items or Conditions were noted by the City;

(vi). A Complete and Detailed Description of each and every Item, Good or Condition that has created a Nui sance upon any particular Property located in the City of Midfield.

** Provided that, if the materials causing a Littering Nuisance are in such a condition that a description of individual items cannot reasonably be given, the City Official making the Report for the Nuisance Complaint shall give such Description as shall be feasible and reasonable.

**In such case, the City Official making the Report for the Nuisance Complaint shall include in his/her Report the inability to give more specific Details and the reason for such inability.

(vii). Reference to this Ordinance as the basis for issuance to any particular "Owner" or Person a "Notice of Violation".

(b). Documentation of Violation Of Which Notice is Given.

(i). A thorough, written Report shall be made of any Offending Conditions, Items or Goods existing upon Property, which have cause any particular Property to be in violation of this "Littering Nuisance" Ordinance;

(ii). Pictures that clearly reflect the location of the Property, the Property Address—if visible—and the Offend ing Conditions or Offending Items existing upon any particular Property cited as being in violation of this "Litter ing Nuisance"

(iii). The Names and Addresses of any Witnesses or Complainants concerning the Offending Conditions existing upon any particular Property cited as being in violation of this "Littering Nuisance" Ordinance.

SECTION 8. PENALTIES FOR NUISANCE AND ORDINANCE VIOLATION:

Any Person who knowingly violates this "Littering Nuisance" Ordinance and who is convicted of or held liable for violating said Ordinance—by either the Jefferson County Circuit Court or by the Midfield Municipal Court, whichever Authority may have jurisdiction over any given Littering Nuisance. Charge may be sentenced to a Jail Term of a maximum of six (6) months and a Fine up to Five Hundred Dollars ($ 500.00), at the discretion of the Judge hearing the Charge.

SECTION 9. SEVERABILITY. The Provisions of this Ordinance are hereby deemed to be "severable". If any Section, Subsection, Sentence, Clause, Phrase or Portion of this Ordinance is—for any reason—held invalid or unconstitutional, by any Court of competent jurisdiction—such Portion shall be deemed a separate, distinct and independent Provision and such adverse Judicial Holding shall not affect the validity of the remaining, unaffected Provisions hereof.

SECTION 10. CUMULATIVE. The Provisions of this Ordinance are hereby deemed "cumulative", and are in addition to any other Procedure which may presently be authorized by law to permit the accomplishment of the Objectives herein stated.

SECTION 11. EFFECTIVE DATE. This Ordinance shall take effect Sixty (60) Days following its Adoption and Publication by Posting at Three (3) Locations within the Corporate Limits of the City of Midfield.

DONE and ADOPTED on this _____ Day of _____ 2007.

ATTEST:

_____

CEDRIC M. BROWN, CITY CLERK

APPROVED AND TRANSMITTED:

_____

GARY R. RICHARDSON, MAYOR

CERTIFICATE OF THE CITY CLERK

I, _____, City Clerk of the City of Midfield, Alabama, for the sole purpose of administering implementing the above and foregoing Ordinance, is a true and correct copy of Ordinance 2007-4___, adopted and approved by the City Council of the City of Midfield, Alabama at its _____ Meeting held on the _____ day of _____ 2007 as same is represented in the Recorded Minutes.

Moreover, I hereby certify that the above and foregoing Ordinance was published by Posting same at the following three (3), or more, locations: Midfield City Hall, the Midfield Library, and the Midfield Post Office.

Certified and acknowledged on this _____ day of _____ 2007.

_____

City Clerk

2011

Guidelines and Standard Operating Procedures

Chapter 1

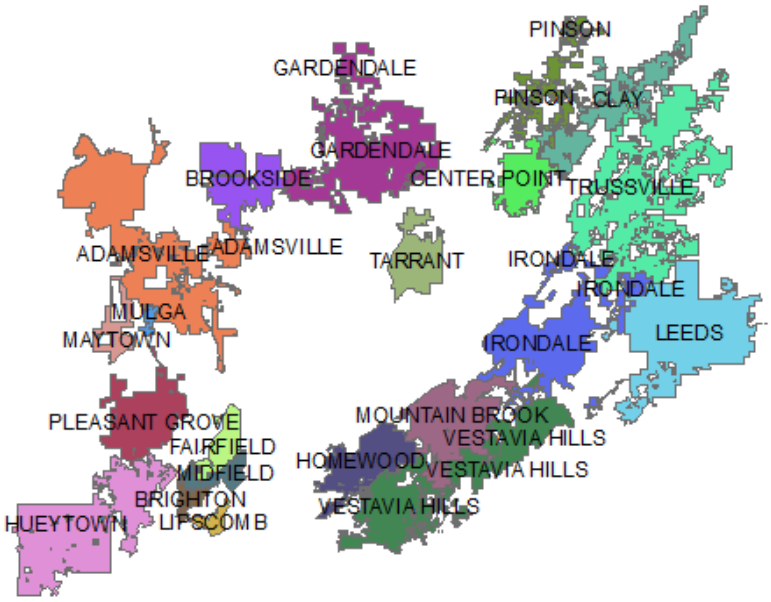
I. INTRODUCTION

The Introduction section describes the regulatory basis, overall organization, and intended audience of the Manual.

2.1 BASIS FOR THE MANUAL

In October 2001, The Alabama Department of Management (ADEM) in accordance with the Environmental Protection Agency (EPA) issued a National Pollutant Discharge Elimination System (NPDES) for stormwater discharges from Municipal Separate Storm Sewer Systems (MS4s). The 21 municipalities compromising the Storm Water Management Authority, Inc became subject to stormwater Phase I regulations based on their designation as high-density urbanized areas according to the 2000 US Census. See Figure 1-1 for a map of the regulated municipalities.

Figure 1-1: Storm Water Management Authority, Inc Municipalities



The regulation specifies that a new general permit be issued by ADEM on a revolving five year basis. The General permit is valid until the new permit is issued and requires each municipality to develop a five year plan to:

> *"..(R)educe the discharge of pollutants from the MS4 to the maximum extent practicable; protect water quality, and satisfy the water quality requirements of the Clean Water Act and state water quality standards."*

The 21 municipalities decided to best meet the goals of the permit that a uniform organization, Storm Water Management Authority, Inc, Inc. (Storm Water), would need to be formed. In September 2009, the members of Storm Water contracted with the Jefferson County Department of Health to perform certain stormwater duties for each municipality. The municipalities incorporated into Storm Water before this Manual did not have written standardized procedures for carrying out municipal operations that pertain to the management of stormwater. This Manual is the creation of such a standardization that provides a commonly accepted framework, technical standards, and guidance on stormwater management measures that control the quantity and quality of stormwater produced from common municipal activities. This Manual will aid in helping a communities' Illicit Discharge Detection and Elimination (IDDE) program and provide a basis for future employee training

This manual will not only provide assistance to municipalities to meet the Stormwater Phase I regulations, but encourages them to use targeted best management practices (BMPs) within the watershed with the long-term goal of consistent application by all regulated entities within the watershed. The Manual of Guidelines and Standard Operating Procedures will help promote improvement in the water quality of Jefferson County's lakes, ponds, streams, and rivers.

2.2 OBJECTIVES OF THE MANUAL

The specific objectives of the Manual are to

- Provide a uniform set of technical standards and guidance on stormwater management measures that will control both the quantity and quality of stormwater produced by municipal activities, new development, redevelopment, and post-construction;
- Assist municipalities in meeting Stormwater Phase I requirements;

- Encourage the use of uniform BMP strategies with the long term goal of consistent application by all regulated entities within the watershed;
- Encourage municipal cost-savings through proper and timely maintenance of stormwater systems; and
- Promote behavior that will improve the water quality throughout Jefferson County

2.3 CONTENT OF THE MANUAL

The content of this Manual is based primarily on the select requirements of the Stormwater Phase I program. The five year plan for each community must address the following control measures:

1. Public Education and Outreach on Stormwater Impacts
2. Public Involvement and Participation
3. Illicit Discharge Detection and Elimination (IDDE)
4. Industrial Inspection Program
5. Construction Site Stormwater Runoff Control
6. Post-Construction Stormwater Management in New Development and Redevelopment
7. Pollution Prevention/Good Housekeeping for municipal operations
8. Promotion of Green Development
9. Roadway Procedures
10. Pesticide, Herbicide, and Fertilizer Application
11. Flood Control Projects
12. Spill Prevention and Response

This Manual addresses components for two of the minimum control measures, Illicit Discharge Detection and Elimination and Pollution Prevention/Good Housekeeping, as follows:

Illicit Discharge Detection and Elimination (IDDE) – This Manual describes the procedures that are used to develop the IDDE program for the MS4s in the 21 municipalities covered under the permit. The program is based on the specific needs of each municipality and the watershed it falls within. This Manual offers the outline of the steps used by JCDH to develop an overall IDDE program that is implemented by each municipality. The basic steps currently underway by JCDH are: 1) Location of priority areas likely to have illicit discharges 2) Mapping of all storm drain systems 3) implementing an illicit discharge detection program through dry screening and outfall monitoring 4) Developing uniform procedure to trace sources of illicit discharging 5) Developing

procedures to remove sources, and 6) Evaluating overall IDDE program effectiveness. This Manual provides information on each of the six steps currently being deployed by JCDH, and how they result in an effective IDDE program that fulfills the intent of the General Permit.

Pollution Prevention/Good Housekeeping for Municipal Operations – This Manual provides the Program Manager and municipal staff with the resources and technical references to aid Jefferson County Department of Health and Storm Water Management Authority, Inc in implementing their own Pollution Prevention/Good Housekeeping program. The General Permit requires the following Pollution Prevention/Good Housekeeping components as part of the overall plan:

a) *A program with a goal of preventing and/or reducing pollutant runoff from municipal operations. The program will include employee training through Jefferson County Department of Health in cooperation with the Storm Water Management Authority, Inc.*
b) *Maintenance activities for the following: parks and open spaces (area such as public golf courses and athletic fields); fleet maintenance, building maintenance; new construction and land disturbance; roadway drainage system maintenance and storm sewer maintenance.*
c) *Schedules and records for municipal maintenance activities in paragraph (b) above.*
d) *Inspection procedures and schedules for long term structural controls.*

This approach allows for flexibility in communities that are in the Stormwater Management Authority to develop their own unique programs according to community needs and available resources.

2.4 MANUAL AUDIENCE AND ORGANIZATION

The Stormwater Phase I Program requires the development of new programs as well as training for municipal employees to implement the overall stormwater program during daily activities. For this reason the Manual addresses two distinct types of audiences (1) City Engineers; JCDH personnel; City Officials, and (2) municipal employees, such as public works personnel, who implement the programs on a day-to-day basis.

Chapter 1 will provide an introduction and overview of the Manual. Chapter 2, *Illicit Discharge Detection and Elimination,* presents procedures for City Engineers, JCDH personnel, and City Officials to use in identifying high priority areas, tracing illicit discharges, and

eliminating illicit discharges in a timely manner. Chapter 3, *Pollution Prevention and Good Housekeeping*, provides the general details on the many ways that municipal activities such as vehicle and facilities maintenance may adversely affect stormwater, and presents ways to modify municipal operations to better prevent and reduce stormwater pollution.
Chapter 3 also gives some details on how to develop procedures related to good housekeeping and pollution prevention.

The Appendices are intended for use by "in-the-field" municipal employees. Appendix A contains some guidelines and standard operating procedures (SOPs) employed by Storm Water Management Authority, Inc and JCDH for use in the detection and elimination of illicit discharges. Appendix B contains guidelines, SOPs, and forms to use in applying pollution prevention and good housekeeping techniques during regular work duties.

The guidelines will be divided into three categories to make them easier for all users. These categories are: Always, whenever possible, and Never. Facility Managers are encouraged to keep up with any changes that occur in specific regulatory compliances with any SOPs in this Manual and should contact Storm Water Management Authority, Inc accordingly. Specific training on the guidelines and SOPs will help to reinforce their importance and encourage implementation.

2.5 COMMON STORMWATER POLLUTANTS, SOURCES, AND IMPACTS

Stormwater runoff contains pollutants that can harm human health, degrade water quality and aquatic habitat, impair water recreational activities, and impair ecosystem functions. On its way into our local streams, rivers, and other receiving waterbodies, stormwater runoff accumulates pollutants such as oil, gas, and other hydrocarbons, heavy metals, deicers, pesticides, fine sediment, fertilizers and bacteria(pathogens), all of which cause impairment to water quality. Runoff from fertilized lawns, golf courses, right-of-ways, and city parks can contribute excess nutrients to waterbodies, which can lead to algal blooms and in extreme cases, fish kills events due to low dissolved oxygen levels. Elevated fecal coliform from sewage or other sources can impair water quality and can lead to restrictions on use and enjoyment of natural resources such as fishing and swimming areas. Other stormwater pollutants of concern are toxic contaminants, such as heavy metals, mercury, pesticides, which can come from vehicles, businesses, or from homeowner activities.

All of these pollutants can be dissolved in water and can wash into receiving bodies during storm events. Understanding the sources of these pollutants and the impacts each pollutant has can help identify the priority goals and objectives of your specific municipality. Table 1-1 summarizes common stormwater pollutants, their sources and potential impacts.

TABLE 1-1:
COMMON STORMWATER POLLUTANTS, SOURCES AND IMPACTS

Pollutant	Sources	Impact
Sediment	Construction sites; eroding stream banks and lakeshores; winter sand and salt application; vehicle/boat washing; agricultural sites.	Destruction of plant and fish habitat; transportation of attached oils, nutrients and other pollutants; increased maintenance costs, flooding.
Nutrients (phosphorus, nitrogen)	Fertilizers; malfunctioning septic systems; livestock, bird & pet waste; vehicle/boat washing; grey water; decaying grass and leaves; sewer overflows; leaking trash containers, leaking sewer lines.	Increased potential for nuisance or toxic algal blooms; increased potential for hypoxia/anoxia (low levels of dissolved oxygen which can kill aquatic organisms).
Hydrocarbons (petroleum compounds)	Vehicle and equipment leaks; vehicle and equipment emissions; pesticides; fuel spills; equipment cleaning; improper fuel storage & disposal.	Toxic to humans and aquatic life at low levels.
Heavy Metals	Vehicle brake and tire wear; vehicle/equipment exhaust; batteries; galvanized metal; paint and wood preservatives; batteries; fuels; pesticides; cleaners.	Toxic at low levels; drinking water contamination.
Pathogens (Bacteria)	Livestock, bird and pet wastes; malfunctioning septic systems; sewer overflows; damaged sanitary lines.	Risk to human health leading to closure of shellfish areas and swimming areas; drinking water contamination.

USEPA defines an illicit discharge as any discharge to an MS4 that is not composed entirely of stormwater or the allowable non-stormwater discharges such as water from fire fighting activities, infiltrating groundwater, etc.. (See list below).

Allowable Non-Stormwater Discharges

1. Water line flushing
2. Landscape irrigation
3. Diverted stream flows
4. Rising ground waters
5. Uncontaminated ground water infiltration (as defined in 40 CFR 35.2005 (20))
6. Uncontaminated pumped ground water
7. Discharge from potable water source
8. Foundation drains
9. Air conditioning condensation
10. Irrigation water, springs
11. Water from crawl space pumps
12. Footing drains
13. Lawn watering
14. Individual resident car washing
15. Flows from riparian habitats and wetlands
16. Dechlorinated swimming pool discharges
17. Street wash water
18. Residential building wash waters, without detergents

Chapter 2

II. ILLICIT DISCHARGE DETECTION AND ELIMINATION

In our communities, the municipal separate storm drain systems discharge to receiving waterbodies without treatment. Therefore, it is particularly important that only stormwater is discharged and to ensure that illicit discharges are eliminated from the system. The General Permit requires that an effective IDDE program be developed by the regulated municipalities. The use of SOPs by JCDH and Storm Water Management Authority, Inc will allow for a unified approach to formulating an effective IDDE program. The Center for Watershed Protection's (CWP) *Illicit Discharge Detection and Elimination- A Guidance Manual for Program Development and Technical Assessments* (2004) , the New England Interstate Water Pollution Control Commission's (NEIWPCC*) Illicit Discharge Detection and Elimination Manual- A Handbook for Municipalities* (2003) , and *Guidelines and Standard Operating Procedures- Illicit Discharge Detection and Elimination and Pollution Prevention/ Good Housekeeping* were used to develop this chapter.

This chapter provides some procedures that are being employed or deemed necessary to create an effective IDDE program in accordance with the USEPA General Permit. City officials should have a good understanding of the types of illicit discharges that may be encountered and the proper procedures and roles that are deployed by Storm Water Management Authority, Inc, JCDH, and the local municipality to address the problems. Section 2.1 describes various types of illicit discharges that may be encountered throughout Jefferson County. The next sections address additional steps that can be taken or are currently underway to create an effective IDDE program. The subsequent sections will then address additional steps that are being taken by Storm Water Management Authority, Inc, Inc. and JCDH to create an effective IDDE program such as: locating priority areas within Jefferson County (Section 2.2), storm-drain mapping (Section 2.3), detecting illicit discharges (Section 2.4), tracing illicit discharges back to its source (Section 2.5), removing illicit

discharges (Section 2.6), and tracking illicit discharges (Section 2.7). Lastly, Section 2.8 provides an approach to evaluating the overall IDDE program.

2.1 TYPES AND SOURCES OF ILLICIT DISCHARGES

The USEPA defines an illicit discharge as "*any discharge to a regulated small MS4 or to the waters of the State of Alabama that does not consist entirely of stormwater or allowable non-stormwater discharges".* Illicit discharges are often categorized according to frequency, which provides information about the source and helps determine which tracing procedures may be useful in locating the discharge. The following three categories provide a good basis for defining illicit discharges:

1. Transitory illicit discharges are typically single occurrence events resulting from spills, breaks, dumping or accidents. Transitory illicit discharges are often reported to an authority through the JCDH Stormwater Hotline (205) 930-1999, the local municipality, or through a municipal or JCDH employee observation while performing regular duties. Because they are not recurring, they are the most difficult to identify, trace, and remove. The best methods to reduce transitory discharges is through the use of education to the general public, municipal response personnel, tracking of discharge locations, and enforcement of an illicit discharge ordinance.
2. Intermittent illicit discharges occur occasionally over a period of time (several hours per day, or a few days per year). Intermittent discharges can result from legal connections to the storm drain system, such as a legal sump pump connection that is illegally discharging anything other than groundwater. Intermittent discharges can also result from activities such as a drum washing in exterior areas. These types of discharges are more likely to be discovered, and are less difficult to trace and remove, but can still present significant challenges. These discharges can have large or small impacts on waterbodies depending on pollutant content, duration, and the size of the receiving water body.
3. Continuous illicit discharges are typically the result of direct connection from a sanitary sewer, overflow from a malfunctioning septic system, inflow from a connection from a commercial or industrial facility. Continuous illicit discharges are usually easiest to trace and can have substantial pollutant loads. (CWP 2004).

Land use should be a major contributing factor when looking for illicit discharges. Table 2-1 provides a list of conditions and activities that may produce transitory and intermittent discharge, along with associated sources and land use. Table 2-2 lists possible sources of continuous discharges and their associated land use.

TABLE 2-1:
LAND USES, LIKELY SOURCE LOCATIONS AND ACTIVITIES THAT CAN PRODUCE TRANSITORY OR INTERMITTENT ILLICIT

Land Use	Likely Source Locations	Condition or Activity that Produces Discharge
Residential	• Apartments • Multi-family • Single family detached	• Driveway cleaning • Dumping/spills (e.g., leaf litter and RV/boat holding tank effluent) • Equipment/vehicle wash-downs • Septic system maintenance • Swimming pool discharges
Commercial	• Campgrounds/RV parks • Car dealers/rental car companies • Car washes • Commercial laundry/dry cleaning • Gas stations/auto repair shops • Marinas • Nurseries and garden centers	• Building maintenance (power washing) • Dumping/spills • Landscaping/grounds care • Outdoor fluid storage • Parking lot maintenance (power washing) • Vehicle fueling • Vehicle maintenance/repair • Vehicle washing • Wash-down of greasy equipment and grease traps

Industrial	• Auto recyclers • Beverages and brewing • Construction vehicle washouts • Distribution centers • Food processing • Garbage truck washouts • Marinas, boat building and repair • Metal plating operations • Paper and wood products • Petroleum storage and refining • Printing	• Industrial process water or rinse water • Loading and un-loading area wash-downs • Outdoor material storage
Municipal	• Airports • Landfills • Maintenance depots • Municipal fleet storage areas • Ports • Public works yards • Streets and highways • Golf courses • Schools	• Building maintenance (power washing) • Dumping/spills • Landscaping/grounds care • Outdoor fluid storage • Parking lot maintenance (power washing) • Road maintenance • Emergency response • Vehicle fueling • Vehicle maintenance/repair • Vehicle washing • Aircraft deicing

TABLE 2-2:
LAND USES, LIKELY SOURCE LOCATIONS AND ACTIVITIES THAT CAN PRODUCE *CONTINUOUS* ILLICIT DISCHARGES

Land Use	Condition or Activity that Produces Discharge
Residential	• Failed sanitary sewer infiltrating into storm drain • Sanitary sewer connection into storm drain • Failed septic systems discharging to storm drain system
Commercial/Industrial	• Failed sanitary sewer infiltrating into storm drain • Process water connections into storm drain • Sanitary sewer connection into storm drain
Municipal	• Failed sanitary sewer infiltrating into storm drain • Sanitary sewer connection into storm drain

SOURCE (Tables 2-1 and 2-1) : Modified from Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and

Technical Assessments, Center for Watershed Protection, 2004. p.12, Table 2.

The illicit discharge detection system provided by Storm Water Management Authority, Inc, Inc, Inc and JCDH uses these criteria to provide an effective detection and elimination program to address all types of illicit discharges.

2.2 LOCATING PRIORITY AREAS

Section 2.2 provides the methodology for locating priority areas that have a high potential for illicit discharges. Storm Water Management Authority, Inc, Inc and JCDH are continually evaluating/improving this process as changes arise and illicit discharges are removed (described in Section 2.6) This allows for a continuous modeling approach on where illicit discharge detection assets should be placed.

To locate priority areas within our municipalities JCDH is:

1. Continually monitoring watersheds for any substantial changes such as local water quality classifications (303 d and various others) by using current water quality monitoring for trending data. This helps divide the watershed into discrete areas that can obtain different priority levels.
2. Gathering and evaluating available information that provide clues as to where in the community illicit discharges might be found (e.g. older neighborhoods, industrial parks, and gentrified neighborhoods). This is done by taking data from ADEM issued NPDES permits, Sanitary Sewer Overflows, Land usage, and outfall quantity and type and plotting them using Geographical Information System (GIS) mapping technology. The maps are then examined for areas where concentrations of all these components tend to occur.
3. Using existing information to assess where illicit discharges may be found and what waterbodies are particularly sensitive (e.g. , drinking water sources, areas containing unique biodiversity, and swimming areas).

The following subsections present further discussion on each of these areas. The mapping and watershed prioritization conducted by Storm Water Management Authority, Inc, Inc and JCDH will help to manage each of these areas.

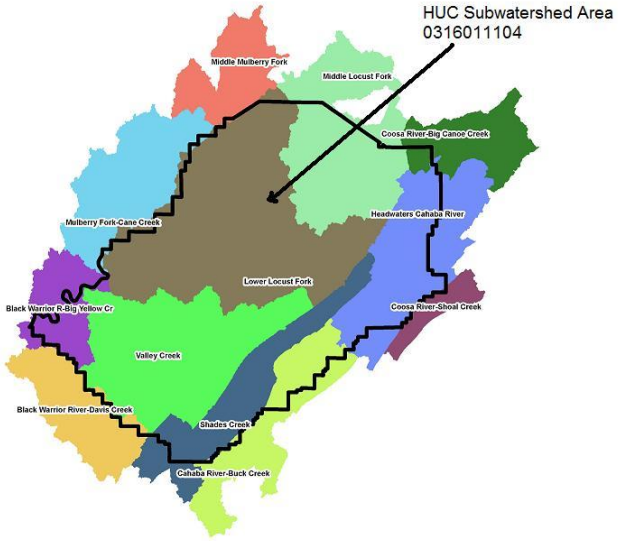
Natural Resource Conservatiion Service (NCRS)

Level	Name	HUC Number
1	Region	2 digit
2	Sub-Region	4 digit
3	Basin	6 digit
4	Sub-basin	8 digit
5	Watershed	10 digit
6	Subwatershed	12 digit
7	Drainage	14 digit
8	Site	16 digit

2.2.1 Indentify Watersheds and Waterbodies

In order to identify priority areas where illicit discharges may occur, a decision must be made as to how to define an "area". The Center for Watershed Protection recommends defining watersheds for individual waterbodies. The National Hydrograph Dataset has a Hydrologic Unit Code (HUC 10) that is used throughout Jefferson County. These 10 digit HUC codes provide an overall framework for delineating the 11 watershed areas within Jefferson County.

Figure 2-1 : Jefferson County HUC 10 Watersheds



This approach is particularly useful when reviewing the 303(d) list of impaired waters. Although wetlands are not taken into the HUC coding program they are taken into account in any water resource planning.

2.2.2 Review Available Information

Priority areas for our overall IDDE program will vary from one municipality to another depending on water quality conditions, land use, etc. The following is a list of resources that is compiled on a continual basis as well as a brief description of the factors used in the prioritization process:

- GIS land use maps - industrial areas with high density development may have a high potential to contain an illicit discharge.

- Locations of previous illicit discharges- areas with historical illicit discharge reports or previous citizen complaints are considered high priority.
- Approximate density of known outfalls per stream mile - areas with a high density of outfalls are considered high priorities.
- Age of infrastructure/development – older areas of the community with known high septic tank failure rates or improper stormwater infrastructure is considered a priority.
- Location of public sanitary sewer/age of sewer/date of separation – Older areas that were put on sewer long ago or have or have areas that are susceptible to pipe erosion are considered a priority.
- Water Quality Information

Some Common Impairments in Jefferson County

- Nutrients
- Siltation
- Pathogens
- Pesticides (Dieldrin)
- Turbidity
- Temperature
- pH
- Oil and grease

Water Quality Classification for the State of Alabama applicable to Jefferson County is as follows:

- Outstanding Alabama Water (OAW)
- Public Water Supply (PWS)
- Swimming and Other Whole Body Water-Contact Sports (S)
- Fish and Wildlife (F&W)
- Limited Warmwater Fishery (LWF)
- Agricultural and Industrial Water Supply (A&I)

For specific information on the classification of specific rivers go to: http://www.epa.gov/waterscience/standards/wqslibrary/al/al_4_11wqs.pdf

ADEM 303(d) list – ADEM and EPA evaluate water quality of Alabama surface waterbodies and generate the 303(d) list of impaired water bodies. The list includes a description of the use that is impaired, the cause of the impairment, and the source. In some cases ADEM has identified illicit discharges or wet weather discharges as the cause. If one of the municipalities has a waterbody that is impaired due to wet weather or illicit discharges it becomes a priority to JCDH and Storm Water Management Authority, Inc, Inc. Impaired waters on the 303(d) list will be subjected to Total Maximum Daily Load (TMDL) standard for the pollutant of concern. This TMDL (when available) is factored into the overall IDDE program. This list is provided to the public at

http://adem.alabama.gov/programs/water/wquality/2010AL303dList.pdf

- Areas that drain to public beaches or drinking water sources – These areas are designated as high priority areas for public health and economic reasons.

It should be noted that the above list is not exhaustive. There may be additional data pertinent to locating priority areas that are constantly evolving. The use of any of these will be based on the personal knowledge and experience of JCDH as well as Storm Water Management Authority, Inc, Inc officials.

2.2.3 Evaluate Illicit Discharge Potential

The understanding of the unique waterbodies spread throughout the municipalities of Jefferson County allows the officials of Storm Water Management Authority, Inc, Inc and JCDH to establish a priority ranking. This will assign values of High Priority, Medium Priority, or Low Priority to each watershed. Table 2-4 provides an example of one of the components employed where criterion is evaluated for each waterbody and assigned an illicit discharge potential (IDP) of 1 for low potential, 2 for medium potential, and 3 for high potential. The scores for each waterbody are then averaged to produce a resultant overall score for the waterbody that will range from 1 (low priority) to 3 (high priority). Figure 2-2 shows a GIS mapping detection system that is the major component along with scoring that allows for priority areas to be assigned to each watershed.

The IDDE prioritization process allows Storm Water Management Authority, Inc, Inc and JCDH to focus their efforts on:

- Areas that need further mapping
- Community-specific detection techniques
- Prioritization of storm drain system maintenance work

TABLE 2-4:
EXAMPLE PRIORITIZATION TABLE USING AVAILABLE INFORMATION

	Land Use	NHDES Category on 303(d) List	Stormwater Outfall Density (# of Outfalls per Stream Mile)	Average Age of Development (years)	Raw IDP Score	Normalized IDP Score**
Area A	Commercial (2)*	Impaired – Other Source (2)*	14 (2)*	40 (2)*	8	2
Area B	Residential (1)	Not Impaired (1)	10 (2)	10 (1)	5	1.25
Area C	Industrial (3)	Impaired – Illicit Discharge or Stormwater (3)	16 (2)	75 (3)	11	2.75
Area D	Residential (1)	Not Impaired (1)	9 (1)	15 (1)	4	1
Area E	Residential (1)	No data available	21 (3)	20 (1)	5	1.67

Notes:

- The number in parentheses is the Illicit Discharge Potential (IDP) "score" (with 3 defined as a high IDP) earned for that area for the category Identified. Basis for assigning scores (based on benchmarks) to assess IDP is defined as follows:

Category Definitions	Land Use	JCDH Category	Stormwater Outfall Density	Average Age of Development
High (3)	Industrial	Impaired-illicit discharge or stormwater	>20	>50
Medium (2)	Commercial	Impaired- other source	10-20	25-50
Low (1)	Residential	Not impaired	<10	<25

- Normalizing the raw IDP scores (by dividing the raw score by the number of screening factors assessed) will produce scores that fall into the Standard scale of 1 to 3 for low to high IDP, respectively.

SOURCE: Modified from Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments, Center for Watershed Protection, 2004, p.53, Table 15.

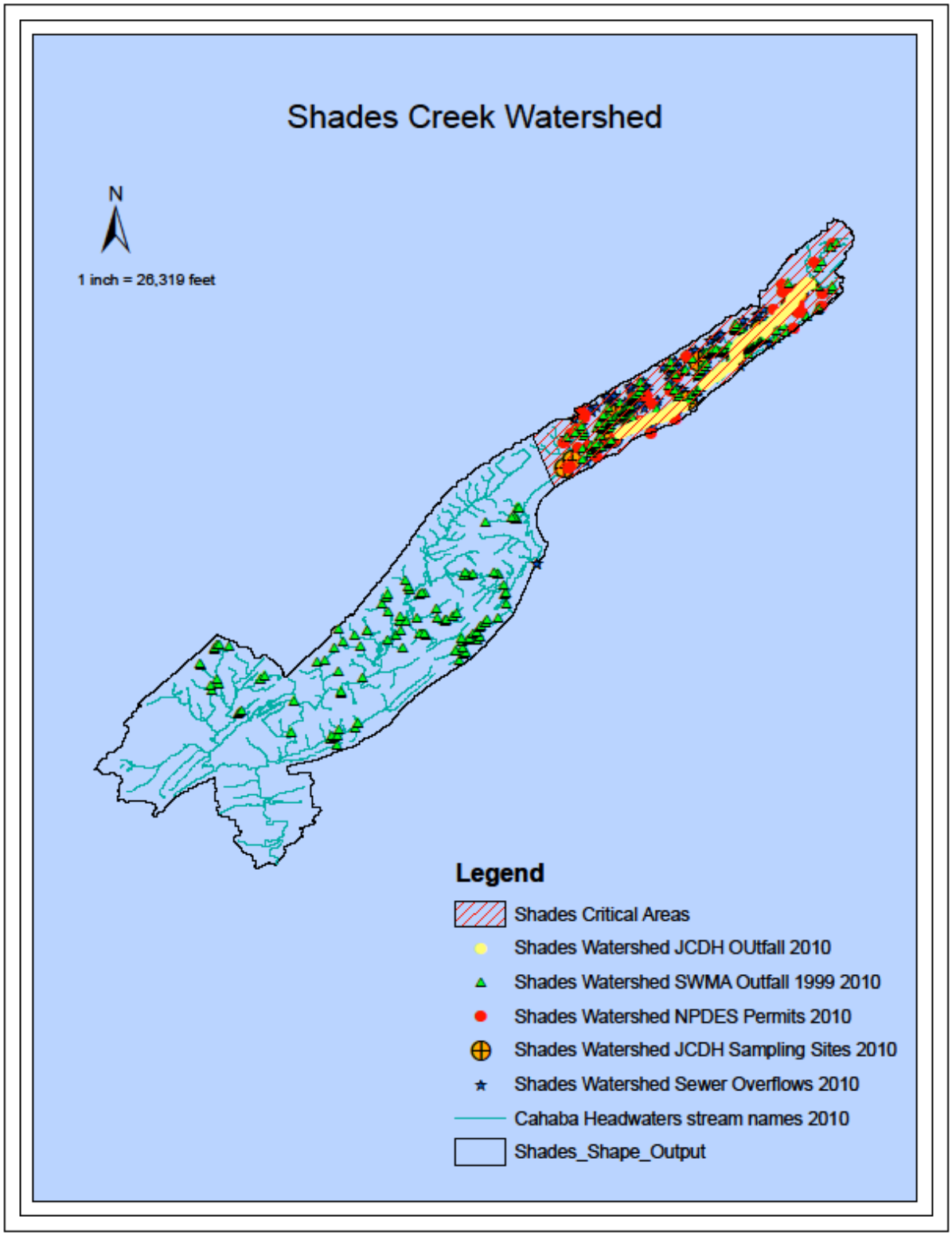


Figure 2-2 Shades Creek Watershed

2.3 MAPPING THE SYSTEM

This section will focus on the development of a comprehensive storm drain map using GIS technology. The strategy used to build the storm drain map by JCDH and Storm Water Management Authority, Inc, Inc is as follows:

1. Review/ Office Preparation:
    a) Existing GIS maps were checked for data in high priority areas first, then medium priority areas, then low priority areas. The maps used came from various sources including Jefferson County, Storm Water Management Authority, Inc, and various state and local agencies. The maps obtained showed land usage, development area patterns, tax maps, as well as old Storm Water Management Authority, Inc priority areas.
    b) A naming and numbering system was developed for outfalls as well as GIS coordinates and pictures of all outfalls were stored in a data dictionary. This will facilitate future inspections and aid in documentation of maintenance.
    c) A system of marking outfalls is being employed to help mark outfalls in the field. Spray paint is being examined but a more permanent system would be ideal.
    d) Equipment was obtained for mapping including all on the list and a few items that are excluded.
    e) A preliminary schedule was developed to show the various steps need to reach completion. This schedule is subject to change based on factors such as weather, creek level, or other factors.
    f) Canoes were put into service for areas that could not be walked. Areas that have thick undergrowth were identified as areas to be walked during the fall or winter months.
    g) Sampling sites and results were taken into account in what areas needed to be first priority.

2. Field verification:
    a) All major waterbodies within a given area of a municipality are being walked and outfall data collected on a weekly basis. The outfalls are identified using a global positioning system (GPS) unit capable of 3-5 m accuracy. Pathfinder® is being used to post-process the points to even greater accuracy than the GPS unit alone can provide. The outfalls are also being assigned a number in the GPS data dictionary as well as a picture taken by the Trimble Juno GPS Unit.
    b) Spray paint is used in the field to identify outfalls.
    c) Dry weather sampling is being conducted in regular intervals at sites designated by JCDH on the major feeder creeks. There are 29 of these sites along the feeder creeks in our municipalities. Dry weather screening on outfalls is also conducted on complaints and whenever an opportunity presents itself.
    d) Dry weather screen is also being conducted on each tributary area twice a year to document any pollutant loadings.

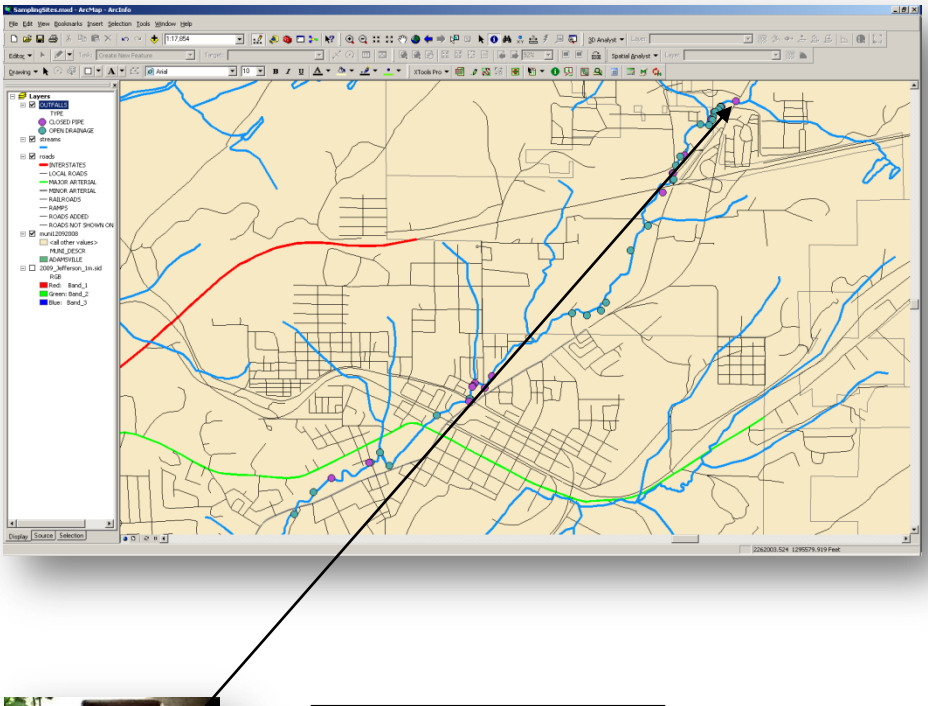
3. Develop Initial GIS Maps: The storm drain systems are being mapped as a larger part of the GIS database for the Storm Water Management Authority, Inc's municipalities. The new data collected has the option to be displayed with any of the existing data sets. JCDH has the ability to display aerial photography, street maps, municipal boundaries, and various other layers as backdrops for relevant GIS maps. Aerial photographs are one of the most interesting background files to use to display information; however, their large file size (20 MB and larger) can make them impractical for all applications. An alternate way to display our mapped information consisted of downloading either United States Geological Survey (USGS) quadrangles, or a set of roads, political boundaries, waterbodies, and watershed information from various other local and governmental sources.

    TIN maps are used by JCDH to formulate 3-dimensional pictures of watersheds and how data can affect the waterbodies therein. The 3-dimensional maps allow water to be traced from source to areas where it will likely be terminate into a major feeder creek.

4. Review and field check other structures (catch basins, culverts, pipes, ditches, drain manholes, etc.):
    a. Aerial photography was first used to identify stormwater detention structures. Field Staff along with local firemen are now in the process of locating various catch basins that are undetectable using aerial photography, a n d taking photographs of pipe locations and sizes. The design details will then be used to get a detailed overview of all structures. A GPS unit with a data logger is being used to take photographs and pinpoint locations.
    b. Quality Assurance/ Quality Control is performed in the office on a daily basis on all data recorded.
    c. All data collected has a unique point type and number assigned.
5. Incorporate field data into GIS and revise as necessary: Once the GPS data files have been converted into GIS layers, and revised maps have been produced; these maps are proofed to assess their accuracy and completeness. The JCDH reviewer documents any additional data requirements, and corrects any errors in the information collected. A relational database helps JCDH and local municipalities establish the connections between pipes, outfalls, and other structures.

The mapping database should be completed in a four year period depending on resources and availability starting on August, 1, 2010. Below in Figure 2-3 is a sample GIS map generated by JCDH.

Figure 2-3: Storm and Outfall GIS map



All storm drains are marked on a GIS database with a picture assigned to each one.

2.4 DETECTION

Dry Weather Discharge Definition

The CWP defines **dry weather** as a 48 hour period with no runoff producing rain fall. JCDH and Storm Water Management Authority, Inc define dry weather as a 48-72 hour period with less than 1/10-inch rainfall.

Illicit discharges can be detected in many ways. Determining which detection methods are appropriate for a municipality can be a relatively simple process. An example of this selection process is provided in Table 2-6. Sheets such as this as well as the following information are used to generate the areas and the frequency of inspections.

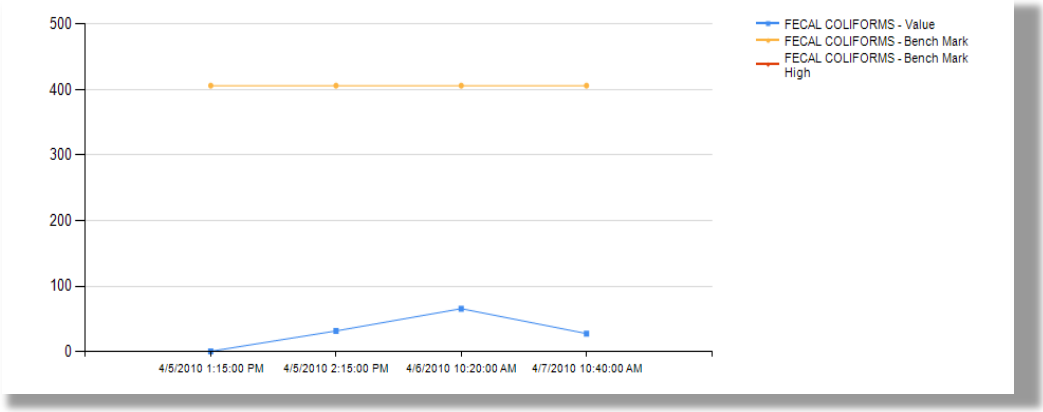
2.4.1 Dry Weather Inspections During Mapping (or initial inspections)

The Dry Weather Inspection Form (see Appendix A) can be used during the mapping to detect the continuous and intermittent discharges. The form is completed whenever evidence of an illicit discharge such as significant flow during dry weather, the presence of raw sewage indicators, staining, or residue, is observed. The discharge is then filed into a complaint form like the one seen below in Figure 2-5.

2.4.2 Long-Term Dry Weather Inspections

Long-term, regular inspections of outfalls are a primary part of JCDH's IDDE program. Regular inspections are not significantly different from inspections conducted during mapping. The major difference is that a crew or inspector will have historical data to work with to make assessments. These inspections are kept in an electronic data base that is analyzed for any higher than expected sample values by using the bench marks in the Figure 2-4 below. The database is then used to direct inspectors on follow-up visits to investigate problem samples. The database also can provide a graph that gives a good baseline above which a sample should not reach. These sites are sampled at least four times a year and can be sampled on an as needed basis.

Figure 2-4: JCDH Sampling Program



Date Range: 7/6/2009 thru 7/6/2010

Site Name	Sample Date	Test Name	Result Value	Result Text	Unit	Weather	Sample Type	Lab Id	Lab Method
VES-CAR-076T	4/5/2010 1:15:00 PM	FECAL COLIFORMS	1	<1.00	COL/100ML	DRY	GRAB	20100 695-01	9222D
VES-CAR-078T	4/5/2010 2:15:00 PM	FECAL COLIFORMS	32	32.0	COL/100ML	DRY	GRAB	20100 696-01	9222D
VES-CAR-079T	4/6/2010 10:20:00 AM	FECAL COLIFORMS	66	66	COL/100ML	DRY	COMP	20100 704-01	9222D
VES-CAR-077T	4/7/2010 10:40:00 AM	FECAL COLIFORMS	28	28	COL/100ML	DRY	GRAB	20100 731-01	9222D

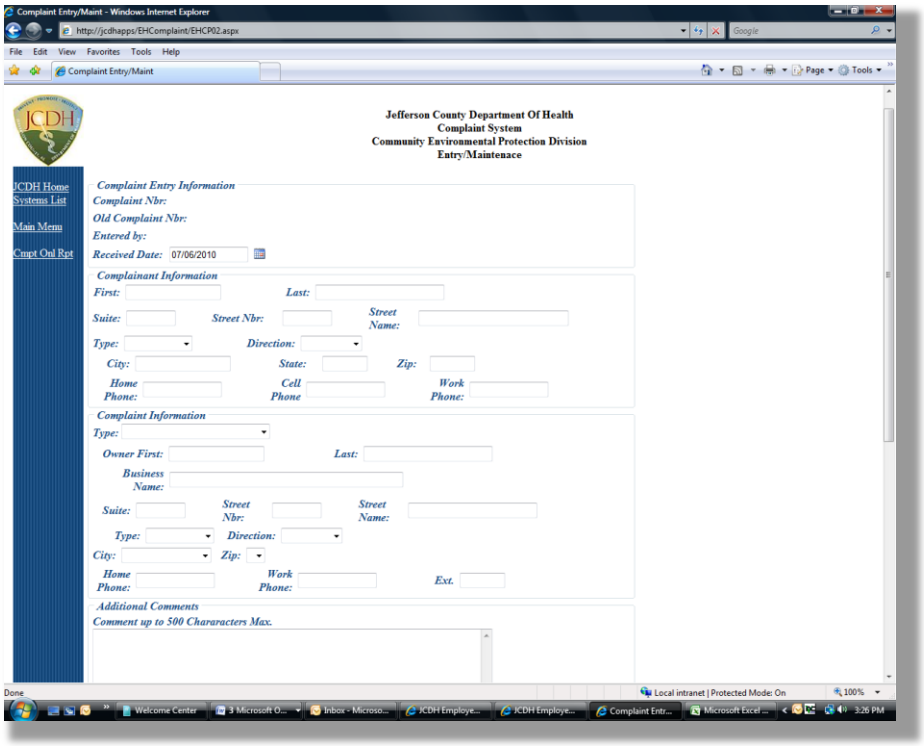
A schedule of long-term inspections for outfalls was then developed. The CWP recommends inspecting all outfalls once, at a minimum, during the first permit cycle in which JCDH is currently inspecting all outfalls and coming up with a grid system to allow for more efficient management of personnel. Further inspections are conducted to supplement the existing JCDH inspections as personnel and funds

allow. Long-term inspections are conducted during dry weather to maximize the potential to observe evidence of illicit discharges and form baseline trends. Winter and summer inspections are conducted at 29 sites to help monitor illicit discharges. The use of interns reduces cost, but to ensure quality of service each intern is trained in safety and identification techniques. If any problems are discovered a procedure is in place to allow for examination by more experienced personnel.

2.5.1 Opportunistic Inspections

Most public works crews conduct their regular duties in and around the storm drain system. A Supervisor may elect to have crews conduct outfall inspections on an informal basis while performing other work, or the supervisor may elect to have crews informally "keep a look out" for illicit discharges. If a city employee observes evidence of an illicit discharge during an informal or non-routine inspection, he/she should collect as much information about the potential illicit discharge as possible then contact his/her supervisor which will relay the information to the JCDH Stormwater hotline at (205)930-1999.A complaint form will then be generated by JCDH containing the information given and will be worked so as to alleviate the problem. A sample complaint form is shown on the next page in Figure 2-4.

Figure 2-4: Sample Complaint Form



Examples of Illicit Discharge Indicators

- Color
- Floatables
- Solids
- Turbidity
- Oil sheen
- Grey mat
- Odor

While it may not be possible for all municipal employees to be able to personally call in an illicit discharges. There should be several other ways they can help alleviate this problem such as:

- The person observing the discharge can provide the information verbally to a dispatcher or the supervisor, who can then call in the complaint to the hotline.
- Personnel can log into JCDH's website to report any complaint concerns; however this option may be a bit more time consuming and immediate needs should be called in.
- A "local" JCDH stormwater program employee can be called to come investigate the complaint on an as needed basis.

It is important to collect as much information as possible at the time of the initial observation due to the likelihood that a discharge may be transitory or intermittent. Initial identification of the likely or potential sources of the discharge is also very important.

2.5.2 Citizen Call-In Inspections

A citizen call-in program is an effective way to identify illicit discharges.

JCDH has a stormwater hotline that is accessible and publicized throughout the Storm Water Management Authority, Inc's municipalities. To maximize the effectiveness of citizen call-ins, the complaint system is filtered by an initial inspection so that each complaint is addressed and identified as valid. Upon validation the complaint is worked within 7-10 business days. The form is filled out with the citizen's information along with all relevant complaint information. There are a few ways through letters and faxes that anonymous complaints can be generated but most complaints must have an original complainant so as to be able to notify someone of the results. These are done by environmental health specialists as well as stormwater employees. The hotline is also accessible through JCDH's website at WWW.JCDH.ORG.

2.5.3 Septic System Inspections

Septic System inspections are conducted through JCDH's Community Environmental Protection Division. The older rural and low density areas that are prone to septic tank failures are identified first and any problem is reported internally to that division to handle. Any failure is then handled in a timely manner and the tank is pumped out until the failure is repaired to prevent leaking into the storm sewer system.

2.5 TRACING ILLICIT DISCHARGES

Once an illicit discharge has been reported or detected through an inspection, the next step is to locate the source. Selection of tracing techniques will depend on the type of illicit discharge detected, information collected during the initial discovery period, observation (whether through an inspection by a municipal employee, JCDH regular inspections, or through a citizen call-in), and the resources/technology available to the municipality. A single technique may be used or several techniques may be used in combination to identify the source of the discharge. Figure 2-5 presents a flow chart for selecting tracing techniques that can be applied to the two categories of potential illicit discharges: (1) transitory or intermittent discharges (where upon returning to the site, no flow is present at the location where the illicit discharge was initially reported), and (2) continuous discharges (where upon returning to the site a continuous flow is present and the flow may be more easily traced to its source). Each of these circumstances is described below:

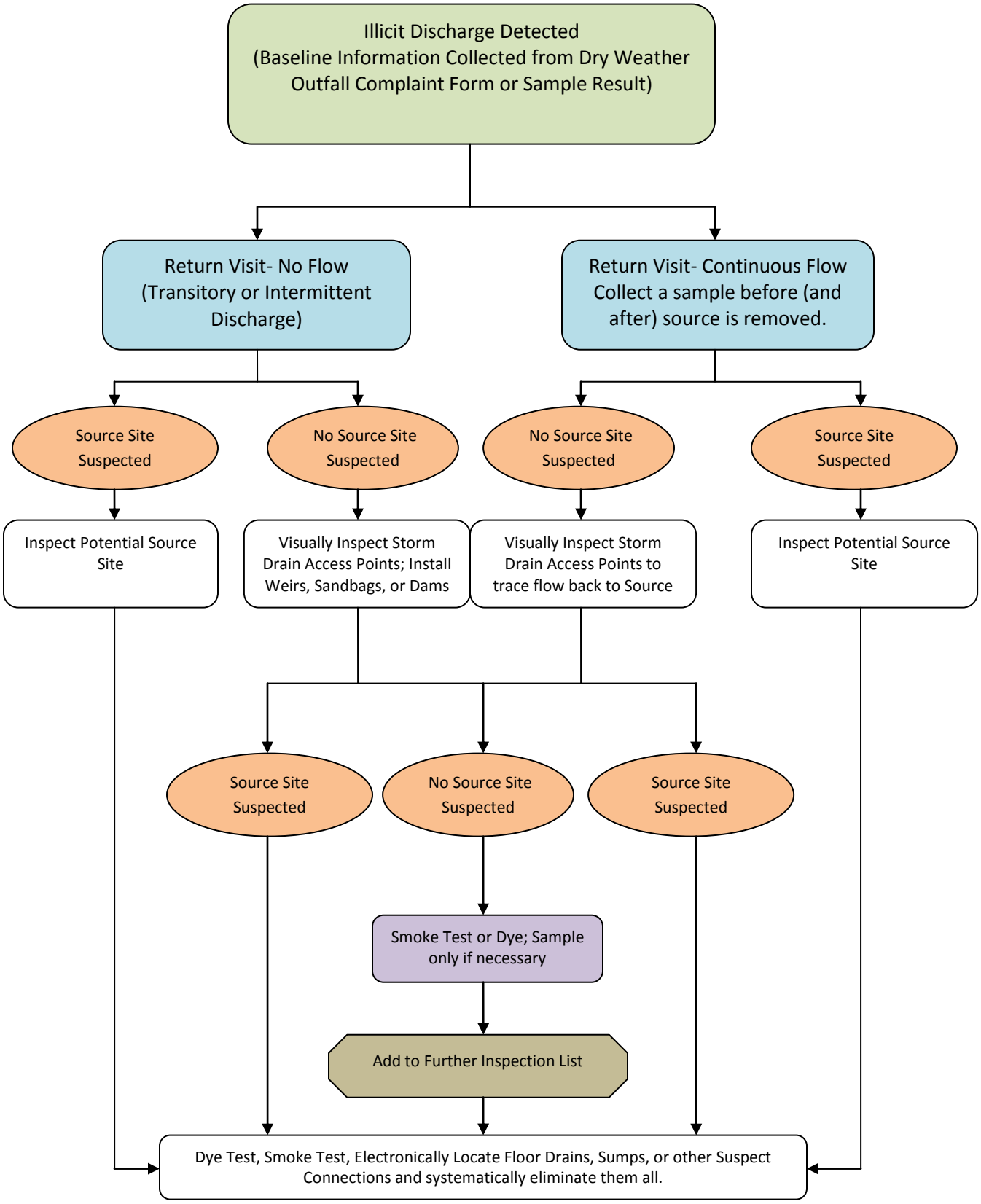
1. Transitory or intermittent discharges: These conditions may occur as a result of an inspection or a citizen complaint. While initial information may have been collected regarding the potential illicit

discharge, a return trip may show that the discharge was either intermittent or transitory (e.g., no flow is present upon return to the site). The investigative techniques used will depend on whether or not a potential source location was identified during the initial observation:

Potential source identified - If a potential source for the illicit discharge was initially identified, steps are taken to investigate the potential source site, such as inspecting the site and storm drain system in the vicinity of the site. If floor drains, sumps, or other suspect discharge locations are observed during this inspection, dye testing, smoke testing, or continuous flow monitoring may be used. These techniques should definitively show whether the suspect site was the source of the illicit discharge.

Potential source not identified - If no source site is suspected, and only the general area of the illicit discharge is known, it may be possible to trace the evidence of the illicit discharge by visual inspection of the storm drain access points. If this catch basin/manhole inspection technique proves to be unsuccessful, some interim steps are taken attempt to capture water from an intermittent discharge. For example, sand bagging, damming or block testing of selected storm drain access points, combined with installation can help reveal the source of the discharge. If these techniques have no positive result (no water pools behind the weir or sand bag), the discharge was likely transitory (one time only), and it may not be possible to determine its origin. In this case, the location of the originally reported illicit discharge is added to the complaint database and tracked for any future incidents. If the original report of the illicit discharge was severe or gross pollution, then smoke testing or televising of the storm drain system may be warranted.

Figure 2-5
Flow Chart for Selecting Tracing Techniques



2. Continuous discharges: Tracing continuous discharges is typically easier than tracing transitory or intermittent discharges. The primary difference between tracing a transitory or intermittent discharge and tracing a continuous discharge is that sandbagging and weirs are not required for a continuous discharge. Visual observation of the system access points should reveal where the flow is coming from. Just as for tracing a transitory or intermittent discharge, if visual inspections fail in identification of the source and the original report was severe or gross pollution, then televising, smoke testing, or sample collection would be warranted. JCDH randomly collects a grab sample for bacterial analysis from any pipe with a significant flow, even if the discharge appears to be clear.

While these conditions may not cover the full extent of discharges that may be discovered, they should provide general guidance on the selection of tracing techniques. The following subsection describes in more detail each of the techniques that can be applied by JCDH, including their advantages and disadvantages.

2.5.1 Tracing Techniques

To select an effective tracing technique, one must have a good understanding of the technique and its limitations. The following is a brief summary of each of the tracing techniques that may be employed by JCDH to locate the source of an illicit discharge:

1. Visual Inspection at manholes/catch basins: This tracing technique is typically used when there is no suspected source site or in residential neighborhoods. It is the most cost effective and efficient method of tracing. Structures are inspected systematically starting at the initial detection location, gradually working upstream through the system. If the inspector is tracking a continuous discharge, the inspections may be relatively easy, and the flow can be traced back to its source. If the inspector is attempting to track a transitory or intermittent discharge, the inspector will make the following observations depending on the information provided from the initial identification: color and clarity of any discharge, staining or deposits on bottom of structure; oil sheen, scum, or foam on any standing fluids in sump of structure; odors, staining or deposits on inlet pipes

and outlet pipes. Depending on what the inspector is looking for, and what they find, they will progressively inspect additional structures until either a potential source is found, or no further evidence is found. If no further evidence is found the inspector may elect to further assess some of the structures by installing sandbags or other damming devices to determine if the discharge recurs. Inspectors are always equipped with proper safety equipment such as proper cone placement, safety vests in traffic areas, confined space entry techniques (if entry is necessary), steel-toed boots, etc.

2. Sampling flowing discharges: As shown in Figure 2-5, samples are collected only in the event a discharge is flowing through the outfall, unless a pollutant is clearly evident in stagnant pools of water or sump water. Table 2-8 lists the parameters that a sample can be analyzed for and provides a general discussion of how the results may be interpreted. This table was taken from the CWP manual (2004) which provides a more detailed discussion of sampling procedures and analysis of results. Sampling and analysis for many of the compounds should be completed by JCDH or other personnel trained in collection, handling, and preservation techniques to ensure accurate data. JCDH recommends collecting a sample when the discharge is initially found and after any source is removed. The sample collected after removing an illicit discharge can indicate if other illicit discharges are present. JCDH also holds the right to test any different chemical or pollutant at the inspector's discretion.

TABLE 2-8:
INDICATOR PARAMETERS USED TO DETECT ILLICIT DISCHARGES

Parameter	Discharge Types it can Detect				Laboratory/Analytical Challenges
	Sewage	Washwater	Tap Water	Industrial or Commercial Liquid Wastes	
Ammonia	●	◙	○	◙	Can change into other nitrogen forms as the flow travels to the outfall.
Boron	◙	◙	○	*	
Chlorine	○	○	○	◙	High chlorine demand in natural waters limits utility to flow with very
Color	◙	◙	○	◙	
Conductivity	◙	◙	○	◙	Ineffective in saline waters, generally highly variable.
Detergents - Surfactants	●	●	○	◙	Reagent is a hazardous waste.
E. coli Enterococci Total Coliform	◙	○	○	○	24-hour wait for results. Need to modify standard monitoring protocols to measure high bacteria concentrations.
Fluoride**	○	○	●	◙	Reagent is a hazardous waste. Exception for communities that do not fluoridate their tap water.
Hardness	◙	◙	◙	◙	
pH	○	◙	○	◙	
Potassium	◙	○	○	●	May need to use two separate analytical techniques, depending on the concentration.
Turbidity	◙	◙	○	◙	

● Can almost always (>80% of samples) distinguish this discharge from clean flow types (e.g., tap water or natural water). For tap water, can distinguish from natural water.

◙ Can sometimes (>50% of samples) distinguish this discharge from clean flow types depending on regional characteristics, or can be helpful in combination with another parameter.

○ Poor indicator. Cannot reliably detect illicit discharges, or cannot detect tap water.

* Data are not available to assess the utility as a single parameter, but when combined with additional parameters (such as detergents, ammonia and potassium), it can almost always distinguish between sewage and washwater.

** Fluoride is a poor indicator when used alone, but can distinguish between washwater and sewage when combined with analysis for detergents, ammonia and potassium.

SOURCE: Modified from *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments*, Center for Watershed Protection, 2004, p. 122, Table 39

3. Sandbagging or damming: Sandbagging and damming is typically only conducted when the discharge flow has ceased since initial detection. Application of this technique is sparsely used and will show whether the discharge is one time only (no water pools behind the sandbag or dam) or intermittent (water pools behind the sandbag). CWP provides the following explanation:

   > This technique involves placement of sandbags or similar barriers such as caulk dams within strategic manholes in the storm drain network to form a temporary dam that collects any intermittent flows that may occur. Any flow collected behind the sandbag is then assessed using visual observations or by indicator sampling. Sandbags are lowered on a rope through the manhole to form a dam along the bottom of the storm drain, taking care not to fully block the pipe (in case it rains before the sandbag is retrieved). Sandbags are typically installed at junctions in the network to eliminate contributing branches from further consideration. If no flow collects behind the sandbag, the upstream pipe network can be ruled out as a source of the intermittent discharge. Sandbags are typically left in place for no more than 48 hours, and should only be installed when dry weather is forecast. Sandbags should not be left in place during a heavy rainstorm. They may cause a blockage in the storm drain, or, they may be washed downstream and lost. The biggest downside to sandbagging and damming is that it requires at least two trips to each manhole (CWP, 2004, p.157).

4. Optical brightener monitoring traps: (JCDH is very limited in employing this specific technique because the effectiveness is yet to be determined) Optical brightener monitoring (OBM) traps can be used to trace intermittent or transitory discharges that result from washwater with detergent. Detergents usually contain optical brighteners that can be detected at high concentrations using this method. However, the traps only detect highly concentrated discharges. The detergent concentration required to be detected by the light is approximately the same as pure washwater from a washing machine. Consequently, OBM traps may be best suited as a simple indicator of the presence or absence of intermittent flow or to detect the most concentrated flows. The traps can be made using easily acquired materials.

The traps contain an absorbent, unbleached cotton pad or fabric swatch contained inside a wire mesh trap or section of small diameter (e.g., 2-inch) PVC pipe. The traps should be anchored to the inside of an outfall at the invert using wire or monofilament that is secured to the pipe itself. Rocks or bricks can be used a temporary weight to hold the trap in place.

JCDH inspectors can retrieve the OBM traps after 24 to 72 hours of dry weather. OBM traps are retrieved before coming into contact with stormwater, which will contaminate the trap or wash it away. When placed under a long wave fluorescent ultraviolet or "black" light, an OBM trap will indicate if it has been exposed to detergents. CWP reports that OBM traps have been used with some success in Massachusetts (Sergeant et al. 1998) and northern Virginia (Waye 2000).

5. Dye testing: (Green Fluorescent used by JCDH) Dye testing is typically conducted when a potential source site has been identified, and the inspector is trying to determine whether the site has floor drains or other locations that connect and discharge to the storm drain system. Permission to access the site must be obtained before dye testing can be conducted. Verbal or written requests by JCDH are both acceptable. The inspector should review available sanitary sewer and storm drain maps before conducting the dye testing. The dye testing procedure consists of two steps: (1) discharging the dye into the suspect location, and (2) opening nearby storm drain and sanitary sewer manhole covers to determine where the dye discharges to. This procedure is fairly effective for confirming direct connections into the storm drain system for short reaches. If a longer pipe network is being evaluated, charcoal packets can be left in selected structures and later collected and analyzed for the presence of the dye. If dye testing porcelain structures, tablets or charcoal should be wrapped in tissue before depositing. When dye testing, the inspector takes into account that each structure (sink, toilet, etc.) should be tested separately. Many times a single utility in a basement may be incorrectly connected to a storm drain line instead of a sanitary line.
6. Televising: (Not in use by JCDH at this time but Jefferson County Environmental Services employs this technique) Televised video inspections are a useful technique when an illicit connection or infiltration from a nearby sanitary sewer is

suspected, but little evidence of the illicit discharge remains behind. Two types of video cameras are available for use: (1) a small camera that can be manually pushed on a stiff cable through storm drains to observe the interior of the piping, or (2) a larger remote operated video camera on treads or wheels that can be guided through storm drains to view the interior of the pipe. Typically the operator of the camera has access to a keyboard or audio voice-over to record significant findings on the videotape that is produced for future review and evaluation.

7. Smoke testing: Smoke testing is a useful technique for tracing intermittent discharges or continuous discharges that have no apparent source site. Smoke is introduced into the storm drain system, and emerges at locations that are connected to the system. Smoke testing works best for short reaches of pipe, or in situations where pipe diameters are too small for video testing.

   The Center for Watershed Protection provides the following discussion on planning and executing smoke testing:

   JCDH must provide notice to the public in the immediate vicinity about the date and purpose of the smoke testing. The smoke used is non-toxic, but can cause respiratory irritation, which can be a problem for some residents. Residents will be notified prior to testing, and should be provided the following information (Hurco Technologies, Inc. 2003):

   - Date testing will occur
   - Reason for smoke testing
   - Precautions they can take to prevent smoke from entering their homes or businesses
   - What they need to do if smoke enters their home or business, and any health concerns associated with the smoke
   - A number residents can call to relay any particular health concerns (e.g., chronic respiratory problems)

   JCDH will also notify local media to get the word out if extensive smoke testing is planned (e.g., television, newspaper, and radio). On the actual day of testing, local fire departments and 911 call centers will be notified to handle any calls from the public.

The basic equipment needed for smoke testing includes manhole safety equipment, a smoke source, smoke blower, and sewer plugs. Two smoke sources can be used for smoke testing. The first is a smoke "bomb," or "candle" that burns at a controlled rate and releases very white smoke visible at relatively low concentrations. Smoke bombs are suspended beneath a blower in a manhole. Candles are available in 30 second to three minute sizes. Once opened, smoke bombs should be kept in a dry location and should be used within one year.

The second smoke source is liquid smoke, which is a petroleum-based product that is injected into the hot exhaust of a blower where it is heated and vaporized. The length of smoke production can vary depending on the length of the pipe being tested. In general, liquid smoke is not as consistently visible and does not travel as far as smoke from bombs.

Smoke blowers provide a high volume of air that forces smoke through the storm drain pipe. Two types of blowers are commonly used: "squirrel cage" blowers and direct-drive propeller blowers. Squirrel cage blowers are large and may weigh more than 100 pounds, but allow the operator to generate more controlled smoke output. Direct-drive propeller blowers are considerably lighter and more compact, which allows for easier transport and positioning.

Three basic steps are involved in smoke testing. First, the storm drain is sealed off by plugging storm drain inlets. Next, the smoke is released and forced by the blower through the storm drain system. Lastly, the inspector looks for any escape of smoke above-ground to find potential leaks. Septic vents on rooftops are clear indicators of cross connections to the storm drain system.

One of three methods can be used to seal off the storm drain. (1) Sandbags can be lowered into place with a rope from the street surface. (2) Alternatively, beach balls that have a diameter slightly larger than the drain can be inserted into the pipe. The beach ball is then placed in a mesh bag with a rope attached to it so it can be secured and retrieved. If the beach ball gets stuck in the pipe, it can simply be punctured, deflated

and removed. (3) Finally, expandable plugs are available, and may be inserted from the ground surface.

Blowers should be set up next to the open manhole after the smoke is started. Only one manhole is tested at a time. If a smoke candle is used, the inspector simply lights the candle, places it in a bucket, and lowers it into the manhole The inspector then watches to see where smoke escapes from the pipe. The two most common situations that indicate an illicit discharge are when smoke is seen rising from internal plumbing fixtures (typically reported by residents) or from sewer vents. Sewer vents extend upward from the sewer lateral to release gas buildup, and are not supposed to be connected to the storm drain system (CWP, 2004, p. 165-166).

2.6 REMOVING ILLICIT CONNECTIONS AND DISCHARGES

Regulated MS4 communities are required to adopt an ordinance or other regulatory mechanism to prohibit illicit discharges to their storm drain system. Storm Water Management Authority, Inc and JCDH operate off the *Erosion and Sedimentation Control Ordinance* that was instated on October 1, 1999. This ordinance allows for enforcement procedures that can be taken in the event of discovery of an illicit discharge. A new ordinance is set to be released within the 2011 calendar year and all illicit discharges should be referred to the most current ordinance. This section describes the procedures that should be taken for illicit discharge removal.

Table 2-9 summarizes the procedures that should be followed to ensure a timely and complete removal depending on the types of illicit discharges that may be discovered, and the various responsible parties. For most cases, the enforcement authority in the Ordinance will coordinate discharge removal.

TABLE 2-9:
NOTIFICATION AND REMOVAL PROCEDURES FOR ILLICIT DISCHARGES INTO THE MUNICIPAL SEPARATE STORM SEWER SYSTEM

Financially Responsible Party	Source Identified	Enforcement Authority	Procedure to Follow
Private Property Owner	One-time illicit discharge (e.g., spill, dumping, etc.)	Ordinance enforcement authority (e.g., City official, JCDH official, or various other agencies)	• Contact Owner • Issue Notice of Violation • Issue fine for larger spills
Private Property Owner	Intermittent or continuous illicit discharge from legal connection	Ordinance enforcement authority (e.g., Code Enforcement Officer)	• Contact Owner • Issue Notice of Violation • Determine schedule for removal • Confirm removal
Private Property Owner	Intermittent or continuous illicit discharge from illegal connection or indirect (e.g., infiltration or failed septic)	Plumbing Inspector, JCDH Community Environmental Protection Division	• Notify plumbing inspector/ • Notify JCDH by complaint • Enforcement Action taken by JCDH
Municipal	Intermittent or continuous illicit discharge from illegal connection or indirect (e.g., failed sewer line)	Ordinance enforcement authority (e.g., City official, JCDH official, or various other agencies)	• Issue work order • Schedule removal • Remove connection • Confirm removal
Exempt 3rd Party (see Section 2.6.4)	Any	USEPA	• Notify exempt third party and USEPA of illicit discharge

The following subsections address the issues of financial responsibility for removal (Section 2.6.1), forms and procedures that can be used in association with issuing a Notice of Violation (NOV) (Section 2.6.2), circumstances in which a municipality can take emergency action by referring directly to JCDH for discharges that are a threat to human health or the environment (Section 2.6.3), and procedures to follow when an illicit discharge from an exempt party is identified (Section 2.6.4).

2.6.1 Financial Responsibility

Once an illicit discharge's source has been identified, the financial responsibility of removing it is determined in the *Erosion and Sedimentation Control Ordinance* adopted by all Storm Water Management Authority, Inc municipalities on October 1, 1999. The following describes three cases that might be encountered:

1) The illicit discharge was a private party dumping into the storm drain system (a transient discharge). In this case, the *Erosion and Sedimentation Control Ordinance Article 7, Section 7.05* would allow for first a Notice of Violation, a Compliance Order, and/ or a Cease and Desist Order to be issued and a fine to be imposed of no less than $100.00 and no more than $500.00 a day or up to 180 days in jail.
2) The illicit discharge originated from a connection to the storm drain system (transient, intermittent, or continuous) that was once allowed. Such as an outdated overflow or anything of the nature. The overflow must be fixed on an as needed basis and appropriate action taken. A Notice of Violation could be issued and a fine could be imposed by JCDH if necessary. All washing machines, septic tanks, gray water generators, etc. are taken off through the Community Environmental Health Division of JCDH.
3) The illicit discharge resulted from an illegal connection (i.e., a connection that violates state plumbing codes). For intermittent or continuous discharges that are the result of an illegal direct connection into the storm drain system, the cost for disconnection will fall to either the property owner of the illegal connection or the municipality, depending on the circumstances of the connection. For example, if the connection was incorrectly applied during a separation project conducted by the municipality, the cost to correct the connection should be borne by the municipality. If the connection was the result of a private contractor working for the resident, the resident would be financially responsible for correcting the connection. Similarly, if the illicit discharge is the result of a failed sanitary sewer line, the party responsible for the failed sanitary sewer line must pay for the correction.

2.6.2 Notice of Violation

For violations of the *Erosion and Sedimentation Control Ordinance*, the Storm Water Management Authority, Inc municipalities issue a Notice of Violation. A Notice of Violation form will be generated by the municipalities and will look similar to the form shown in Appendix A. It

should be noted that the NOV describes a schedule for the removal to be completed, as well as a summary of any agreements between the parties.

2.6.3 Emergency Disconnections

The *Erosion and Sedimentation Control Ordinance* allows for a disconnection to the storm drain system for discharges that present "a threat to the environment or to the health or welfare of persons, or to the storm drain system". Disconnections may include blocking pipes, constructing dams, or taking other measures on public ways or public property to physically block the discharge. The municipal enforcement authority for the ordinance may want to call the Jefferson County Department of Health at (205) 930-1230 or the Jefferson County Emergency Management Authority at (205) 254-2039 when making this determination for disconnection.

2.6.4 Discharges from Exempt Parties

Several categories of facilities are regulated by the USEPA for stormwater discharges under other permits. Because these facilities are already responsible to USEPA authority for stormwater discharges, the municipality can exempt them from the *Erosion and Sedimentation Control Ordinance*. If a municipality encounters an illicit discharge that is suspected or determined to be coming from an exempt party that is regulated under USEPA stormwater regulation, the municipality should notify both the suspected discharger and the enforcement authority for that discharger. The notification can be verbal or in writing. Most municipalities have prior experience working with other enforcement authorities for suspected violations of either state or federal law.

The following is a brief list of parties that are regulated under an alternate stormwater program and are present in the *Erosion and Sedimentation Control Ordinance, Article 4 Exclusions:*

TABLE 2-10: EXAMPLE EXEMPT FACILITIES		
Exempt Facility	**Alternate Regulation They Are Subject To**	**Enforcement Authority**
Alabama Department of Transportation (ALDOT) (in selected urbanized areas)	NPDES General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s), Part V	USEPA
Railroad facilities	NPDES General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s	USEPA
Industrial Facilities with selected SIC codes (See Table 2-11 for a complete list)	Multi Sector General Permit for Industrial Activities	USEPA

As shown in Table 2-9, if a municipality identifies that an illicit discharge has come from one of these facilities, they should notify both the discharger and the enforcement authority verbally or in writing of the activity. Standard Industrial Classification (SIC) codes for NPDES Stormwater Multi-Sector General Permit (MSGP) Industrial Facilities are listed in Table 2-11.

TABLE 2-11:
SIC CODES FOR MSGP INDUSTRIAL ACTIVITIES

Sector Name		SIC Code Listing
Sector A:	**Timber Products**	2411, 2421, 2426, 2429, 2431–2439 (except 2434), 2448, 2449, 2451, 2452, 2491, 2493, 2499
Sector B:	**Paper and Allied Products**	2611, 2621, 2631, 2652–2657, 2671–2679
Sector C:	**Chemical and Allied Products**	2812–2819, 2821–2824, 2833–2836, 2841–2844, 2851, 2861–2869, 2873–2879, 2891–2899, 3952 (limited to list)
Sector D:	**Asphalt Paving and Roofing Materials and Lubricants**	2951, 2952, 2992, 2999
Sector E:	**Glass Clay, Cement, Concrete, and Gypsum Products**	3211, 3221, 3229, 3231, 3241, 3251–3259, 3261–3269, 3271–3275, 3281, 3291, 3292, 3296, 3297, 3299
Sector F:	**Primary Metals**	3312–3317, 3321–3325, 3331–3339, 3341, 3351–3357, 3363–3369, 3398, 3399
Sector G:	**Metal Mining (Ore Mining and Dressing)**	1011, 1021, 1031, 1041, 1044, 1061, 1081, 1094, 1099
Sector H:	**Coal Mines and Coal Mining Related Facilities**	1221–1241
Sector I:	**Oil and Gas Extraction and Refining**	1311, 1321, 1381–1389, 2911
Sector J:	**Mineral Mining and Dressing**	1411, 1422–1429, 1442, 1446, 1455, 1459, 1474–1479, 1481, 1499
Sector K:	**Hazardous Waste Treatment, Storage, or Disposal Facilities**	HZ
Sector L:	**Landfills and Land Application Sites**	LF
Sector M:	**Automobile Salvage Yards**	5015
Sector N:	**Scrap Recycling Facilities**	5093
Sector O:	**Steam Electric Generating Facilities**	SE
Sector P:	**Land Transportation and Warehousing**	4011, 4013, 4111–4173, 4212–4231, 4311, 5171
Sector Q:	**Water Transportation**	4412–4499
Sector R:	**Ship and Boat Building or Repairing Yards**	3731,3732
Sector S:	**Air Transportation**	4512–4581
Sector T:	**Treatment Works**	TW
Sector U:	**Food and Kindred Products**	2011–2015, 2021–2026, 2032, 2041–2048, 2051–2053, 2061–2068, 2074–2079, 2082–2087, 2091–2099, 2111–2141
Sector V:	**Textile Mills, Apparel, and Other Fabric Product Manufacturing, Leather and Leather Products**	2211–2299, 2311–2399, 3131–3199 (except 3111)
Sector W:	**Furniture and Fixtures**	2434, 2511–2599
Sector X:	**Printing and Publishing**	2711–2796
Sector Y:	**Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries.**	3011, 3021, 3052, 3053, 3061, 3069, 3081–3089, 3931, 3942–3949, 3951–3955 (except 3952 facilities as specified in Sector C), 3961, 3965, 3991–3999
Sector Z:	**Leather Tanning and Finishing**	3111
Sector AA:	**Fabricated Metal Products**	3479, 3411–3499 , 3911–3915
Sector AB:	**Transportation Equipment, Industrial or Commercial Machinery**	3511–3599 (except 3571–3579), 3711–3799 (except 3731, 3732)
Sector AC:	**Electronic, Electrical, Photographic, and Optical Goods**	3571–3579, 3612–3699, 3812-3873
Sector AD:	**Non-Classified Facilities**	N/A

2.7 TRACKING ILLICIT DISCHARGES

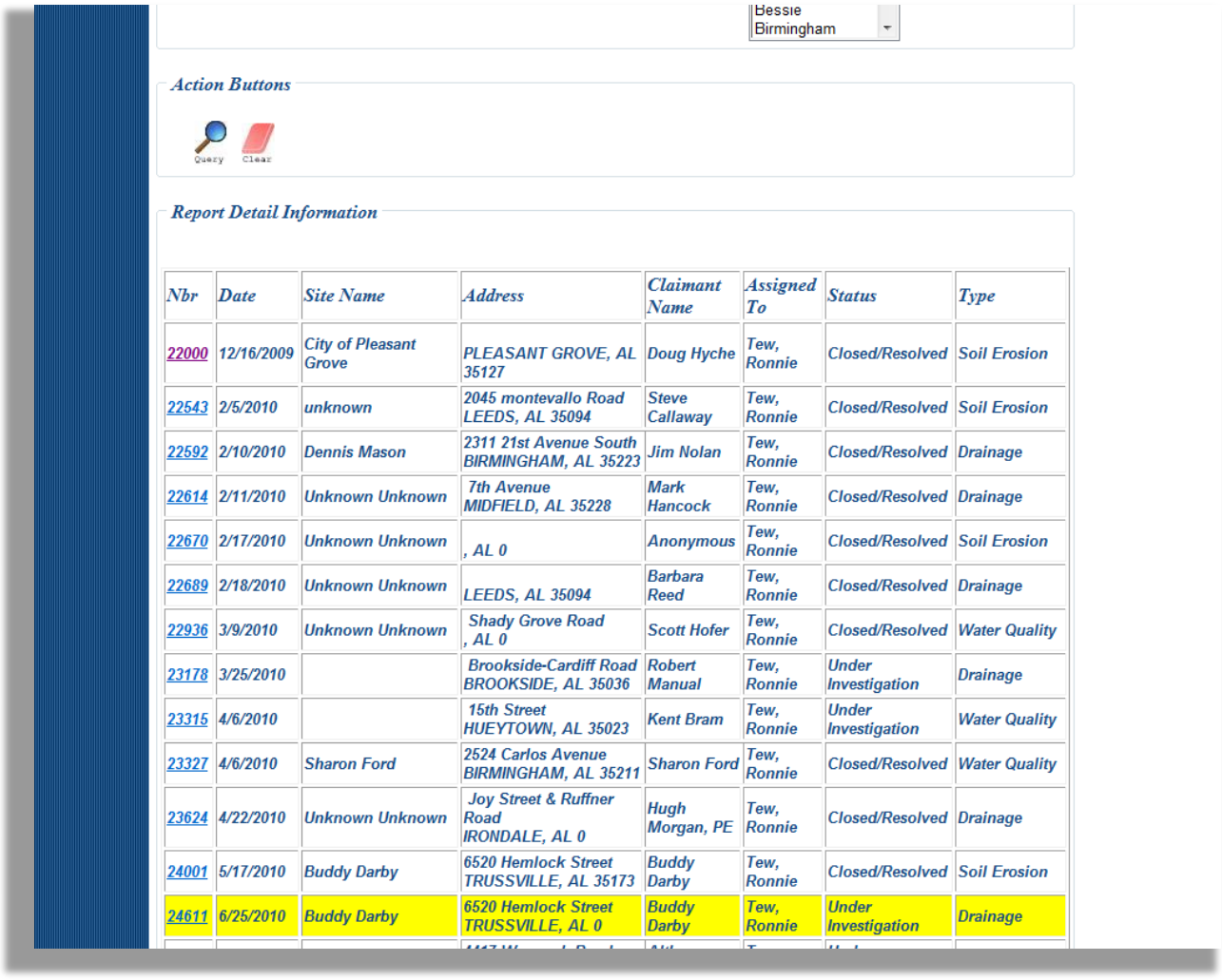
JCDH has developed a long-term stormwater complaint tracking program that can help municipalities better understand the origins of illicit discharges and identify maintenance issues for the storm drain system structures. The complaint tracking program will also facilitate evaluation of the overall IDDE program and will expedite annual reporting. The tracking program is based to address illicit discharge and maintenance issues resulting from the following:

- Citizen's Complaints
- Opportunistic Inspections (such as if an illicit discharge is found while doing outfall monitoring in which JCDH has a self complaint system in place)
- Regular Long Term Inspections (if a sample comes back with high readings any follow-up tests are logged in the complaint system)
- Removal Actions Taken

2.7.1 Electronic Database

A GPS data dictionary has been created that includes all the fields on the Dry Weather Outfall Inspection Form The advantage to this type of tracking program is that the database can be easily linked into GIS. Linking to GIS has allowed mapping of illicit discharge locations, citizen complaint locations, and many other IDDE issues which have assisted greatly in the overall program. Figure 2-12 contains some of the simple attributes that are used in the database. JCDH uses a sequel server database as well for sample technique, results inventory, and an excel spreadsheet for location data.

FIGURE 2-12: STORMWATER PHASE II TRACKING COMPLAINT FORM



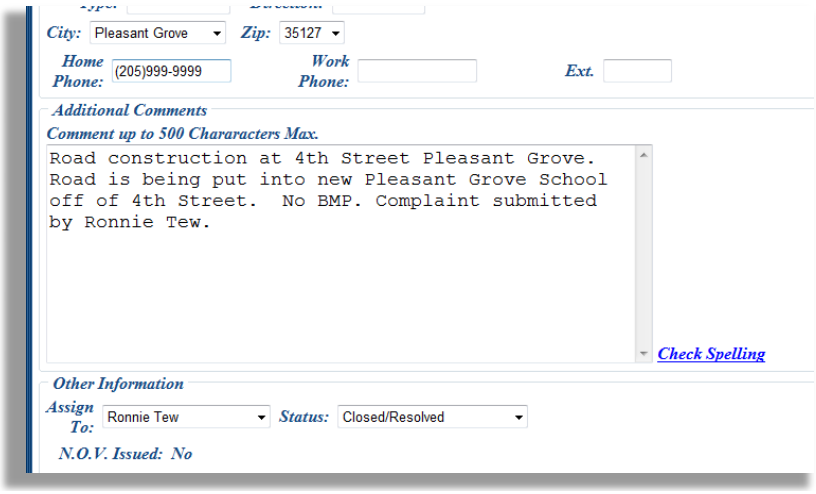
Bessie
Birmingham

Action Buttons

Query Clear

Report Detail Information

Nbr	Date	Site Name	Address	Claimant Name	Assigned To	Status	Type
22000	12/16/2009	City of Pleasant Grove	PLEASANT GROVE, AL 35127	Doug Hyche	Tew, Ronnie	Closed/Resolved	Soil Erosion
22543	2/5/2010	unknown	2045 montevallo Road LEEDS, AL 35094	Steve Callaway	Tew, Ronnie	Closed/Resolved	Soil Erosion
22592	2/10/2010	Dennis Mason	2311 21st Avenue South BIRMINGHAM, AL 35223	Jim Nolan	Tew, Ronnie	Closed/Resolved	Drainage
22614	2/11/2010	Unknown Unknown	7th Avenue MIDFIELD, AL 35228	Mark Hancock	Tew, Ronnie	Closed/Resolved	Drainage
22670	2/17/2010	Unknown Unknown	, AL 0	Anonymous	Tew, Ronnie	Closed/Resolved	Soil Erosion
22689	2/18/2010	Unknown Unknown	LEEDS, AL 35094	Barbara Reed	Tew, Ronnie	Closed/Resolved	Drainage
22936	3/9/2010	Unknown Unknown	Shady Grove Road , AL 0	Scott Hofer	Tew, Ronnie	Closed/Resolved	Water Quality
23178	3/25/2010		Brookside-Cardiff Road BROOKSIDE, AL 35036	Robert Manual	Tew, Ronnie	Under Investigation	Drainage
23315	4/6/2010		15th Street HUEYTOWN, AL 35023	Kent Bram	Tew, Ronnie	Under Investigation	Water Quality
23327	4/6/2010	Sharon Ford	2524 Carlos Avenue BIRMINGHAM, AL 35211	Sharon Ford	Tew, Ronnie	Closed/Resolved	Water Quality
23624	4/22/2010	Unknown Unknown	Joy Street & Ruffner Road IRONDALE, AL 0	Hugh Morgan, PE	Tew, Ronnie	Closed/Resolved	Drainage
24001	5/17/2010	Buddy Darby	6520 Hemlock Street TRUSSVILLE, AL 35173	Buddy Darby	Tew, Ronnie	Closed/Resolved	Soil Erosion
24611	6/25/2010	Buddy Darby	6520 Hemlock Street TRUSSVILLE, AL 0	Buddy Darby	Tew, Ronnie	Under Investigation	Drainage



City: Pleasant Grove Zip: 35127

Home Phone: (205)999-9999 Work Phone: Ext.

Additional Comments

Comment up to 500 Chararacters Max.

Road construction at 4th Street Pleasant Grove. Road is being put into new Pleasant Grove School off of 4th Street. No BMP. Complaint submitted by Ronnie Tew.

Check Spelling

Other Information

Assign To: Ronnie Tew Status: Closed/Resolved

N.O.V. Issued: No

2.8 EVALUATING THE PROGRAM

JCDH evaluates their IDDE program at the end of each year to assess its' effectiveness, efficiency, and to identify where improvements are needed. Table 2-13 is a worksheet that is used at the end of the fiscal cycle to evaluate the following components:

1) Priority Areas: Are the priority areas initially identified still appropriate? Considerations include reviewing the priority worksheet to assess if any changes have occurred since the initial evaluation was completed (such as: Have additional illicit discharges been discovered in any of the areas or is there significant development? Has a new 303(d) list come out naming new waterbodies as impaired?). JCDH also takes into account any negative sample trends in if priority area scopes need to be limited or expanded.
2) Detection Program: Is the detection program effective? Documenting the number of illicit discharges detected by the various detection mechanisms (inspections, citizen call-ins, opportunistic inspections) helps to decide where to allocate resources. This is becoming more extensive as the database at JCDH grows.
3) Tracing Techniques: What tracing techniques were generally used (site inspections, damming, etc)? What tracing techniques were generally effective? In how many instances were visual inspections of the area sufficient to identify the source of the illicit discharge (% effective)? Were there any times the equipment necessary to effectively trace an illicit discharge was not used because it was not available, was too costly to obtain, or not deemed a priority? Documenting the effectiveness of tracing techniques helps to evaluate how efficient the inspector is at the technique and if training is needed on where best to employ the technique.

Although completing an evaluation of the overall IDDE program may be time consuming and labor intensive, its benefits helps to reduce the costs for future inspection and IDDE efforts, which allows us to employ more efforts in other areas of the program. Keeping track of where illicit discharges are likely to occur and what techniques are useful can help lead to an effective identification program between JCDH and Storm Water Management Authority, Inc's municipalities

TABLE 2-13:
IDDE PROGRAM EVALUATION WORKSHEET

Priority Areas [1]	List any factors that have changed since initial priority was set [2]	Recommended Change (Circle) [3]	
A		Leave Priority Same	Re-evaluate
B		Leave Priority Same	Re-evaluate
C		Leave Priority Same	Re-evaluate

Detection Program [1]	# Mapping Inspections [4]		# Longer Term Inspections [4]		# Citizen Complaints [4]		# Opportunistic Inspections [4]	
Priority Areas	Identified	Resolved	Identified	Resolved	Identified	Resolved	Identified	Resolved
A								
B								
C								
Tracing Techniques Used [5]	**Effective**	**Ineffective (Comment below)**	**Effective**	**Ineffective (Comment below)**	**Effective**	**Ineffective (Comment below)**	**Effective**	**Ineffective (Comment below)**
Method:								
Method:								
Method:								

Comments/Recommended Changes [6]

Instructions: This worksheet is for Program Managers to evaluate their IDDE Program.

1. Fill in the names of the priority areas in your municipality.
2. List any factors that have changed since the initial prioritization (i.e. have additional illicit discharges been discovered in these areas, has a new 303(d) list come out naming new waterbodies as impaired, etc.).
3. Circle the applicable recommended change.
4. Fill in the number of illicit discharges identified and subsequently resolved for each detection mechanism used.
5. Fill in the different tracing techniques that were used (visual, sampling, sandbagging, OBM, dye/smoke testing, televising), and check whether they were effective or ineffective for each applicable detection mechanism that they were used for. If the method was ineffective, comment on why it was ineffective and how it could be improved.
6. Note any additional comments or recommended changes.

Chapter 3

III. POLLUTION PREVENTION AND GOOD HOUSEKEEPING

Many municipal activities can result in stormwater pollution if not conducted properly. Activities such as vehicle maintenance, fueling, and landscaping involve handling, storage, and use of chemicals and petroleum products that must be used properly to prevent stormwater from becoming polluted. In addition, construction activities conducted during general maintenance of infrastructure can result in sedimentation and erosion of soil that can be swept by stormwater into the storm drain system or directly into waterbodies.

a) *Develop and implement a program with a goal of preventing and/or reducing pollutant runoff from municipal operations. The program must include an employee training component.*
b) *Include, at a minimum, maintenance activities for the following: parks and open space (areas such as public golf courses and athletic fields); fleet maintenance, building maintenance; new construction and land disturbance; roadway drainage system maintenance, post-construction plans; and stormwater system maintenance.*
c) *Develop schedules for municipal maintenance activities described in paragraph (b) above.*
d) *Develop inspection procedures and schedules for long term structural controls.*

TABLE 3-1: GOOD HOUSEKEEPING/POLLUTION PREVENTION SOPS/ACTIVITY MATRIX				
SOP	**Vehicle/ Equipment Maintenance**	**Facilities Maintenance (including Parks and Open Space)**	**Storm Drain System Maintenance**	**Construction Activities and Other Land Disturbances**
B.1 Catch Basin Cleaning				
B.2 Storm Drain System Repair and Maintenance				
B.3 Erosion and Sediment Control				
B.4 Landscape Design and Management				
B.5 Storage and Disposal of Fertilizer and Pesticide				
B.6 Fertilizing and Turf Health Application				
B.7 Weed and Pest Control Application				
B.8 Mowing and Irrigation				
B.9 Vehicle and Equipment Storage				
B.10 Vehicle and Equipment Washing				
B.11 Vehicle and Equipment Fueling				
B.12 Spill Clean-up				
B.13 Parts Cleaning				
B.14 Spare Parts Storage				
B.15 Alternative Products Use/Storage/Disposal				
B.16 Petroleum and Chemical Disposal				
B.17 Petroleum and Chemical Handling				
B.18 Petroleum and Chemical Storage – Bulk				
B.19 Petroleum and Chemical Storage – Small Quantity				
B.20 Garbage Storage				
B.21 General Facility Housekeeping				
B.22 Floor Drains				
B.23 Painting				
B.24 Street Sweeping				
B.25 Snow Disposal				
B.26 Deicing Material Storage				
B.27 Deicing Material Application				

To address these components, this Chapter is divided into four subsections that describe four major categories of operations completed by each municipality:

- Vehicle/Equipment Maintenance (Section 3.1)
- Facilities Maintenance including parks and open space (Section 3.2)
- Storm Drain System Maintenance (Section 3.3), and
- Construction Activities (Section 3.4)

Each of these four operational areas contains a diverse set of activities, for which SOPs are appropriate. SOPs associated with each of these operational areas are contained in Appendix B. The SOPs outline the management and maintenance procedures that are used to minimize impacts on stormwater. Some of the SOPs apply to more than one operational area. For example, both vehicle maintenance and facilities maintenance require handling, storage, and disposal of petroleum products. Therefore, the SOPs for petroleum handling, storage and disposal in Appendix B address both of these operational areas. Table 3-1 shows the relationship between the SOPs that are contained in Appendix B and the operational areas that are described in this Chapter.

What is a "regulated contaminant"?

JCDH defines any regulated contaminant as "any physical, chemical, biological, radiological substance or other matter other than naturally occurring substances at naturally occurring levels, in water which adversely affects human health or the environment." The Material Safety Data Sheets (MSDS) should be consulted for the products you use; See disposal information in the "Spills or Leaks" Section of the MSDS.

3.1 VEHICLE AND EQUIPMENT MAINTENANCE

The SOPs related to vehicle maintenance have three basic structural components:

1) Store chemicals, wastes, and vehicles inside whenever possible to minimize their potential to pollute stormwater.
2) Handle with care to avoid spills. Preventing spills is the best way to minimize stormwater contact with chemicals and petroleum products.
3) Recycle whenever possible. When it is not possible to recycle, Use proper disposal procedures to ensure contact with stormwater is minimized.

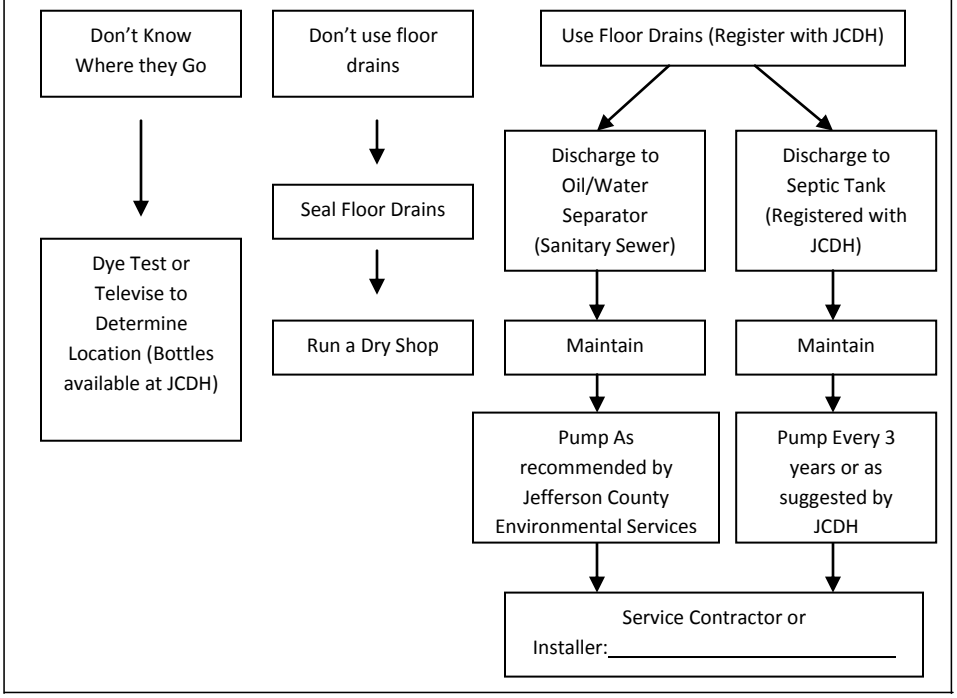
Seven common vehicle maintenance activities are described below. To assist each Storm Water Management Authority, Inc municipality in understanding what are the best methods to protect stormwater from becoming polluted by these activities, a worksheet-style aid is being given by JCDH to each facility that provides for stormwater pollution prevention methods for each activity immediately following the description of that activity. It is recommended that each municipal

JCDH rules prohibit any discharge to the ground of non-domestic wastewater containing any regulated chemicals.

employee become familiar with the worksheets applicable for your facility and practice filling them out as you review this section.

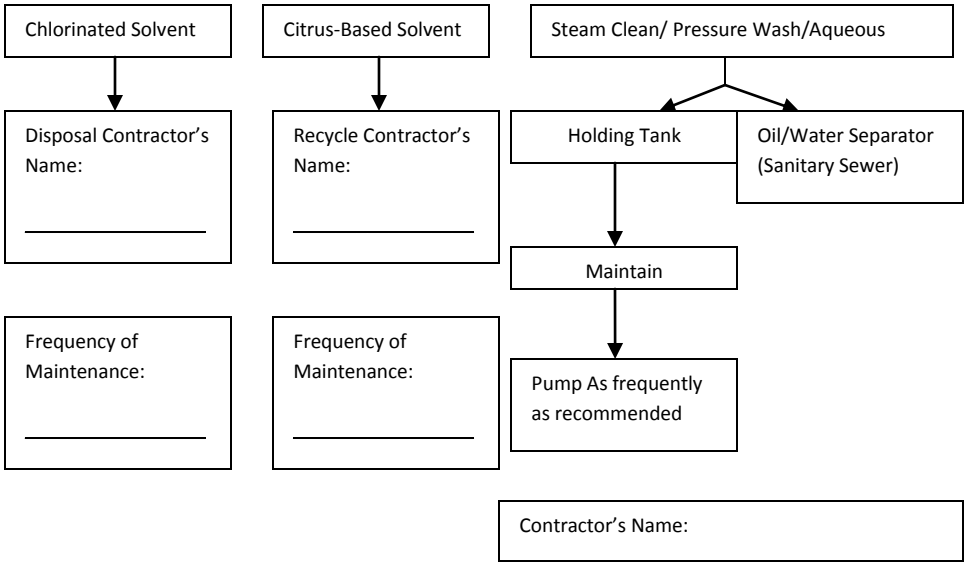
1. *Floor Drains*: Facility managers should be able to positively identify the discharge location of their floor drains. If the discharge location is unknown, it should be determined by visual inspections. Available methods to determine the discharge location include: televising or dye testing in which a bottle can be obtained from JCDH (see Section 2.5 for discussion of advantages and disadvantages of each method). Floor drains should either be connected to a regularly maintained septic tank or to a regularly maintained oil/water separator that discharges to the sanitary sewer. The facility should connect the floor drains to the appropriate device or close and seal the floor drains, and run a "dry shop". Public works facilities typically store or use "regulated contaminants" in the area served by the floor drain. Therefore, these floor drains must be closed, rerouted to the sanitary sewer via an oil/water separator, or rerouted to a septic tank registered with the JCDH (205)930-1230.

Figure 3-1 Floor Drain – Available Options
(circle the options that apply for your particular facility)



2. *Parts Cleaning*: Most vehicle maintenance facilities use one of three methods to clean parts: chlorinated solvents, citrus-based cleaners, or aqueous base cleaners. If chlorinated solvents are used, they should be disposed of as hazardous waste by a licensed hazardous waste contractor. Citrus based cleaners can be recycled by an off-site contractor reducing overall cost of its use. Steam cleaning or use of a commercial aqueous washer allows discharge to the sanitary sewer. Using non-hazardous chemicals reduces the risk of stormwater pollution.

Figure 3-2 Parts Cleaning- Available Options
(circle the options that apply for your particular facility)

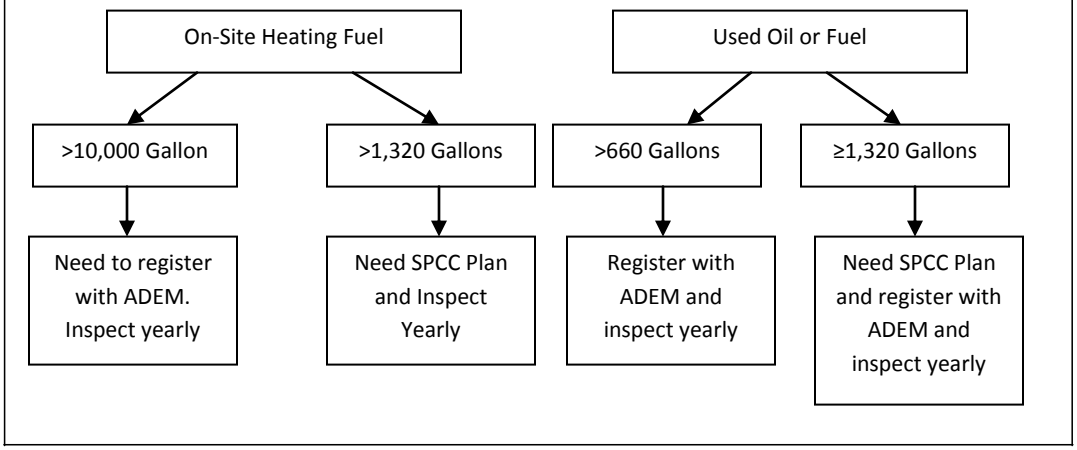


3. *Petroleum Storage*: ADEM regulates above-ground storage tanks (ASTs) when a facility is storing more than 660 gallons of used oil or fuel, or when a facility is storing more than 10,000 gallons of heating oil used for on-site heating. ADEM requires registration of ASTs and requires interstitial monitoring and double walls on all tanks. Federal regulations (40 CFR Part 112) require development of a Spill Prevention Control and Countermeasure Plan (SPCC) for facilities that store more than 1,320 gallons of any petroleum product. These regulations help protect stormwater by requiring regular inspections and development of spill prevention and clean-up procedures. Facility managers should understand and follow the regulations that apply to their facility.

To Register an AST

Call ADEM AST Program at (334)394-4399

Figure 3-3 Petroleum Storage-Available Options
(circle the options that apply for your particular facility)

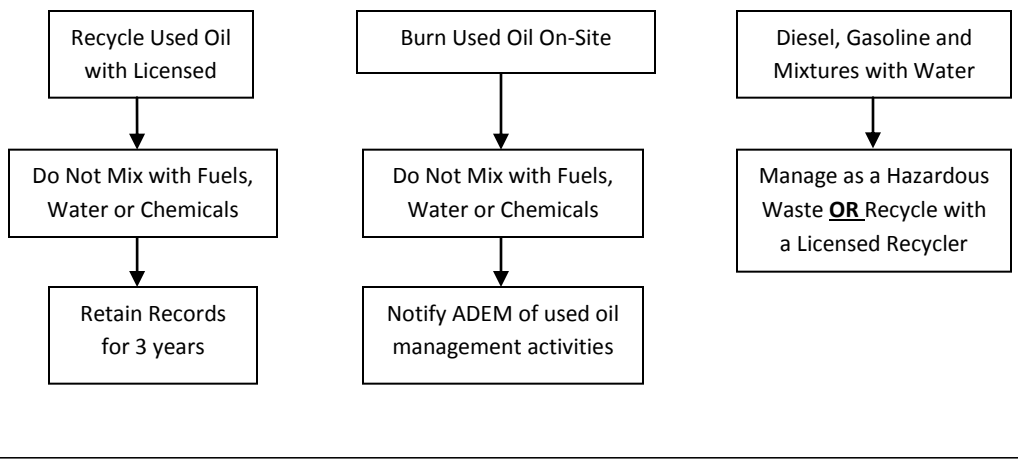


4. *Petroleum Disposal*: Proper disposal of petroleum products can minimize their impact on stormwater. Used oil can be recycled with a marketer who has registered with the ADEM. Used oil can also be burned on-site by a municipality for energy recovery as long as the oil has not been mixed with any other fuels or chemicals. Municipalities must notify ADEM of their used oil management activities if they are burning used oil on-site. Other wastes generated should be managed as follows:
   - Diesel fuel and gasoline, or any mixture of oil and water, must be managed as hazardous waste and should not be mixed with used oil.
   - Sludge from floor drains should be analyzed for Toxicity Characteristics Leaching Procedure (TCLP) prior to disposal to determine if it is hazardous waste.
   - Residual solids from oil spills may be managed as solid waste, unless the residuals are from a volatile fuel such as gasoline. Volatile fuel residuals must be managed as a hazardous waste.

Municipalities burning used oil onsite must register with ADEM

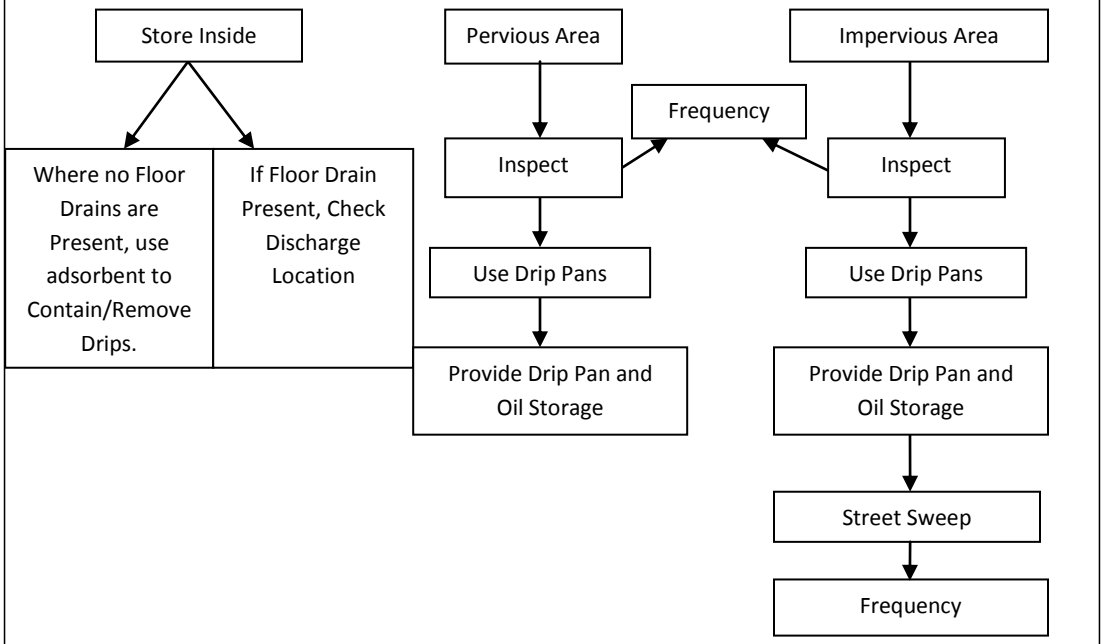
(334)271-7730

Figure 3-4 Petroleum Disposal - Available Options
(circle the options that apply for your particular facility)



5. *Vehicle Storage*: Vehicles should be stored indoors in an area where there are no floor drains or where any floor drains have been properly connected and registered(see above). If vehicles cannot be stored indoors, they can be stored on impervious areas that are inspected on a regular basis and which can be cleaned with a street sweeper as necessary. Vehicles can be stored on pervious (unpaved) areas that are inspected on a regular basis to assess if drip pans are necessary. Drip pans should always be used to collect leaking fluids. A dedicated, convenient storage area should be provided and clearly labeled for the drip pans and for the fluids they will contain. Leaking vehicles should be repaired as soon as practical to minimize stormwater pollution.

Figure 3-5 Vehicle Storage – Available Options
(circle the options that apply for your particular facility)



To Register a Car Wash Facility:

Call ADEM at (334) 271-4367 or for any other questions call JCDH at (205)930-1230

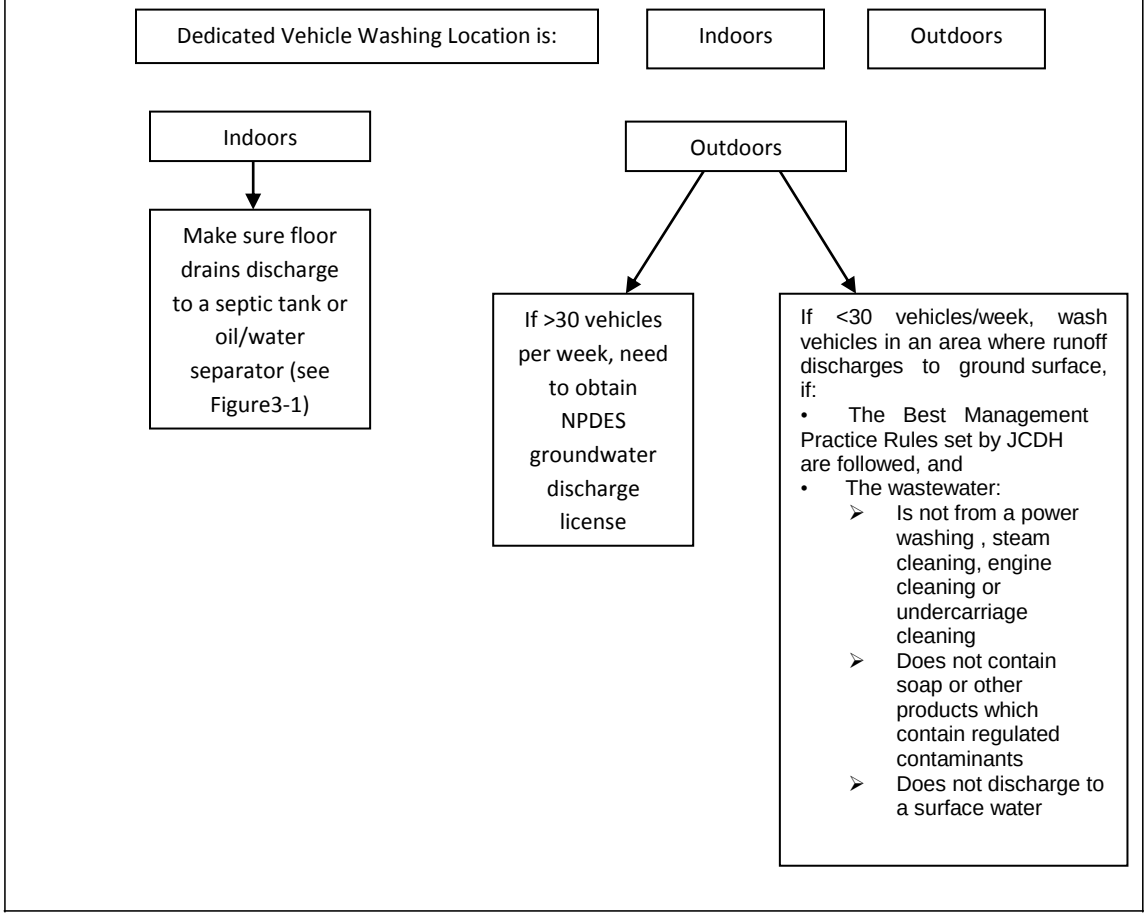
6. *Vehicle Washing:* If vehicles are washed regularly onsite, they should be washed in a dedicated area. The area can be:
   1) Indoors, if the washwater is discharged to floor drains that are properly connected to the septic tank or the sanitary sewer (See Figure 3-1),
   2) Outdoors; however if you wash more than 30 vehicles per week you must obtain a NPDES Groundwater Permit from ADEM, or
   3) Outdoors if you wash fewer than 30 vehicles per week and discharge to the ground surface, if:

To register a vehicle washing activity (when less than 30 vehicles per week):

Contact JCDH Stormwater Division at (205)930-1230

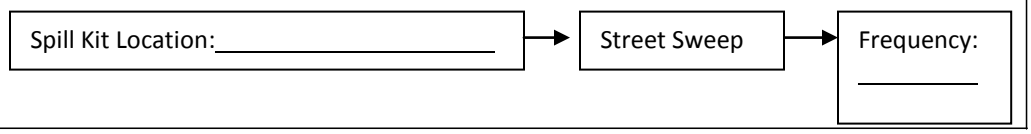
- The Best Management Practice Rules are followed,
- The activity is registered with JCDH or ADEM, and
- The wastewater is not from power washing, steam cleaning, engine cleaning, or undercarriage cleaning or does not contain soaps or other products which contain regulated contaminants.
- Does not discharge to a surface water or storm inlet

Figure 3-6 Vehicle Washing – Available Options
(circle the options that apply for your particular facility)



7. *Vehicle Fueling*: Vehicle fueling areas are a significant generation point for petroleum contamination of stormwater. Vehicle fueling areas should be impervious surfaces, and should be inspected and swept with a street sweeper on a regular basis. A spill kit and covered garbage container should be located near the fueling area and should be well labeled for individuals to use when needed.

Figure 3-7 Vehicle Fueling – Available Options
(Circle the options that apply for your particular facility)



An important component of stormwater protection at vehicle and equipment maintenance facilities is general good housekeeping. Conducting regular inspections of a facility can be an effective pollution prevention technique. The following is a list of areas facility Managers should consider when developing their own inspection checklist:

1) Check refuse areas for trash on the ground that could contaminate stormwater.
2) Check exterior vehicle and equipment areas for leaks, spills, drips, or excess dirt. Consider if street sweeping is necessary and if drip pan use is acceptable.
3) Check fueling areas for leaks, spills, or drips.
4) Check exterior petroleum storage areas for leaks, spills, or drips.
5) Check or clean-up of tracked sand and/or salt.
6) Check calcium chloride tank for leaks, spills, or cracks.
7) Check vehicle washing area for excess sediment and wastes..
8) Check oil/water separator in floor drain system to ensure it is functioning, and clean if necessary.
9) Clean catch basin grates around facility for entering stormwater.

Table 3-2 is an example inspection checklist that should be used on a regular (monthly or quarterly) basis to identify areas of potential stormwater pollution. Table 3-3 contains a blank form that the Facility Manager should fill in for their facility and return to the governing municipal official as soon as practical. These forms will be used to track the stormwater duties performed by each facility for the Storm Water Management Authority, Inc's annual report.

TABLE 3-2:

EXAMPLE INSPECTION CHECKLIST

Municipality:_____ **Facility Manager:**_____

Date: _____ **Inspector:** _____

Inspection Area	Practice Followed	Comments	Date Resolved (if applicable)
Check refuse areas for trash on the ground that could contaminate stormwater or be washed away in stormwater	**Acceptable/Needs Attention**		
Check all exterior vehicle and equipment areas for leaks, spills, drips, or excess dirt – Street sweeping necessary?	**Acceptable/Needs Attention**		
Check all exterior vehicle and equipment areas for leaks, spills, drips, or excess dirt – Drip pan use acceptable?	**Acceptable/Needs Attention**		
Check fueling areas for leaks, spills or drips	**Acceptable/Needs Attention**		
Check exterior petroleum storage areas for leaks, spills, or drips	**Acceptable/Needs Attention**		
Clean-up of tracked sand that might allow stormwater transport of sand	**Acceptable/Needs Attention**		
Clean-up tracked salt that might result in stormwater transport	**Acceptable/Needs Attention**		
Check calcium chloride tank for leaks, spills or cracks	**Acceptable/Needs Attention**		
Check vehicle washing area for excess sediment or wastes	**Acceptable/Needs Attention**		
Other:	**Acceptable/Needs Attention**		
Other:	**Acceptable/Needs Attention**		

Instructions: This form needs to be used for regular (quarterly) inspections at vehicle/equipment maintenance facilities. Program Managers should fill in the areas to be inspected for their facilities (refer to Section 3.1 and Table 3.2 Example Inspection Checklist). When the checklist is used during an inspection, the inspector needs to fill in the date as well as his/her name, circle either "Acceptable" or "Needs Attention", and note comments for each inspection area.

3.1 FACILITIES MAINTENANCE

Most Storm Water Management Authority, Inc municipalities own and maintain their own buildings, parks, and other green spaces while others rely on Jefferson County to provide this service. Those that have their own maintenance staff perform general maintenance activities that include mowing and trimming, painting, pest control, weed control, and all of the chemical and petroleum handling that is associated with these activities. The SOPs contained in Appendix B provide best management practices to protect stormwater from the potential hazards associated with each of these maintenance activities. Facilities maintenance personnel should be trained in each of the SOPs associated with their job by their respective cities or JCDH.

In addition to training municipal employees on the SOPs in Appendix B that affect their jobs, a formal street sweeping program can reduce pollutant loads from road salt and can reduce sand export to receiving waters. Street sweeping also reduces the amount of sediment, debris, and organic matter being washed away by stormwater. A street sweeping schedule will need to be kept similar to the one shown in Appendix B and presented to Storm Water Management Authority, Inc.

USEPA does not recommend how frequently a community should sweep, but most sweeping of municipal lots and roadways should be performed at least once per year. An appropriate schedule for street sweeping should be determined based on each municipality's specific needs. Heavy traffic areas can be swept weekly or monthly, depending on a community's available resources. Other locations, such as construction entrances, sand/salt loading areas, vehicle fueling areas, and vehicle and equipment storage areas should be swept on an as needed basis.

The State of Alabama has no formal standards that would not allow municipalities to reuse street sweepings in accordance with the Environmental Fact Sheet shown below . Street sweepings may be reused as long as they do not contain visual evidence of wastewater, animal wastes, oil or other petroleum products. Catch basin residuals must be tested to determine if they may be reused. Table 3-4 lists the compounds, the S-1 limits which allow unrestricted reuse, and the S-3 limits which allow reuse as a road base or subbase. Visually contaminated street and catch basin residuals must also be tested to determine if they contain hazardous wastes.

Table 3-4 Soil Standards Catch Basin Cleanings Reuse Guidance			
Maximum Contaminant Concentrations			
Regulated Contaminant	*S-1 Standards (mg/kg)*	*S-3 Standards (mg/kg)*	*USEPA SW-846 Test Method*
Metals			
Arsenic	11	11	6010B
Barium	750	3,400	6010B
Cadmium	32	230	6010B
Chromium	1000	5,000	6010B
Lead	400	400	6010B
Mercury	13	13	7471A
Selenium	260	260	6010B
Silver	45	200	6010B
VOCs			
Benzene	0.3	0.3	8260B
Dichloroethane, 1,2-	0.08	0.08	8260B
Isopropyl benzene	123	123	8260B
Methyl-t-butyl ether	0.13	0.13	8260B
Toluene	100	100	8260B
Xylene	500	1,100	8260B
Aklylbenzenes Butylbenzene, n- Butylbenzene, sec- Butylbenzene, tert- Isopropyl toluene, 4- Propylbenzene, n- Trimethylbenzene, 1,2,4- Trimethylbenzene, 1,3,5-	59 (total)	59 (total)	8260B
PAHs - Carcinogenic			
Benzo(a)anthracene	0.7	40	8270C
Benzo(a)pyrene	0.7	4	8270C
Benzo(b)fluoranthene	7	400	8270C
Benzo(k)fluoranthene	7	400	8270C
Chrysene	70	4,000	8270C
Dibenzo(a,h)anthracene	0.7	4	8270C
Indeno(1,2,3-cd)pyrene	0.7	40	8270C
PAHs – Noncarcinogenic			
Acenaphthene	270	270	8270C
Acenaphthylene	300	300	8270C
Anthracene	1,000	1,700	8270C
Fluoranthene	810	5,000	8270C
Fluorene	510	510	8270C
Methylnaphthalene,2-	150	150	8270C
Napthalene	5	5	8270C
Benzo(g,h,i)perylene Phenanthrene Pyrene	480 (total)	5,000 (total)	8270C

3.2 STORM DRAIN SYSTEM MAINTENANCE

Storm drain system maintenance consists of three components: cleaning, repairing (or retrofitting), and upgrading. Historically, storm drain systems have been repaired or upgraded only when catastrophic failures have occurred, such as those causing

flooding, road failures, or severe erosion. The General Permit requires that each Storm Water Management Authority, Inc regulated municipality develop a maintenance schedule for the storm drain system, as well as inspection procedures and schedule for long term control structures. The storm drain mapping currently being performed by JCDH will be presented to each city upon completion The estimated time frame with current resources should be able to meet the five years required from October 1, 2010. The completion date will hopefully be sooner through cooperative programs with the municipality fire departments and other agencies. This will allow for cities to make better estimates on where to expend fiscal resources to get the biggest impact on Storm Water infrastructure instead of the as-needed maintenance system in place now.

Conveyance System Maintenance

Section 2.2 of this Manual reviews how JCDH divides a municipality into distinct areas and prioritizes the areas based on their illicit discharge potential. A future component of that evaluation will be to consider the age and material of the infrastructure, which is an indicator of failure potential. This prioritization can be used in the future to aid in developing a maintenance program for the system.

Additional useful resources include the municipal capital budget and the GASB 34 accounting information. All of these items should be reviewed and evaluated to identify where and when repairs, retrofits, and upgrades should be conducted. The storm drain system maintenance program can be developed using a process that is similar to the local pavement management program. The following paragraphs provide guidance to city managers in developing an operation and maintenance program.

1) Vitrified clay (terracotta) storm drain pipe, asbestos cement pipe, or corrugated metal pipes in older areas should be replaced or retrofitted as part of other infrastructure work (street reconstruction, or combined sewer overflow (CSO) work). Televising and/or manual inspections should be performed to confirm the degree of repair or replacement necessary.
2) An inspection and replacement program should be developed for newer pipes and structures in order to conduct preventative maintenance that can affect long-term cost savings and avert catastrophic failures. The inspection and replacement program should consist of the following items:
    - <u>Storm Drain Pipe/Outfall Cleaning and Inspections</u>

– A cleaning and inspection prioritization should be established by all municipalities for storm drain pipes and outfalls. The City Manager should consider conducting annual inspections on storm drains and outfalls in high priority areas. Less frequent inspections (every 2 to 3 years) should be completed for medium and low priority areas. Inspections for structural conditions should be combined with the inspections for illicit discharges as described in Section 2.4.2. JCDH is helping to aid municipalities in this endeavor through the mapping of the storm drain and outfalls by providing information on the condition and sedimentation loading of each pipe.

- Catch basin Cleaning and Inspection – A prioritization plan should also be established for catch basin cleaning. The prioritization can be completed by the City Manager using the following two considerations: (1) amount of winter sand spread in different areas (this will be zero for most cities but should still be included in the plan), and (2) areas that have historically accumulated a large quantity of sediment or debris. This prioritization should be reviewed and updated frequently. The re-evaluation should use the same two criteria listed above (sand application and historical sediment accumulation). City Managers should identify a reasonable frequency of cleaning based on need, municipal budgets, and personnel availability. JCDH and Jefferson County can provide some assistance to cities without their own capabilities

  The Catch Basin Cleaning Form contained in Appendix A, should be used during cleaning as a method to inspect the catch basins to evaluate the integrity of the structure and identify necessary repairs. Any repairs identified on the forms should be incorporated into the municipality's work order system. Communities that outsource catch basin cleaning should either require that the contractor use the inspection form or should consider sending a public works employee, intern, or other municipal representative along with the contractor to evaluate structures. This form will be used by Storm Water Management Authority, Inc and JCDH to estimate the effectiveness of the program so all forms should be

completed and given to the relevant agency.

- Ditches and Swales Maintenance - Many Storm Water Management Authority, Inc municipalities have rural areas, where the storm drain system consists of roadside ditches. Sediment, grass clippings, winter sand, leaves, excess vegetation and other debris periodically impedes the proper function of these ditches and should be removed approximately annually. Ditch cleaning can be conducted manually or using heavy equipment. Ditch cleaning should be conducted during low water periods, minimizing the disturbance to existing vegetation. If existing vegetation is removed during ditch cleaning, the ditch side slopes should be seeded and mulched as soon as possible after dredging. Ditch cleaning with heavy equipment should not be conducted in areas where the ditch carries a perennial stream unless specifically approved by the Army Corp of Engineers. Pesticide use should also be kept to a minimum in these sensitive areas due to their direct impact on waterways.

3.3.1 Long Term Control Structure Inspection and Maintenance

In addition to the storm drain pipes, catch basins and outfalls, long term control structures such as detention ponds, vegetated filter strips, grass swales, and constructed wetlands must be inspected and maintained.

ADEM produces a BMP Manual that tells the design features for these BMPS that must be maintained. JCDH is working on a Manual that will tell the frequency of maintenance needed for these devices and is targeted for release in August 2012. The following table 3-5 provides recommended maintenance requirements from *NHDES BMPs for Urban Stormwater Runoff* to provide some general guidance until the manual can be released.

TABLE 3-5:
RECOMMENDED MAINTENANCE ON COMMON LONG-TERM STORMWATER BMPS

Structure Type	Maintenance Requirements
Extended Detention Pond (Dry)	The embankment should be inspected annually to determine if rodent burrows, wet areas, or erosion of the fill are present. Trees and shrubs should be kept off the embankment and emergency spillway areas. The vegetation should be mowed once per year to discourage woody growth. Vegetation should be managed without the aid of fertilizers. If vegetation is sparse or non-existent, test soils for proper nutrients/growing conditions and re-vegetate with drought-tolerant. Pipe inlets and outlets should be inspected annually and after major storm events. Sediment should be continually checked in the basin and removed as necessary. The structure should be inspected by a qualified professional on a periodic basis.
Vegetated Filter Strips	A properly designed and constructed filter strip should require little maintenance. It should be inspected frequently during the first year of operation and then annually thereafter. Large accumulations of sediments should be removed, and all gullies filled in and stabilized. Areas of bare soil should be immediately stabilized.
Grassed Swales	Swales should be mowed at least once per year to prevent the establishment of woody vegetation. Sediments should be removed as required and swale reseeded if necessary. Grass should not be mowed to less than three inches in height.
Wet Ponds and Constructed Wetlands*	The embankment should be inspected annually to determine if rodent burrows, wet areas, or erosion of the fill are present. Trees and shrubs should be kept off the embankment and emergency spillway areas. The vegetation should be mowed once per year to discourage woody growth. Vegetation should be managed without the aid of fertilizers. Inspect vegetation for invasive species annually and remove if present. Supplement wetland plants if <50% surface is bare. Harvest wetland plants that have been “choked out” by sediment buildup. Pipe inlets and outlets should be inspected annually and after major storm events. Sediment should be continually checked in the basin and removed as necessary. The structure should be inspected by a qualified professional on a periodic basis.

**NOTE: Source of information for Constructed Wetlands is USEPA manual of BMPs.*

Table 3-6
Storm Water Management Authority, Inc
LONG TERM STRUCTURAL CONTROL INSPECTION FORM

PROJECT NAME:		**CITY:**
LOCATION:		**INSPECTOR NAME:**
OWNER:		**DATE:**
ADDRESS:		**DATE OF LAST INSPECTION:**
PHONE #:		
CONTACT:		
BMP ID:		
BMP TYPE:	WET RETENTION POND	
ENGINEER OR DESIGNER:		
ADDRESS:		
CONTACT:		
PHONE #:		

MAINTENANCE INFORMATION

MAINTENANCE:

COMMENTS:

Storm Water Management Authority, Inc

1400 SIXTH AVENUE SOUTH. P.O. BOX 2648. BIRMINGHAM, ALABAMA 35202. (205)930-1230

Storm Water Structural Control Form (Municipal Use)

FORM

Part 1: General Information

Stormwater Municipality: _____ Date: ___
Mayor: _____
Contact Person: _____

Part 2: Existing Storm Water Structural Controls

Estimated Miles of Storm Sewer Inspected: ___ miles
Estimated personnel time spent inspecting: ___ hrs
Structural Controls Fixed:
___ estimated # of detention ponds
___ estimated # of retaining walls
___ estimated # of ditches repaired
___ estimated # of head walls repaired
___ estimated # of retention ponds

Part 3:New Storm Water Structural Controls

Estimated Miles of New Storm Sewer Installed: ___
Estimated Personnel time during installation: ___
Structural Controls Installed:
___ estimated # of detention ponds
___ estimated # of retaining walls
___ estimated # of ditches repaired
___ estimated # of head walls repaired
___ estimated # of retention ponds

If structural controls are cleaned or maintained by an outside entity (Jefferson County, State of Alabama, etc..) then contract with outside entity should be stabled to this form when returned.

Storm Water Management Authority, Inc

1400 SIXTH AVENUE SOUTH. P.O. BOX 2648. BIRMINGHAM, ALABAMA 35202. (205)930-1230

Development Form for Storm Water Structural Controls

Submit in Triplicate
Application

Part 1: General Information

Stormwater Municipality: _____ Date: _____
Applicant's Name _____
Applicant's email address/ Phone number: _____
Applicator Company Name: _____
Mailing Address: _____ City _____
State: _____ Zip: _____
Type of Development _____

Part 2: Engineering Information

I, _____, a _____ do hereby certify that the data stated in this report and/or attached sheets are true and accurate as presented.

Signature:_____ Date: _____ Reg. # _____
Address:_____ City:_____ State:_____ zip:_____ Phone: ___

Part 2: Storm Water Structural Controls Installed

Estimated Distance of New Storm Pipe Installed: _____ Ft.
Structural Controls Installed: _____ estimated # of detention ponds
_____ estimated # of retaining walls
_____ estimated # of ditches repaired
_____ estimated # of head walls repaired
_____ estimated # of retention ponds

Estimated Area of Detention Ponds:	1	6
	2	7
	3	8
	4	9
	5	10
Estimated Area of Retention Ponds:	1	6
	2	7
	3	8
	4	9
	5	10

Are there any other structures used for stormwater management if so explain: _____

3.4 CONSTRUCTION ACTIVITIES AND OTHER LAND DISTURBANCES

As Storm Water Management Authority, Inc's municipalities perform construction activities and other activities which disturb soil, they take precautions to prevent erosion and runoff of sediment. Road crews and landscaping crews are being trained in erosion and sediment control methods. JCDH is creating publications and training sessions that describe a variety of methods that can be used to reduce the long term impact of sedimentation and erosion on water quality. The material for each municipality should be available by June 2011 and in video form sometime thereafter. Each municipality will then be responsible for making sure any new hires are trained using the video material as well as a refresher course is offered for each existing employee on an annual basis. Erosion and Sedimentation Control SOPs are listed in Appendix C.

4. GLOSSARY OF ACRONYMS

ADEM Alabama Department of Environmental Management

AST Aboveground Storage Tank

AU Assessment Unit

BMP Best Management Practice

CWP Center for Watershed Protection

GASB General Accounting Standards Board

GIS Geographic Information System

GPS Geographic Positioning System

HUC Hydrologic Unit Code

JCDH Jefferson County Department of Health

IDDE Illicit Discharge Detection and Elimination

IDP Illicit Discharge Potential

MEP Maximum Extent Practical

MCM Minimum Control Measure

MSDS Material Safety Data Sheet

MSGP Multi Sector General Permit

MS4 Municipal Separate Storm Sewer System

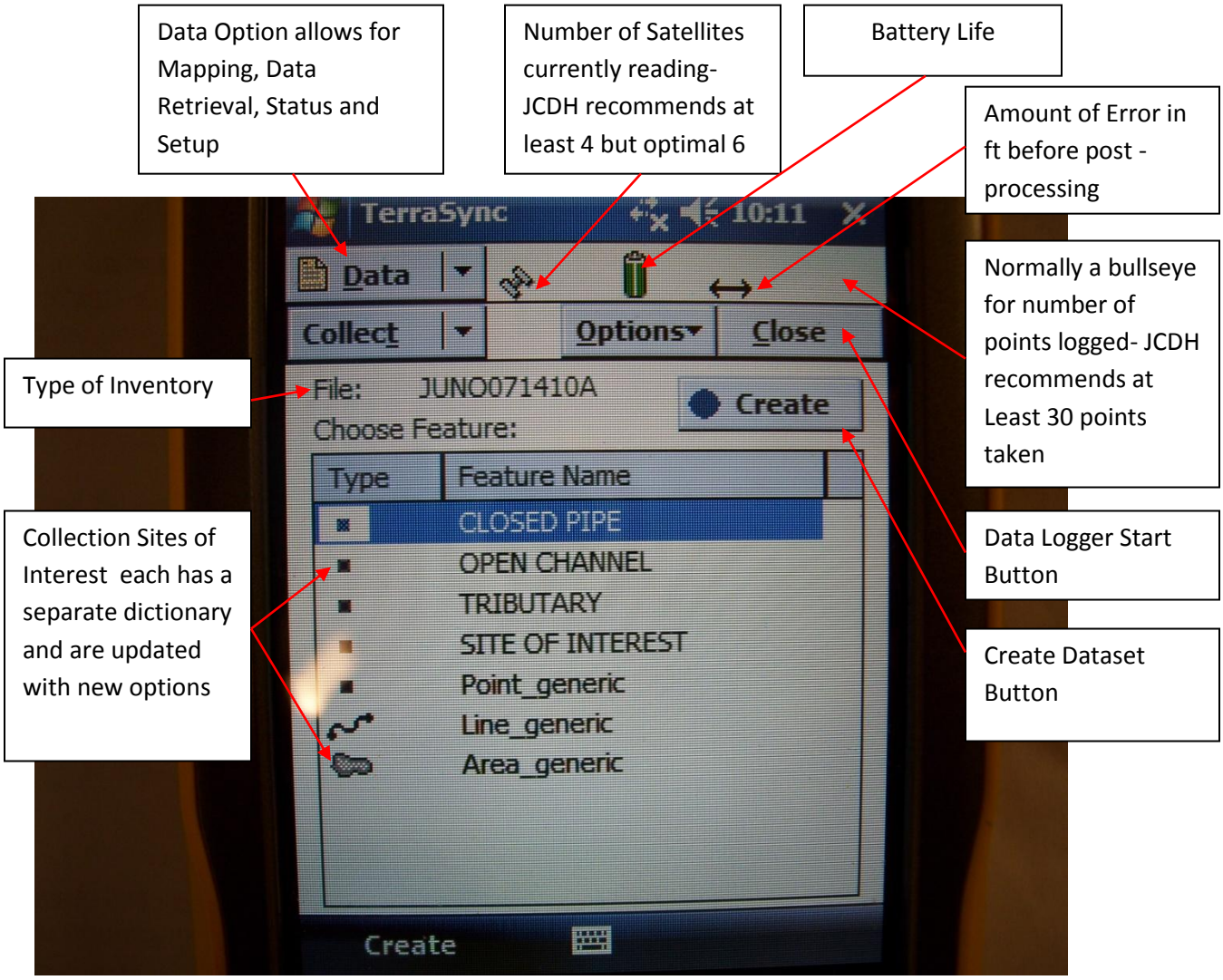
NEIWPCC New England Interstate Water Pollution Control Commission

NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
NRCS	National Resource Conservation Service
OBM	Optical Brightener Monitoring
PAHs	Polycyclic Aromatic Hydrocarbons
PCBs	Polychlorinated Biphenyls
SIC	Standard Industrial Classification
SOP	Standard Operating Procedure
SPCC	Spill Prevention Control and Countermeasure
TCLP	Toxicity Characteristics Leaching Procedure
TMDL	Total Maximum Daily Load
UNH	University of New Hampshire
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey

APPENDIX A

ILLICIT DISCHARGE DETECTION AND ELIMINATION SOPS AND FORMS

TYPICAL GPS SCREEN EXPLANATION



Standard Operating Procedure for:	
A.1 IDDE: Inspections During Mapping (JCDH Employees)	
Purpose of SOP:	This SOP provides a basic checklist for JCDH employees conducting illicit discharge inspections during mapping.

Always:

1) Characterize the outfall by recording information on the Tremble Nomad Unit data dictionary such as:
   - Side of creek
   - GPS location (at least 30 points to post process)
   - Flow present
   - Flow description
   - Material of pipe
   - Shape
   - Diameter, horizontal distance, vertical distance
   - Number of pipes
   - Submerged pipe
   - Sediment filled
   - pH
   - temperature
   - picture of all pipes
2) Conduct inspections during dry weather periods using the Dry Weather Outfall Inspection Form or data dictionary shown on the next page if a problem outfall is believed to be discovered
3) Follow procedure below if an illicit discharge is encountered (such as raw sewage, paint, etc.).
4) Conduct inspections with at least two JCDH employees per crew.
5) Carry a list of emergency phone numbers.(All JCDH inspectors are equipped with cell phones)
6) Have on JCDH badge at all times

Figure 1: Tremble Nomad Unit

Dry Weather Discharge

The CWP defines **dry weather** as a 48 hour period with no runoff-producing rainfall. JCDH prefers the period to be 72 hours but if continual rain occurs that will be switched to 48 hours as needed.

Whenever Possible:

1) Conduct inspections during low groundwater and leaf off conditions.
2) Identify and label the outfall with a unique identifier if outfall is believed to be a problem.
3) If dry weather flow is present at the outfall, and the flow **does not** appear to be an illicit discharge attempt to identify the source of the flow (intermittent stream etc.), then document the discharge for future comparison.
4) Collect samples of flowing discharges before and after source removal.

Equipment list for mapping:

1. Entrance and Exit Point Map
2. GPS unit with built in camera
3. Field sheets for any illicit discharge found (can be left in truck)
4. Cell phones
5. pH meter
6. First aid kit
7. Flash light or head lamp
8. Surgical gloves
9. Tape measure
10. Temperature probe
11. Waders
12. Watch with a second hand
13. Hand sanitizer
14. Sampling pole
15. Safety vests

Never:

1) Never put yourself in danger.
2) Never enter private property without permission

JCDH Procedure for illicit discharge detection

- Call supervisor and notify of location
- Take photos and record under Site of Interest in data dictionary on GPS unit as shown below
- Supervisor carries out sample bottles to be taken to lab for a rush sample
- Area is then visually inspected for the possible sources.
- If no source can be identified then wait for sample results to come back to see what possible contaminants are. At this point a further investigation will be launched. This can include but is not limited to 24 hour ISCO sampling, damming, etc.

Dry Weather Outfall Inspection Form

Location Information

Date: _____ **Inspector:** _____

Time: _____

Outfall ID: _____

Outfall Location: _____

Receiving Waterbody: _____

Photo Taken: Yes No **Photo ID:** _____

Weather: Clear Cloudy **Approximate Temp:** _____ **Wind Present:** Yes No

Precipitation in the past 3 days: No Yes _____inches

Pipe Flow: None Trickle Steady 1/4 pipe flow or more

Seepage Flow: None Trickle Steady 1/4 pipe flow or more

Color (if flow is present): _____

Inspection Information *Select all that are applicable*

Obvious Debris/Pollution:		**Odor:**		**Water Clarity:**	
None	0	None/Natural	0	Clear	0
Foam	3	Musty	5	Cloudy	5
Staining	5	Sewage/septic	10		
Floating Green Scum	8	Petroleum	10	Opaque	10
Oil / Film	9				
Vegetative Mat/or Gray Mat	9				
Sewage Solids	10				
TOTAL		**TOTAL**		**TOTAL**	

GRAND TOTAL SCORE =

Additional Information

Sediment Condition: Open 1/4 Full 1/2 Full 3/4 Full Plugged

Structure Condition: Excellent Good Fair Poor

Trash/litter present: Yes No **Yard waste observed:** Yes No

General Comments:

Potential Sources / Actions Taken:

Sample collected? Yes No

By whom? _____

Follow up required: Yes No

Parameters: **Results:**

Be sure to staple all relevant lab tests and assigned GPS points and photos to sheet during investigation.

NOTE: This information is to accompany the Dry Weather Outfall Inspection Form.

Odor – Most strong odors, especially gasoline, oils, and solvents are likely associated with high responses on the toxicity screening test.

Stale sanitary wastewater: sewage
Detergent, perfume: Laundromat or household laundry
Sulfur ("rotten eggs"): industries that discharge sulfide compounds or organics (meat packers, canneries, dairies)
Oil and gas: facilities associated with vehicle maintenance or petroleum product storage (gas stations) or petroleum refineries
Rancid-sour: food preparation facilities (restaurants, hotels)

Color – Important indicator of inappropriate industrial sources. Dark colors, such as brown, gray, or black are the most common.

Yellow: chemical plants, textile, and tanning plants
Brown: meat packers, printing plants, metal works, stone and concrete, fertilizers, and petroleum refining facilities [note: can be from natural organic acids if a wetland is upstream]
Green: chemical plants, textile facilities
Red: meat packers [note: can be from organic acids if a wetland is upstream]
Gray: dairies

Turbidity – The cloudy appearance of water caused by the presence of suspended or colloidal matter. In dry weather, high turbidity is often a characteristic of undiluted industrial discharges.

Cloudy: sanitary wastewater, concrete or stone operations, fertilizer facilities, automotive dealers
Opaque: food processors, lumber mills, metal operations, pigment plants

Floatable matter – a contaminated flow may contain floating solids or liquids directly related to industrial or sanitary wastewater pollution. Floatables of industrial origin may include animal fats, spoiled food, oils, solvents, sawdust, foams, packing materials, or fuel.

Oil sheen: petroleum refiners or storage facilities and vehicle service facilities. [note: there is a type of bacteria that looks like an oil sheen. If you take a stick and swirl around the sheen, it will break up into blocky pieces if it is the bacteria. A true oil sheen will quickly re-form and not look blocky.]
Toilet paper bits, fecal bits, food particles: sanitary wastewater
Soap suds: if white or a clear sheen, laundry discharge (check odor) [note: can also occur from natural surfactants; usually off-white or tan with an earthy-fishy odor.]

Deposits and Stains – Any type of coating near the outfall, usually a dark color. Deposits and stains will often contain fragments of floatable substances.

Lots of sediment: construction site erosion, sand and gravel pits, winter road applications
Oil stain: petroleum storage, vehicle service facilities, petroleum refineries
Rusty: precipitates from iron-rich water (natural or industrial) [note: if slimey and clumpy, it could be iron bacteria]
Grayish-black deposits and hair: leather tanneries
White crystalline powder: nitrogenous fertilizer waste

Vegetation – Vegetation surrounding an outfall may show the effects of industrial pollutants. Decaying organic materials coming from various food product wastes would cause an increase in plant life, while the discharge of chemical dyes and inorganic pigments from textile mills could noticeably decrease vegetation. It is important not to confuse the adverse effects on high Storm Water flows on vegetation with highly toxic dry-weather intermittent flows.

Excessive growth: food product facilities, fertilizer runoff (lawns, golf courses, and farms)
Inhibited growth: high Storm Water flows, beverage facilities, printing plants, metal product facilities, drug manufacturing, petroleum facilities, vehicle service facilities, and automobile dealers

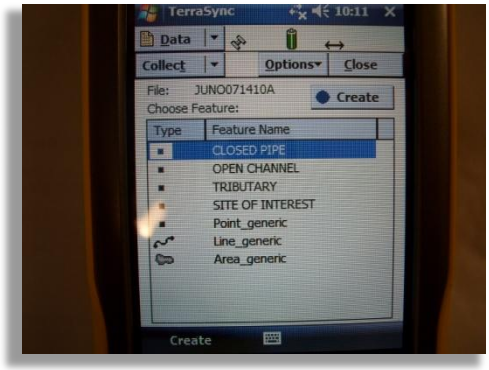
Damage to Outfall Structures – Outfall damage can be caused by severely contaminated discharges that are very acidic or basic in nature. Primary metal industries have a strong potential to cause outfall structure damage because their batch dumps are highly acidic. Poor construction, hydraulic scour, and old age can also negatively affect the condition of al outfall structure.

Concrete or spalling (breaking off into chips or layers): industrial flows
Peeling paint: industrial flows
Metal corrosion: industrial flows

This sheet was courtesy of the NHDES (modified from Pitt et al., 1993 Investigation of Inappropriate Pollutant Entries into Storm Drainage Systems: a User's Guide. EPA Office of research and Development, EPA/600/R-92/238).

Data Dictionary Screen Shots Typical Example

The data dictionary is used on the GPS units to allow for easy waterproof form carrying. The options can be changed and the screen shots presented are just a sample of what JCDH is using currently. This helps to keep the paper forms like the ones above strictly for documentation purposes.



Opening Screen for Oufall Monitoring

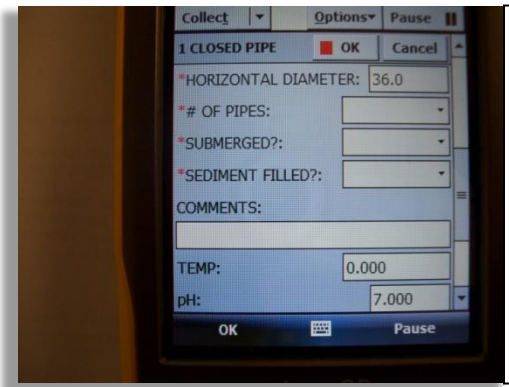
Options:

- Closed Pipe
- Open Channel
- Tributary
- Site of Interest

Closed Pipe Outfall (Page 1)

Option chose (Closed Pipe)
Secondary Options:

- Side of Creek
- Flow Present
- Flow Type
- Flow Description
- Pipe Material
- Shape
- Vertical Diameter



Closed Pipe Outfall (Page2)

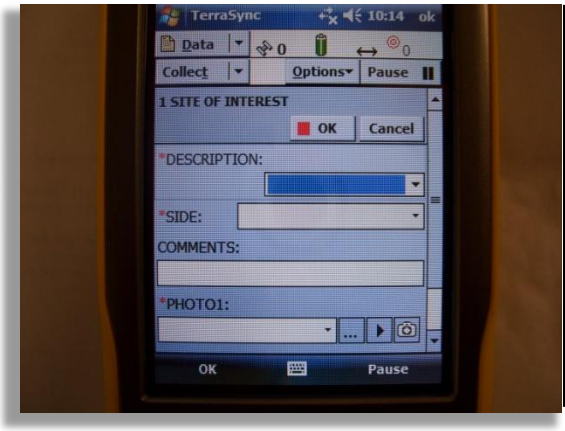
Option chose (Closed Pipe)
Secondary Options:

- Horizontal Diameter
- Number of Pipes
- Submerged
- Sediment Filled
- Comments
- Temperature
- pH

Option chose (Closed Pipe)
Photo Attachment Options:

- Photo 1
- Photo 2

Closed Pipe Outfall (Page3)



Site of Interest:

- Description
- Side of Creek
- Comments
- Photo

Site of Interest for logging Illicit or Suspicious Discharges

Standard Operating Procedure for:	
A.2 IDDE: Long-Term Inspections –Dry Weather (JCDH Employees)	
Purpose of SOP:	To provide supervisor and field crew with a punch list of things to remember during regularly scheduled inspections.

Always:

1) Conduct inspections during dry weather periods (48-72 hours after rain event).
2) Check the outfall's dimensions, shape, and component material using the GPS data dictionary with the existing site name in the data dictionary
3) Characterize and record observations on basic sensory and physical indicators (e.g., odor, color, oil sheen).
4) If an illicit discharge is encountered (such as raw sewage, paint, etc.), follow the procedure below.
5) Perform inspections so as to meet JCDH's goal of inspecting each outfall within the 5 year permit cycle (long term).
6) Take pictures in the data dictionary for later inspections and GIS maps.
7) Always have on JCDH badge when doing inspections

Whenever Possible:

1) Identify and label the outfall with a unique identifier. For example "SWO-013".
2) If dry weather flow is present at the outfall, and the flow does not appear to be an obvious illicit discharge (e.g., flow is clear, odorless, etc.), attempt to identify the source of the flow (intermittent stream, etc.) then document the discharge for future comparison.
3) Collect samples before and after source removal.

Never:

1) Never put yourself in danger.
2) Never enter private property without permission.

JCDH Procedure for illicit discharge detection

- Call supervisor and notify of location
- Take photos and record under Site of Interest in data dictionary on GPS unit as shown below
- Supervisor carry out sample bottles to be taken to lab for a rush sample
- Area is then visually inspected for the possible sources.
- If no source can be identified, wait for sample results to provide information on possible contaminants. At this point a further investigation will be launched. This can include but is not limited to 24 hour ISCO sampling, damming, etc.

Standard Operating Procedure for:	
A.2 IDDE: Long-Term Inspections –Wet Weather (JCDH Employees)	
Purpose of SOP:	To provide supervisor and field crew with a punch list of things to remember during regularly scheduled inspections.

Always:

8) Conduct inspections during flow events, or as close to a rain event as possible. (no longer than 6 hours)
9) Check the outfall's dimensions, shape, and component material using the GPS data dictionary with the existing site name in the data dictionary
10) Characterize and record observations on basic sensory and physical indicators (e.g., odor, color, oil sheen).
11) If an illicit discharge is encountered (such as raw sewage, paint, etc.), follow the procedure below.
12) Perform inspections so as to meet JCDH's goal of inspecting each outfall within the 5 year permit cycle (long term).
13) Take pictures in the data dictionary for later inspections and GIS maps.
14) Always have on JCDH badge when doing inspections

Whenever Possible:

4) Identify and label the outfall with a unique identifier. For example "SWO-013".
5) Collect samples before and after source removal.

Never:

3) Never put yourself in danger.
4) Never enter private property without permission.

JCDH Procedure for illicit discharge detection

- Call supervisor and notify of location
- Take photos and record under Site of Interest in data dictionary on GPS unit as shown below
- Supervisor carry out sample bottles to be taken to lab for a rush sample
- Area is then visually inspected for the possible sources.
- If no source can be identified, wait for sample results to provide information on possible contaminants. At this point a further investigation will be launched. This can include but is not limited to 24 hour ISCO sampling, damming, etc.

Standard Operating Procedure for:	
A.3 IDDE: Opportunistic Inspections (Non JCDH Employees)	
Purpose of SOP:	This SOP provides city field personnel with a quick checklist of proper procedures to follow if they observe illicit discharges while conducting their regular duties.

Always:

1) Call dispatcher, supervisor, or JCDH official if you see evidence of an illicit discharge. (If not a JCDH employee). If JCDH employee notify supervisor or follow illicit discharge procedure.
2) Assess the general area of the illicit discharge to see if you can identify its' source.

Whenever Possible:

1) Use the Incident Tracking Sheet to document observations.
2) Take photographs of the illicit discharge.
3) Get Supervisor to fill out Illicit Discharge Form.
4) Use the Catch Basin Cleaning Form to document observations during cleaning.

Never:

1) Never enter private property without permission.
2) Never put yourself in danger.

Standard Operating Procedure for:	
A.4 IDDE: Citizen Call-in Inspections (JCDH Employees and Municipal Officials)	
Purpose of SOP:	To collect appropriate information from a citizen reporting a potential illicit discharge to increase the chances of identifying and removing its source.

Always:

1) Use the JCDH complaint system and call in line at (205)930-1230. The Incident Tracking Sheet below can provide an additional document to collect the appropriate information that then should be entered into JCDH complaint system
2) Investigations should be worked with in 5-7 business days and the status should be reported on the complaint system.
3) All action taken should be recorded.
4) Follow JCDH procedures on complaints for any additional information
5) All municipal employees should call in the complaint to JCDH at (205)930-1230 for tracking purposes

Whenever Possible:

1) Provide additional training on tracking stormwater complaints
2) Generate GIS databases from information taken from complaints to scan for any patterns of illicit discharges

Never:

1) Never enter private property without permission.
2) Never put yourself in danger.

ILLICIT DISCHARGE HOTLINE INCIDENT TRACKING SHEET

Copied with permission from: *Illicit Discharge Detection and Elimination-A Guidance Manual for Program Development and Technical Assessments,* CWP, 2004.

Incident ID:				
Responder Information				
Call taken by:			Call date:	
Call time:			Precipitation (inches) in past 24-48 hrs:	
Reporter Information				
Incident time:			Incident date:	
Caller contact information (*optional*):				
Incident Location *(complete one or more below)*				
Latitude and longitude: Or other coordinate system				
Stream address or outfall #:				
Closest street address:				
Nearby landmark:				
Primary Location Description	**Secondary Location Description:**			
Stream corridor *(In or adjacent to stream)*	Outfall	In-stream flow	Along banks	
Upland area *(Land not adjacent to stream)*	Near storm drain	Near other water source (storm water pond, wetland, etc.):		
Narrative description of location:				
Upland Problem Indicator Description				
Dumping	Oil/solvents/chemicals	Sewage		
Wash water, suds, etc.	Other: _____			
Stream Corridor Problem Indicator Description				
Odor	None	Sewage	Rancid/Sour	Petroleum (gas)
	Sulfide (rotten eggs); natural gas	Other: Describe in "Narrative" section		
Appearance	"Normal"	Oil sheen	Cloudy	Suds
	Other: Describe in "Narrative" section			
Floatables	None:	Sewage (toilet paper, etc)	Algae	Dead fish
	Other: Describe in "Narrative" section			
Narrative description of problem indicators:				
Suspected Violator (name, personal or vehicle description, license plate #, address, etc.):				

Standard Operating Procedure for:	
A.5 IDDE: Septic System Inspections (JCDH Employees and Municipal Employees)	
Purpose of SOP:	Failed septic systems can adversely impact water quality. This SOP provides a quick reference list to supervisors and field crews that are conducting an initial screening for failures in areas that are identified in the full IDDE program.

Always:

1) Refer potential septic tank issues to JCDH (205)903-1230 if a municipal employee.
2) JCDH refer all septic tank issues to Community Environmental Protection Division. They will follow internal procedures to have all issues resolved. Monitor to make sure work is being completed.
3) Inform homeowner that they have a leak and that action needs to be taken to remediate the problem such as tank pumping until problem can be resolved

Whenever Possible:

1) Screen high risk areas (older areas or areas near lakes or impaired waterbodies). JCDH keeps a record of all septic tank malfunctions and what areas are more likely for malfunctions
2) Look for indicators of failures, such as wet areas or disagreeable odors near the leach field.
3) JCDH documents all septic tank systems as they are installed and what repairs are issued.

Never:

1) Never enter private property without permission.
2) Never put yourself in danger.

Related References	
	Jefferson County Department of Health Community Environmental Protection Division Environmental Health Services 1400 Sixth Avenue South Birmingham, AL 35233 (205)930-1230

Standard Operating Procedure for:	
A.6 IDDE: Tracing Illicit Discharges (JCDH Employees)	
Purpose of SOP:	To provide a quick reference list of items to keep in mind during tracing activities to efficiently and systematically identify the source of an illicit discharge.

Always:

1) Review / consider information collected when illicit discharge was initially identified (Incident Tracking Sheet from municipality, Data Dictionary from JCDH, or Dry Weather Outfall Inspection Form can all be used for this purpose).
2) Survey the general area / surrounding properties to identify potential sources of the illicit discharge as a first step. If discharge is fecal or similar JCDH takes enforcement action immediately and then educates homeowner using pamphlets, flyers, or talks to communities about ways to eliminate these issues.
3) JCDH traces illicit discharges using visual inspections of upstream points as a secondary step.
4) JCDH documents tracing results for future reference.
5) JCDH uses analysis software to tell if there are illicit discharges between set sample points and then uses personnel to track these discharges

Whenever Possible:

1) JCDH can employ the use of weirs, sandbags, dams, or optical brightener monitoring traps to collect or pool intermittent discharges during dry weather for further inspection.
2) Although rarely used by JCDH, televising of the storm drain system can be used trace high priority, difficult to detect illicit discharges.
3) JCDH dye tests, with a fluorescent green dye, the individual discharge points within suspected buildings.
4) If the source cannot be found, it is added to the area GIS database for future inspection programs.
5) Samples are always taken by JCDH usually in pairs to confirm/refute illicit discharge.

Never:

1) Never enter private property without permission.
2) Never put yourself in danger.

Standard Operating Procedure for:	
A.7 IDDE: Removing Illicit Discharges (JCDH and Municipal Employees)	
Purpose of SOP:	Proper removal of an illicit discharge will ensure it does not recur. Using legal methods for the removal will minimize the municipality's liability. This SOP provides an overview of illicit discharge removal procedures.

Always:

1) Determine who is financially responsible; and follow associated procedures on Table 2-9.
2) Suspend access to storm drain if threats of death or serious physical harm to humans or the environment are possible.
3) If the discharge is from an exempt facility (see Table 2-9) notify the facility operator and the appropriate enforcement authority.
4) Repair/correct cause of discharge if municipality is responsible.
5) Collect a confirmatory sample after the removal. Seek technical assistance from JCDH, if needed.
6) Seek fining methods through the *Erosion and Sedimentation Control Ordinance* or through municipal codes. Each day of discharge will constitute a separate offense.
7) Work with guilty party to solve issue as much as possible.

Whenever Possible:

1) Issue a Notice of Violation for violations of the *Erosion and Sedimentation Control Ordinance* adopted by all Storm Water Management Authority, Inc municipalities.

Never:

1) Never repair/correct cause of discharge on private property until all organizations have met and decided what is the best course of action (JCDH Storm Water program, Mayor, City Official, etc.)

TABLE 2-9:
NOTIFICATION AND REMOVAL PROCEDURES FOR ILLICIT DISCHARGES INTO THE MUNICIPAL SEPARATE STORM SEWER SYSTEM

Financially Responsible Party	Source Identified	Enforcement Authority	Procedure to Follow
Private Property Owner	One-time illicit discharge (e.g., spill, dumping, etc.)	Ordinance enforcement authority (Municipal Official, JCDH)	• Contact Owner • Issue Notice of Violation • Issue fine
Private Property Owner	Intermittent or continuous illicit discharge from legal connection	Ordinance enforcement authority (Municipal Official, JCDH)	• Contact Owner • Issue Notice of Violation • Determine schedule for removal • Confirm removal
Private Property Owner	Intermittent or continuous illicit discharge from illegal connection or indirect (e.g., infiltration or failed septic)	Plumbing Inspector, Municipal Official, JCDH	• Notify plumbing inspector
Municipal	Intermittent or continuous illicit discharge from illegal connection or indirect (e.g., failed sewer line)	Ordinance enforcement authority (JCDH, Municipal Official, Jefferson County Environmental Services)	• Issue work order • Schedule removal • Remove connection • Confirm removal
Exempt 3rd Party • Alabama Department of Transportation ALDOT (in selected urbanized areas) • Industrial Facilities with selected SIC codes	Any	USEPA	• Notify exempt third party and USEPA of illicit discharge

Standard Operating Procedure for:	
A.8 IDDE: Removing Industrial Illicit Discharges (JCDH and Municipal Employees)	
Purpose of SOP:	Proper removal of an industrial illicit discharge will ensure it does not recur. Using legal methods for the removal will minimize the municipality's liability. This SOP provides an overview of industrial illicit discharge removal procedures.

Always:

1) Determine who is financially responsible; and follow associated procedures on Table 2-9.
2) Suspend access to storm drain if threats of death or serious physical harm to humans or the environment are possible.
3) If the discharge is from an exempt facility (see Table 2-9) notify the facility operator and the appropriate enforcement authority.
4) Repair/correct cause of discharge if industrial discharge is from a municipal source
5) Collect a confirmatory sample after the removal. Seek technical assistance from JCDH, if needed.
6) Seek fining methods through the *Erosion and Sedimentation Control Ordinance* or through municipal codes. Each day of discharge will constitute a separate offense. These offenses may be subject to escalated fees according to municipal or other ordinances.
7) Work with guilty party to solve issue as much as possible. Use environmental engineer for facility when possible, these have been identified from the existing Air Toxins program at JCDH

Whenever Possible:

1) Issue a Notice of Violation for violations of the *Erosion and Sedimentation Control Ordinance* adopted by all Storm Water Management Authority, Inc municipalities.
2) GIS locate all NPDES discharge sites for all industrial sources within the Storm Water Management Authority, Inc municipalities.
3) Work with ADEM to check all NPDES permit limits to make sure industrial sources are within allowed limits

Never:

1) Never repair/correct cause of discharge on private property until all organizations have met and decided what is the best course of action (JCDH Storm Water program, Mayor, City Official, etc.)

APPENDIX B

POLLUTION PREVENTION AND GOOD HOUSEKEEPING SOPS

Standard Operating Procedure for:	
B.1 Catch Basin Cleaning (Municipal or Jefferson County Public Works Employees)	
Purpose of SOP:	To protect Storm Water by maintaining the ability of catch basins to trap sediments, organic matter, and litter. This reduces clogging in the storm drain system as well as the transport of sediments and pollutants into receiving waterbodies.

Always:

1) Inspect catch basins for structural integrity and evidence of illicit discharges during cleaning. Use the Catch Basin Cleaning Form.
2) If gross contamination (sewage or oil), stop cleaning and report to supervisor for follow up. The supervisor should then report this to JCDH at (205)930-1230.
3) Stockpile and cover catch basin residuals on an impervious surface that discharges to a sanitary sewer or buffered area until test results are known (if reuse is planned).
4) Test catch basin stockpile as follows:
    - If obviously (by visual and/or olfactory examination) contaminated with sanitary wastewater, animal wastes, oil, gasoline or other petroleum products, test the solids pursuant to the hazardous waste determination dispose of as follows:
        a) If non-hazardous – dispose at any permitted, lined solid waste landfill or other solid waste treatment facility permitted to accept this material.
        b) If hazardous – dispose of in accordance with Alabama Hazardous Waste Rules.
    - If not obviously contaminated,
        a) Test for metals, VOCs and PAHs.
        b) Compare with the following charts used by New Hampshire or relevant Alabama used charts.

Whenever Possible:

1) Inspect each catch basin at least annually, during catch basin cleaning. These forms will need to be reported to JCDH for record keeping unless the municipality has a record keeping process in place.
2) Create an internal checklist for catch basins to help classify which catch basins require maintenance and how often.
3) Perform street sweeping on an appropriate schedule to reduce the amount of sediment, debris and organic matter entering the catch basins, which in turn reduces the frequency with which they will need to be cleaned. The street sweeping schedules should be provided to JCDH or Storm Water Management Authority, Inc and tracked on a monthly basis by each municipality
4) Discharge fluids collected during catch basin cleaning to a sanitary WWTP, or buffered detention area.
5) The forms listed below should be completed and turned into JCDH on a monthly basis. This allows for miles of street swept and number of catch basins cleaned each year.

STORM WATER MANAGEMENT AUTHORITY, INC CATCH BASIN CLEANING FORM

Date:	**Precipitation in the last three days? No Yes**
Supervisor/Crew Leader:	
Municipality:	

Catch Basin ID	Basin Location	Problem Identified? (Check all that apply)				Comments
		Flow	Poor Condition	Oil Sheen	Excess Sediment	

Catch Basin Cleanings Reuse Guidance			
Maximum Contaminant Concentrations			
Regulated Contaminant	*S-1 Standards (mg/kg)*	*S-3 Standards (mg/kg)*	*USEPA SW-846 Test Method*
Metals			
Arsenic	11	11	6010B
Barium	750	3,400	6010B
Cadmium	32	230	6010B
Chromium	1000	5,000	6010B
Lead	400	400	6010B
Mercury	13	13	7471A
Selenium	260	260	6010B
Silver	45	200	6010B
VOCs			
Benzene	0.3	0.3	8260B
Dichloroethane, 1,2-	0.08	0.08	8260B
Isopropyl benzene	123	123	8260B
Methyl-t-butyl ether	0.13	0.13	8260B
Toluene	100	100	8260B
Xylene	500	1,100	8260B
Aklylbenzenes Butylbenzene, n- Butylbenzene, sec- Butylbenzene, tert- Isopropyl toluene, 4- Propylbenzene, n- Trimethylbenzene, 1,2,4- Trimethylbenzene, 1,3,5-	59 (total)	59 (total)	8260B
PAHs - Carcinogenic			
Benzo(a)anthracene	0.7	40	8270C
Benzo(a)pyrene	0.7	4	8270C
Benzo(b)fluoranthene	7	400	8270C
Benzo(k)fluoranthene	7	400	8270C
Chrysene	70	4,000	8270C
Dibenzo(a,h)anthracene	0.7	4	8270C
Indeno(1,2,3-cd)pyrene	0.7	40	8270C
PAHs – Noncarcinogenic			
Acenaphthene	270	270	8270C
Acenaphthylene	300	300	8270C
Anthracene	1,000	1,700	8270C
Fluoranthene	810	5,000	8270C
Fluorene	510	510	8270C
Methylnaphthalene,2-	150	150	8270C
Napthalene	5	5	8270C
Benzo(g,h,i)perylene Phenanthrene Pyrene	480 (Total)	5,000 (Total)	8270C

Standard Operating Procedure for:	
B.2 Storm Drain System Repair and Maintenance (Municipal or Jefferson County Public Works Employees)	
Purpose of SOP:	To protect Storm Water by replacing or repairing components of the storm drain system on a regular basis to prevent a failure of the storm drain system.

Always:

1) Practice preventive maintenance for cracks, leaks, and other conditions that could cause breakdowns in the system by identifying maintenance issues such as:
    - For catch basins during catch basin cleaning (see SOP B.1)
    - For outfalls during IDDE inspection (see SOP A.1, A.2 and A.3)
2) Repair defective structures or equipment identified during an inspection as soon as possible.
3) Test and dispose of stockpiled materials as described in SOP B.1.
4) Document inspections, cleanings and repairs and report them to Storm Water Management Authority, Inc or JCDH (SOP B.1 for catch basins, SOPs A.1 through A.3 for outfalls, and attached example form for pipes).
5) Use appropriate erosion and sediment control practices when performing repairs.

Whenever Possible:

1) Practice preventive maintenance for pipes by televising:
    - Prior to reconstruction of roadways, or
    - On a regular schedule beginning with high priority areas.
    - Or track all televising of sewer lines by Jefferson County Environmental Services.
2) Research and implement new technology that will improve the overall performance of the storm drain system.
3) Perform street sweeping on a regular basis to reduce the amount of sediment, debris and organic matter entering the storm drain system, which in turn reduces the frequency with which the system will need to be cleaned. This activity will need to be tracked and presented to Stormwater Management Authority or JCDH on a monthly basis.
4) Use documentation of repairs and maintenance to develop a capital improvement and O&M plan for future system maintenance. This should be written in an overall city document plan.

Never:

1) Never allow defective equipment or structures to go unrepaired.

Related References
-USEPA National Menu of BMPS -Alabama Soil and Conservation Committee's *Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management of Construction Sites and Urban Areas*

B.3 Erosion and Sediment Control (All Organizations)

Purpose of SOP:	To protect Storm Water from pollution by reducing or eliminating pollutant loading from land disturbing activities.

Always:

1) Use erosion control techniques or devices to stabilize disturbed areas.
2) Use effective site planning to avoid sensitive areas.
3) Keep land disturbance to a minimum.
4) Inspect and maintain erosion control devices after each 0.75 inches of rain
5) Install erosion control devices properly.
6) Remove sediment accumulated during construction from permanent BMPs once construction is completed.
7) Minimize the amount of bare soil by scheduling phases of construction and stabilization.
8) Minimize slope lengths.
9) Monitor practices and adjust, maintain, and repair them periodically and after every storm.
10) Reduce the velocity of Storm Water runoff.
11) Prevent erosion by covering bare soil with mulch or other cover.
12) Protect existing Storm Water structures from sediment by using temporary sediment traps, silt fence, or perforated risers.
13) Divert clean water around construction site.
14) Make sure all permitting has been done and approved through JCDH and the local Stormwater Management Authority municipality. See form on next page for electronic permit.
15) Allow 3-14 business days for initial review time on large commercial developments.

Whenever Possible:

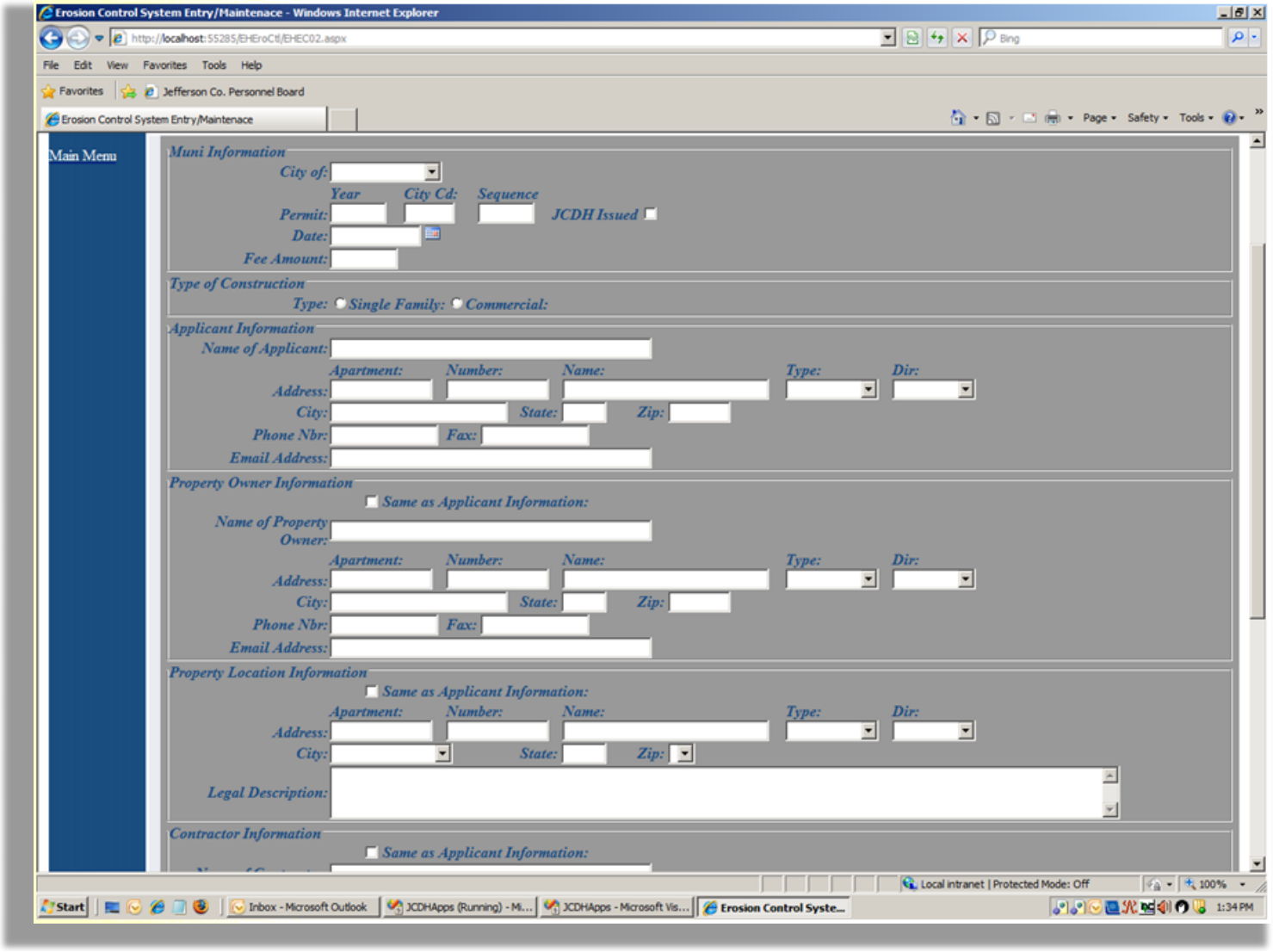
1) Limit construction activities during months with higher runoff rates.
2) Install erosion control blankets when seeding drainage ways.
3) Protect natural vegetation, especially near waterbodies, wetlands, and steep slopes.
4) Establish vegetative cover with good root systems prior to freeze/thaw cycles.

Never:

1) Never divert runoff into a sensitive area.
2) Never remove temporary measures before construction is complete.
3) Never allow silt fences to over-run or put in flow paths.

Related References
-USEPA National Menu of BMPS -Alabama Soil and Conservation Committee's *Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management of Construction Sites and Urban Areas*

JCDH EROSION AND SEDIMENTATION CONTROL PERMITTING FORM



Standard Operating Procedure for:	
B.4 Landscape Design and Management (All Organizations)	
Purpose of SOP:	To protect Storm Water by designing and managing landscaping in ways that minimize polluted runoff.

Always:

1) Design landscaping by taking into account soil types, light, drainage, desired maintenance level and budget. A soil map is attached on the following page of Jefferson County but for further soil information go to http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx.
2) Design for ease of maintenance.

Whenever Possible:

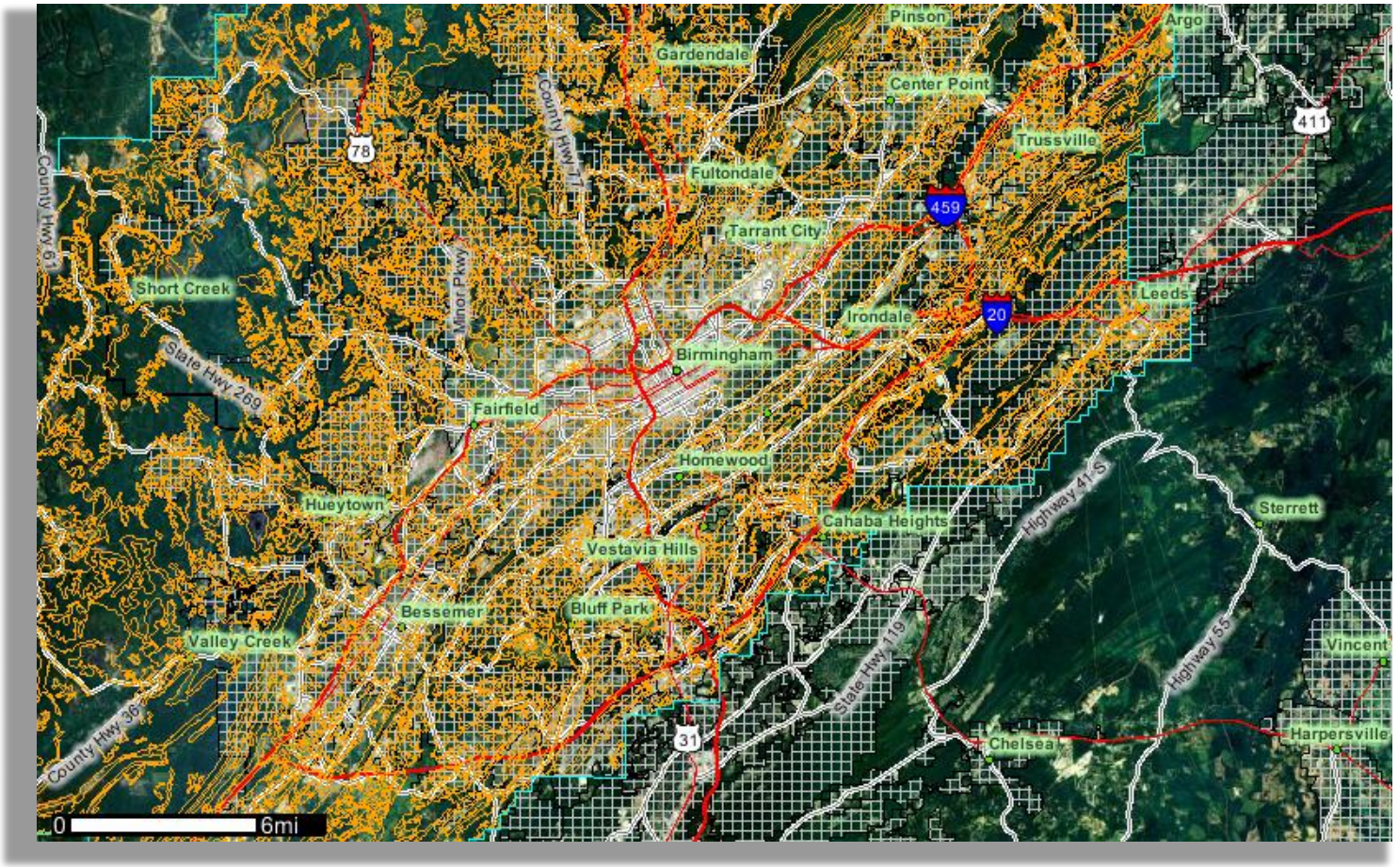
1) Minimize erosion prone steep slopes by using techniques such as terracing.
2) Use native plants that are pest resistant. Plant the right plant in the right area.
3) Manage water runoff by rerouting gutters away from storm drains and maintaining groundcovers between developed areas and waterways (ditches, swales, shorelines).
4) Reduce or eliminate mown lawn in unused areas.
5) Convert excess lawn to meadow or forest.
6) Establish set back distances from pavement, storm drains, and waterbodies. Allow these areas to serve as buffers with disease-resistant plants and minimal mowing.
7) JCDH and the Stormwater Municipalities promote Low Impact Development Design on new structures and retrofits.

Never:

1) Never develop a landscape design without assessing its impact on water quality.
2) Never cause unintended consequences such as
   - Planting large variety trees beneath overhead wires.
   - Blocking site distance at intersections
   - Planting trees with a high water demand (weeping willow) near sanitary sewer pipes and storm sewer pipes.

Related References
-United States Department of Natural Resources Conservation Services Soil Map -Alabama Department of Agriculture -USEPA National Menu of BMPs -CWP Urban Forestry Manual

JEFFERSON COUNTY SOIL MAP



SOURCE: United States Department of Natural Resources Conservation Services Soil Map website http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx.

Standard Operating Procedure for:	
B.5 Storage and Disposal of Fertilizer and Pesticides (Municipal Employees, Jefferson County Employees, and Homeowners)	
Purpose of SOP:	To protect Storm Water by properly storing and disposing of fertilizers and pesticides (herbicides and fungicides). Because storm drain water is not part of a wastewater treatment system, discharge of these chemicals flows untreated into ponds, lakes, rivers, streams, estuaries, and bays.

Always:

1) Store fertilizers and pesticides in high, dry locations, according to manufacturer's specifications and applicable regulations.
2) Fill out PHF storage form below.
3) Clearly label secondary containers.
4) Properly dispose of fertilizers and pesticides according to manufacturer's specifications and applicable regulations.
5) Regularly inspect fertilizer and pesticide storage areas for leaks or spills.
6) Clean up spills and leaks of pesticides and fertilizers to prevent the chemicals from reaching the storm drain system. (SOPs B.12 and B.16)

Whenever Possible:

1) Store pesticides in enclosed areas or in covered impervious containment, preferably in a locked cabinet.
2) Order fertilizers and pesticides for delivery as close to time of use as possible to reduce amount stored at facility.
3) Order only the amount needed to minimize excess or obsolete materials requiring storage and disposal.
4) Use ALL herbicides or pesticides appropriately to minimize the amount of chemicals requiring disposal.
5) Do an annual review of storage area and dispose of old, unusable or "obsolete" fertilizer or pesticides in accordance with applicable regulations (just before your local Household Hazardous Waste Day).
6) Keep a eye out for local recycling centers that will be marked by a JCDH program that is targeted for October 2011.

EPA defines a pesticide as any substance intended for preventing, destroying, repelling, or mitigating any pest. Pest can include insects, animals, unwanted plants, fungi, bacteria, etc. The term applies to insecticides, herbicides, fungicides, etc.

Never:

1) Never dispose of fertilizers or pesticides in storm drains.
2) Never leave unlabeled or unstable chemicals in uncontrolled locations.

Related References	
	-USEPA National Menu of BMPs

Storm Water Management Authority, Inc

1400 SIXTH AVENUE SOUTH. P.O. BOX 2648. BIRMINGHAM, ALABAMA 35202. (205)930-1230

Pesticide, Herbicide, and Fertilizer Storage Facility

Part 1: General Information

Stormwater Municipality: _____ Date: _____

Mayor: _____

Applicator's Department _____

Part 2: Storage Information

Storage Location Address: _____ City: _____

State: _____ Zip: _____

Amount Stored _____ gallons

Brand, Purpose, and Amounts of Chemicals Stored:

Are Storage SOPs followed: Yes No (if no why not)

Stormwater Municipality: _____
Mayor: _____

*If more than 19 chemical stored then start at 1 on another form and continue forward until completed

Pesticides, Herbicides and Fertilizer Inventory

Description	Purpose	Amount (gallons)	Category	Amount Used
1)				
2)				
3)				
4)				
5)				
6)				
7)				
8)				
9)				
10)				
11)				
12)				
13)				
14)				
15)				
16)				
17)				
18)				
19)				

Standard Operating Procedure for:	
B.6 Fertilizing and Turf Health Application (Municipal Employees, Jefferson County Employees, and Homeowners)	
Purpose of SOP:	To protect Storm Water by properly storing, applying, and disposing of fertilizers and by maintaining turf health to reduce diseases.

Always:

1) Store, use, and dispose of all fertilizers and contaminated wastes according to manufacturer's specifications and applicable regulations.
2) Choose seed based on soil types, intended use of area, latest variety research, and/or assessment of past site performance.
3) Check 5-day weather forecast to avoid fertilizing before heavy rain or during a drought.
4) Fill out appropriate form below.

Whenever Possible:

1) Apply fertilizers based on a soil testing program, soil type, turf function, and assessment by qualified personnel (conservation commission or municipal arborist, etc.). See Jefferson County Soil Map above.
2) Avoid fertilizing during a drought or when the soil is dry.
3) Apply fertilizers during periods of maximum plant uptake (usually fall and spring).
4) Avoid combined products such as weed and feed, which do not necessarily target specific problems at the appropriate time.
5) Calibrate application equipment to ensure proper application.
6) If phosphorus fertilizer is used when re-seeding, mix phosphorus into root- zone.
7) Use alternative or environmentally friendly products (See SOP B.15.).
8) Use natural compost and organic fertilizers instead of synthetic fertilizers.
9) Aerate grassed areas to improve drainage and bring more oxygen to the soil.

Never:

1) Never fertilize before a forecasted heavy rainfall.
2) Never apply phosphorus fertilizer on bare soil.
3) Never deposit fertilizer in the water, into storm drains, or onto impervious surfaces (streets and sidewalks).
4) Never apply fertilizer to frozen ground.
5) Never clean up spilled fertilizer by rinsing it with water.

Related References	
	-USEPA National Menu of BMPs

Standard Operating Procedure for:	
B.7 Weed and Pest Control Application (Municipal Employees, Jefferson County Employees, and Homeowners)	
Purpose of SOP:	To protect Storm Water by properly applying pesticides (herbicides and insecticides).

Always:

1) Ensure that pesticides are only applied by personnel certified by AL Department of Agriculture to do so.
2) Apply pesticides according to manufacturer's specifications, the Alabama Department of Agriculture & Industrial Food & Safety Division, Pesticide Management Section, and any local requirements.
3) Clean up any spilled chemicals (See SOPs B.12 and B.16.).
4) Use pesticides only when necessary.
5) Rinse equipment only when necessary and use rinse water to dilute next mix as long as application rates are not exceeded.

Whenever Possible:

1) Use alternative methods to control weeds and pests such as Integrated Pest Management strategies, biorational insecticides (natural soaps and oils) or biological controls. (See SOP B.15.)
2) Mix/load pesticides in an area where spills can be contained.
3) Pull weeds by hand or mechanically.
4) Spot treat affected areas only instead of entire location.
5) Apply pest control at the life stage when the pest is most vulnerable.
6) Choose the least toxic pesticides that still achieve results.
7) Tolerate low levels of weeds.
8) Allow grass to grow 2.5 to 3 inches high, reduce thatch build up and aerate soils.
9) Reduce seed release of weeds by timing cutting at seed set.

Never:

1) Never mix or prepare pesticides near storm drains.
2) Never apply controlled pesticides unless certified to do so.
3) Never apply pesticides before a heavy rainfall.
4) Never discharge rinse water or excess chemicals to storm drain, sewer, or ground surface.

Related References	
	-USEPA National Menu of BMPs

Jefferson County Department of Health and Storm Water Management Authority

1400 SIXTH AVENUE SOUTH. P.O. BOX 2648. BIRMINGHAM, ALABAMA 35202. (205)930-1230

Pesticide, Herbicide, and Fertilizer Application (Municipal Use)

FORM

Part 1: General Information

Stormwater Municipality: _____ Date: _____

Mayor: _____

Applicator's Department _____

Relevant Licenses Secured Yes No License #: _____

Part 2: Precipitation Amount

Time Since last rain (must be at least 24 hours) _____ hrs

Precipitation Chance in 3-day period (estimated 3-day forecast information) _____ % day 1

_____ % day 2

_____ % day 3

Part 3: PHF Information

Estimated Amount Applied Total: _____ gallons

Employee Hours Used in Application _____ hrs

Types Commonly Applied:

* Manufacture, Reciepts of Purchuse, and Purpose should be stated or stapled to document

Were SOPs followed during application: Yes No (if no why state below)

Application Areas:

If PHFs are applied by an outside entity (Jefferson County, State of Alabama, etc..) then contract with outside entity should be stabled to this form when returned.

Jefferson County Department of Health and Storm Water Management Authority

1400 SIXTH AVENUE SOUTH. P.O. BOX 2648. BIRMINGHAM, ALABAMA 35202. (205)930-1230

Pesticide, Herbicide, and Fertilizer Application (Private Applicator)

Application

Part 1: General Information

Stormwater Municipality: _____ Date: _____

Mayor: _____

Applicant's Name _____

Applicant's email address/ Phone number: _____

Applicator Company Name: _____

Mailing Address: _____ City _____

State: _____ Zip: _____

Relevant Licenses Secured Yes No License #: _____

Part 2: Precipitation Amount

Time Since last rain (must be at least 24 hours) _____ hrs

3-day forecast information) _____ % day 1

_____ % day 2

_____ % day 3

Part 3: PHF Information

Estimated Amount Applied Total: _____ gallons

Employee Hours Used in Application: _____ hrs

Type Applied:

Were SOPs followed during application: Yes No (if no why state below)

Application Area:

Standard Operating Procedure for:	
B.8 Mowing and Irrigation (Municipal Employees, Jefferson County Employees, and Homeowners)	
Purpose of SOP:	To protect Storm Water by using proper mowing and watering techniques. Proper mowing and irrigation techniques will reduce organic matter and other pollutants from entering the storm drain system and waterbodies.

Always:

1) Mow only as low as needed for the area's intended use.
2) Vary mowing pattern to minimize ruts and promote even growth.
3) Base irrigation amounts on monitoring for moisture content.
4) Water at appropriate times (when no rain is forecasted and in cooler times of day).
5) Manage leaves, clippings, and compost so that runoff does not enter storm drain system or waterbodies.

Whenever Possible:

1) Allow areas to go to meadow or field and mow once or twice per year rather than every week.
2) Keep mower blades sharpened to avoid damaging grass leaf tissue.
3) Mow when the grass is dry to prevent spread of turf diseases.
4) Sweep lawn clippings and debris instead of using water.
5) Mulch grass clippings using a mulching mower.
6) Fill gas tanks in a controlled location.

Never:

1) Never irrigate based on timers/schedules instead of monitoring for moisture content.
2) Never dump gas, wastes or contaminated water down storm drains.
3) Never refuel or change the mower oil near storm drains.
4) Never leave mower running in one location (to prevent burning and over- cutting of vegetation).

Related References	
	-USEPA National Menu of BMPs

Standard Operating Procedure for:	
B.9 Vehicle and Equipment Storage (Municipal and Jefferson County Employees)	
Purpose of SOP:	To protect Storm Water from petroleum products that may drip or leak from vehicles and equipment being stored or from dirt and sediment that accumulate in the storage

Always:

1) Inspect parking areas for stains/leaks on a regular basis.
2) Use drip pans or adsorbents for leaking vehicles (provide a labeled location to empty and store drip pans).
3) Address any known leaks or drips as soon as possible.
4) Clean up spills.

Whenever Possible:

1) Store vehicles inside where floor drains have been properly connected and registered.
2) Store vehicles on paved areas, and street sweep on a regular basis to remove drips/leaks/dirt, and dispose of street sweepings properly.
3) Maintain vehicles to prevent leaks.

Never:

1) Never store leaking vehicles over a storm drain.

Related References	
	-USEPA National Menu of BMPs

Standard Operating Procedure for:	
B.10 Vehicle and Equipment Washing (Municipal, JCDH, and Jefferson County Employees)	
Purpose of SOP:	To protect Storm Water using proper washing techniques, proper washing locations, and proper disposal of wash water for heavy and light-duty vehicles and equipment.

Always:

1) Operate a closed system with wastewater recycling (like a floor drain discharge to a holding tank), or
2) Discharge to a municipal sanitary sewer, or
3) Obtain a Septic Tank permit from JCDH, or
4) Wash fewer than 30 vehicles per week and discharge to the ground surface, if
   - Good Best Management Practices Rules are used,
   - The discharge is registered through NPDES permitting, and
   - The washwater:
     a) is not from power washing, steam cleaning, engine cleaning, or undercarriage cleaning,
     b) does not contain soaps or other products which contain regulated contaminants, and
     c) does not discharge to a surface water.

Whenever Possible:

1) Use a commercial car wash for light duty vehicles.
2) Obtain and use drain guards (filter inserts) to catch sediments, petroleum products, etc. that might enter the storm drains as a result of vehicle washing.
3) Minimize water and soap use when washing or rinsing vehicles.

Never:

1) Never perform engine or undercarriage washing outside.
2) Never wash vehicles over a storm drain or near drinking water wells.
3) Discharge washwater to a surface water.

Related References	
	-Alabama Department of Environmental Management

Standard Operating Procedure for:	
B.11 Vehicle and Equipment Fueling (Municipal, JCDH, and Jefferson County Employees)	
Purpose of SOP:	To prevent Storm Water contamination originating from vehicle and equipment fueling.

Always:

1) Fuel carefully to minimize drips to the ground surface.
2) Maintain clean fuel dispensing areas using dry cleanup methods.
3) Clearly label and tag all valves to reduce human error.
4) Train employees and subcontractors on proper fueling methods and spill cleanup techniques.
5) Maintain fuel storage tanks in accordance with local, state and federal laws.
6) Have absorbent spill cleanup kits and materials available at fueling areas.
7) Immediately clean up spills and properly dispose of contaminated soil and cleanup materials.
8) When fueling small equipment from portable containers, fuel in a designated area away from storm drains and waterbodies.

Whenever Possible:

1) Install a canopy or roof over aboveground storage tanks and fuel transfer areas.
2) Regularly inspect fueling equipment for corrosion and structural failure, cracks in foundations, and physical damage to container systems.
3) Use designated fueling areas built upon a level impervious surface (hard cement is best). If paved with asphalt, add a protective coating to create an impervious surface, inspect regularly, and street sweep quarterly at a minimum.
4) Protect storm drains from fueling areas using berms and dikes.
5) Use absorbent material or absorbent pads during fueling to collect leaks.

Never:

1) “Top off” fuel tanks (post signs to remind employees).
2) Hose down or bury a fuel spill.

Related References	
	-USEPA National Menu of BMPs

Standard Operating Procedure for:	
B.12 Spill Cleanup (Municipal, JCDH, and Jefferson County Employees)	
Purpose of SOP:	To protect Storm Water by educating employees on proper spill cleanup procedures, state reporting requirements and preventative actions.

Always:

1) Stop the source of the spill, if possible to safely do so.
2) Contain any liquids, if possible to safely do so.
3) Contact the appropriate emergency response number (see below) during normal working hours (8:00 a.m. – 4:00 p.m., Monday - Friday) to report spills.
   - **Jefferson County Emergency Management Agency– Oil and Response (205)254-2039**
   - **National Response Center – Chemical or Oil Spills that Impact Surface Water (800) 424-8802**
   - **USEPA Region 4 –(800)241-1754 or (404)562-9900**
4) Cover the spill with absorbent material such as kitty litter, sawdust, or oil absorbent pads. Do not use straw or water. (See SOP B.16 for adsorbent disposal.)
5) Petroleum spills involve, but are not limited to: crude oil, gasoline, heating oil, various fuel oils, lubricating oil, hydraulic oil, asphaltic residuals.
6) Report a petroleum spill if:
   - The spill is greater than 25 gallons, or
   - The spill cannot be immediately contained, or
   - The spill and/or contamination cannot be completely removed within 24 hours, or
   - There is an impact or potential impact to ground/surface water.
   - **IF IN DOUBT, REPORT THE SPILL**
7) Hazardous materials spills involve non-oil spills that pose a threat to human health or the environment, such as chemical releases.
8) Report any discharge of hazardous waste immediately, (within one hour) to local emergency officials [fire department], then contact the Jefferson County Emergency Management Agency as listed above
9) Contact local fire department _____(phone #).
10) Develop and maintain a Spill Prevention, Control, and Countermeasure (SPCC) Plan if the facility stores more than 1,320 gallons of petroleum.
11) Fit petroleum and chemical storage containers with secondary containment structures.
12) Keep a spill kit in areas where petroleum or hazardous materials are stored.
13) Train employees in spill response procedures and equipment annually.
14) Deploy containment booms if spill could potentially reach a storm drain or waterbody. JCDH is working with local fire departments to develop these maps which should be done by 2015
15) Position mats to contain drips from equipment or vehicles until they can be repaired.

Whenever Possible:

1) Seal the floor with paint to prevent absorption of fluids into concrete.
2) Install low-level or low-pressure alarms and/or cut-off systems on hydraulic equipment.

Never:

1) Never wash a spill into the storm drain or a water body.
2) Never leave a spill without cleaning it up.

Standard Operating Procedure for:	
B.13 Parts Cleaning (Municipal and Jefferson County Employees)	
Purpose of SOP:	To protect Storm Water by practicing proper parts cleaning techniques and disposing of waste cleaners properly.

Always:

1) Perform all cleaning in a designated area to minimize the potential for spills.
2) Store waste cleaners in properly labeled containers in accordance with regulations.
3) Dispose of all waste cleaners properly with a licensed contractor, on a regular basis.
4) Close parts-cleaner lid when it is not in use.

Whenever Possible:

1) The variety of cleaners should be minimized to make recycling and disposal simpler.
2) Use citrus-based cleaners and dispose of properly.
3) Use steam cleaning, pressure washing, or aqueous washers instead of solvents; however wastewater must be discharged to an oil/water separator and the wastewater treatment plant notified, or to a JCDH registered septic tank.

Never:

1) Never dispose of spent cleaners down the floor drains, sinks, storm drain, on the ground or into the air. Disposal by evaporation violates the Alabama Hazardous Waste Rules.
2) Never mix or add spent or fresh solvents to used oil.
3) Never use gasoline as a cleaner or solvent.
4) Never burn spent parts cleaning fluids in a used oil burner.
5) Never use a hand-held cleaner in/near the parts cleaner; never mix cleaners.

Standard Operating Procedure for:	
B.14 Spare Parts Storage	
Purpose of SOP:	To protect Storm Water by properly storing spare parts. Improper storage of materials can result in pollutants and toxic materials entering ground and surface water supplies.

Always:

1) Store spare parts in a designated area.
2) Use drip pans for any parts that are dripping.

Whenever Possible:

1) Store spare parts inside or under cover.
2) Monitor storage areas for staining/leaks on a schedule decided on by the appropriate personnel.
3) Clean the majority of petroleum products from the parts that are to be stored.

Related References	
	-USEPA National Menu of BMPs

Standard Operating Procedure for:	
B.15 Alternative Products Use/Storage/Disposal (All Organizations)	
Purpose of SOP:	To protect Storm Water by using alternative products that are more environmentally friendly.

Always:

1) Ask product suppliers, peers, or regulatory agents if there is a more environmentally friendly alternative, when ordering any product.

Whenever Possible:

2) Use alternative products when deemed appropriate:
   - Instead of solvent-based parts cleaners use citrus–based cleaners or steam/pressure wash to an oil/water separator/holding tank.
   - Instead of herbicides use bark mulch.
   - Instead of fertilizer use compost or manure.
   - Instead of pesticides plant marigolds, onion, or garlic as deterrents; release or attract beneficial insects.
   - Instead of synthetic adsorbents, use corncob or cellulose products for petroleum spills that can be burned for energy recovery.
3) Train employees annually on the benefits of using alternative products.
4) Minimize waste by purchasing recyclable products that have minimal packaging.
5) Use less harmful deicers such as calcium magnesium acetate, potassium acetate, or organic deicers such as Magic Salt™.
6) Use a "pre-mix" of 4 to 1 sodium chloride and calcium chloride, which is the most cost- effective alternative to straight salt.
7) Substitute synthetic fertilizers with natural compost and organic fertilizers to improve soil pH, texture and fertility, and cause less leaching to groundwater.
   - Use no-phosphorus lawn fertilizer.
   - Use natural or certified organic fertilizers with low phosphorus levels (8-2-4, 6-2-4, 9-1-1, 6-1-1).
8) Use slow-release nitrogen fertilizers.
9) Reduce or eliminate mown lawn in areas that are not actively used.
10) Consider converting unused turf to meadow or forest.

Related References	
	-USEPA National Menu of BMPs

Standard Operating Procedure for:	
B.16 Petroleum and Chemical Disposal (Municipal and Jefferson County Employees, Homeowners)	
Purpose of SOP:	To protect Storm Water from petroleum and chemical products due to improper disposal practices.

Always:

1) Maintain tracking and manifest to report to JCDH or Storm Water Management Authority, Inc, where necessary, of chemicals and petroleum products being disposed or recycled off-site.
2) Transports used petroleum and chemical products with a licensed transporter and maintain records for three years.
3) Train employees annually on proper disposal practices.
4) Drain used oil filters for 24-hours before crushing and disposal (disposal in regular trash allowed).
5) Analyze floor drain solids (from sediment trap) for TCLP to determine if hazardous waste or not.
6) Contaminated cloth wipe may be laundered onsite or offsite, liquid free, and stored in a closed, labeled container.

Whenever Possible:

1) Minimize the number of solvents used to reduce the variety of waste generated and to make recycling easier.
2) Use safer alternatives. (see Alternative Products SOP)
3) If burning used oil for on-site heat, analyze for these used oil standards (Arsenic, Lead, Cadmium, Chromium, F- listed Halogens, Flashpoint, PCBs) approximately once every 1,000 gallons.

Never:

1) Never place hazardous waste in solid waste dumpsters.
2) Never pour liquid waste down floor drains, sinks or outdoor storm drain inlets.
3) Never mix petroleum waste and chemical waste.
4) Never dispose of any gasoline-contaminated waste in the regular trash. Dispose of it only as a hazardous waste.

Standard Operating Procedure for:	
B.17 Petroleum and Chemical Handling (Municipal and Jefferson County Employees)	
Purpose of SOP:	To protect Storm Water by properly managing petroleum products and chemicals used by municipalities.

Always:

1) Train employees in hazardous material handling, safety, spill cleanup and reporting on an annual basis.
2) Handle petroleum products and chemicals according to manufacturer's specifications.
3) Conduct oil changes indoors for equipment that fits indoors.
4) Use proper protective equipment.
5) Maintain Material Safety Data Sheets (MSDS) for all chemicals used.
6) Make MSDS sheets available on materials that require special handling, storage and/or disposal.
7) Create a sign-off sheet for employees stating that they know the location of the MSDS(s) and provide to JCDH or Storm Water Management Authority, Inc.
8) Train new employees within six months of hire. A record of this should be kept and given annually to JCDH or Storm Water Management Authority, Inc

Whenever Possible:

1) Assess hazardous material needs to minimize the amount and variety of hazardous material in storage.
2) Keep an inventory of hazardous materials on hand.
3) Transfer materials from one container to another indoors in a well ventilated area.
4) Properly label containers.

Never:

1) Never treat or dispose of hazardous materials unless licensed to do so.
2) Never mix petroleum or chemicals unless directed by manufacturer's instructions.

Related References	
	-USEPA National Menu of BMPs

Standard Operating Procedure for:	
B.18 Petroleum and Chemical Storage – Bulk (Municipal and Jefferson County Employees)	
Purpose of SOP:	To protect Storm Water by properly storing bulk petroleum products and chemicals (containers larger than 55 gallons).

Always:

1) Store materials away from high traffic areas, posted with appropriate signage.
2) Store materials according to manufacturer's specifications in approved containers and conditions.
3) Be prepared for possible spills by having a spill kit nearby.
4) Register ASTs if your facility stores more than 660 gallons of petroleum products (10,000 gallons if used for on-site heating).
5) Develop and use a Spill Prevention Control and Countermeasure (SPCC) plan if storing more than 1,320 gallons of petroleum (required).
6) Store incompatible hazardous materials in separate areas.
7) Inspect storage areas for leaks or drips frequently.
8) Store bulk items within secondary containment areas if bulk items are stored outside.
9) Conduct annual employee training to reinforce proper storage techniques for petroleum and chemical products. Keep record and present to JCDH or Storm Water Management Authority, Inc annually.

Whenever Possible:

1) Store bulk chemicals and petroleum products inside or under cover.
2) Provide secondary containment for interior storage.
3) Cover transfer areas.

Never:

1) Never store bulk chemicals or petroleum products near a storm drain.

Standard Operating Procedure for:	
B.19 Petroleum and Chemical Storage – Small Quantity (All organizations and Homeowners)	
Purpose of SOP:	To protect Storm Water from pollution by properly storing petroleum products or chemicals (containers 55 gallons and smaller).

Always:

1) Store materials away from high traffic areas.
2) Store materials according to manufacturer's specifications (e.g. in a flammable materials storage cabinet).
3) Dispose of unused or waste materials properly.
4) Train employees on proper storage procedures for petroleum and chemical products.
5) Store materials in their original containers to maintain appropriate labeling.
6) Be prepared for spills by having a spill kit nearby.
7) Frequently inspect the storage areas for leaks or spills.
8) Conduct annual employee training to reinforce proper storage techniques for petroleum and chemical products. A list should be provided to JCDH or Storm Water Management Authority, Inc at the end of the permit cycle.

Never:

1) Never store petroleum or chemical products near a floor drain or Storm Water inlet.

Standard Operating Procedure for:	
B.20 Garbage Storage (All Organizations and Homeowners)	
Purpose of SOP:	To protect Storm Water from contamination by properly storing garbage. Garbage and leachate can be transported by Storm Water and enter the storm drain system and receiving waterbodies.

Always:

1) Cover rubbish bins to keep rubbish and leachate in and wind and rain out.

Whenever Possible:

1) Store garbage containers beneath a covered structure or inside to prevent contact with Storm Water. This is done on all food establishments as well by JCDH.
2) Install berms, curbing or vegetation strips around storage areas to control water entering/leaving storage areas.
3) Locate dumpsters on a flat, concrete surface that does not slope or drain directly into the storm drain system.
4) Locate dumpsters and trash cans in convenient, easily observable areas.
5) Provide properly-labeled recycling bins to reduce the amount of garbage disposed.
6) Inspect garbage bins for leaks regularly, and have repairs made immediately by responsible party.
7) Keep bins free of improperly discarded trash.
8) Provide training to employees to prevent improper disposal of general trash.
9) Minimize waste by purchasing recyclable products that have minimal packaging.
10) Request/use dumpsters without drain holes.

Never:

1) Never place hazardous wastes in a dumpster or trash bin.
2) Never place gasoline-contaminated wastes in a rubbish bin (but small quantities of adsorbents from virgin oil spills are acceptable).
3) Never place oil-contaminated materials that release free draining oil into a rubbish bin.

Related References	
	-USEPA National Menu of BMPs

Standard Operating Procedure for:	
B.21 General Facility Housekeeping (All Organizations)	
Purpose of SOP:	To protect Storm Water by maintaining a clean, organized facility.

Always:

1) Keep open areas clean and orderly.
2) Pick up litter.
3) Conduct regular employee training and public education to reinforce proper housekeeping. Keep internal records to provide to Storm Water Management Authority, Inc or JCDH.
4) Remove unused scrap/junk materials.
5) Store hazardous materials as specified by the manufacturer.

Whenever Possible:

1) Store materials and wastes inside or under cover if outside.
2) Substitute less or non-toxic materials for toxic ones.
3) Perform a routine cleaning of the facility.
4) Inspect facility (interiors, exterior, parking areas, etc.) for stains.

Related References	
	-USEPA National Menu of BMPs

Standard Operating Procedure for:	
B.22 Floor Drains (Municipal and Jefferson County Employees)	
Purpose of SOP:	To protect Storm Water from pollution caused by discharges of hazardous materials to the subsurface, ground surface, waterway, or storm sewer through floor drains.

Always:

1) Keep a spill kit in the vicinity of the floor drains.
2) Obtain and use drain mats, adsorbent booms or covers to keep larger spills out of drains.
3) Use floor drains that are (1) connected to a holding tank or (2) connected to the sanitary sewer via an oil/water separator.
4) Keep internal map of floor drains that have regulated contaminants stored or used near them.
5) Register septic tanks with JCDH.

Whenever Possible:

1) Minimize water use or run a dry shop.

Never:

1) Never dump hazardous materials down the floor drains.
2) Never use floor drains if you are unsure of their discharge location.
3) Never store regulated contaminants near a floor drain that discharges directly to the environment.

Standard Operating Procedure for:	
B.23 Painting (All Organizations and Homeowners)	
Purpose of SOP:	To protect Storm Water by properly storing, using and disposing of paint and preparation materials.

Always:

1) Store waste paints, solvent, and rags in sealed containers.
2) Perform abrasive blasting and spray painting in accordance with regulations.
3) Properly clean, store, and dispose of paint and associated waste materials.
4) Train employees on Best management Practices concerning painting activities, cleanup, and disposal.

Whenever Possible:

1) Replace solvent-based paint with less toxic paints such as latex or water-based paints.
2) Practice “source reduction” – buy only the paint that is needed.
3) Use up, donate or recycle unused paint.
4) Use drop cloths under any painting or preparation activity such as scraping or sandblasting.
5) Use techniques such as brushing and rolling to avoid overspray.
6) Use vacuum sanders to collect paint dust.
7) Perform abrasive blasting and spray painting in an enclosed or covered area that is safe for personnel.

Never:

1) Never dispose of paint or waste paint products into the storm drain system, a waterbody, or onto the ground.

Standard Operating Procedure for:	
B.24 Street Sweeping	
Purpose of SOP:	To remove sediment, debris and other pollutants from streets, parking areas, and paved surfaces through regular, properly timed sweeping schedules.

Always:

1) Sweep all publicly accepted paved streets and parking lots at least once per year as soon as possible after snowmelt.
2) Dispose of street sweepings properly (reuse is unrestricted if visual evidence of litter, animal waste, and petroleum contamination is absent).
3) Keep data logs on the mileage of street sweeping conducted in each city to provide to Storm Water Management Authority, Inc or JCDH such as the form below.

Whenever Possible:

1) Start at the "top" of town and work down.
2) Sweep downtown areas more frequently (daily).
3) Perform additional sweeping on a seasonal schedule and document areas swept.
4) Sweep in locations that generate debris, such as construction entrances, sand/salt loading areas, vehicle fueling areas, and vehicle and equipment storage areas on an as needed basis.
5) Street sweep before a major rain event.
6) Use dry vacuum assisted street sweepers (the most effective).
7) Maintain street sweeping equipment for maximum effectiveness.
8) Cover storage areas or locate storage areas where runoff discharges to a buffer.
9) Clean catch basins after streets are swept.

Never:

1) Never store street sweepings in areas where Storm Water could transport fines to the storm drain system or a waterbody.
2) Never purposely sweep into the storm drain system.

Standard Operating Procedure for:	
B.25 Snow Disposal (Municipal and Jefferson County Employees)	
Purpose of SOP:	To protect Storm Water by minimizing the impact of snow piles which contain sand, salt, and trash and which generate concentrated releases of pollutants during spring snowmelt conditions.

Always:

1) Identify sensitive ecosystems prior to disposal and avoid snow disposal in these areas.
2) Store snow at least 25 feet from the high water mark of a surface water.
3) Store snow at least 75 feet from any private water supply, at least 200 feet from any community water supply, and at least 400 feet from any municipal wells.
4) Install a double row of silt fence or equivalent barrier securely between the snow storage area and the high water mark, and inspect periodically throughout the winter season.
5) Clear debris in storage area each year prior to snow storage use.
6) Clear all debris in snow storage area and properly dispose of no later than April 15 or immediately after snowmelt occurs of each year the storage area is in use.

Whenever Possible:

1) Select storage locations that do not drain into surface waters and where environmental impacts of spring melt are minimal.
2) Store snow on areas that are well above the groundwater table on a flat, vegetated slope.
3) Avoid disposal on pavement, concrete, and other impervious surfaces.
4) Do not pile snow in wooded areas, around trees or in vegetative buffers.
5) Divert run-on of water from areas outside the snow piles.
6) Use less harmful deicers such as calcium magnesium acetate, potassium acetate, or organic deicers such as Magic Salt™.

Never:

1) Never dispose of snow in wetlands, lakes, streams, rivers, or near drinking water sources.
2) Never store snow in well-head protection areas (class GAA groundwater).

Standard Operating Procedure for:	
B.26 Deicing Material Storage (Municipal and Jefferson County Employees)	
Purpose of SOP:	To protect Storm Water by properly storing deicing materials. Sand, salt and other deicing materials used during winter can be transported by runoff into the storm drain system and eventually into waterbodies if not stored properly.

Always:

1) Locate sand/salt piles and deicing fluid tanks on flat, impervious sites that are easily protected from overland runoff and away from surface waters.
2) Cover sand/salt and salt piles with a tarp (polyethylene) during non-freezing spring and summer months when indoor storage facilities are not available.
3) Fill out form below on amounts and facility location

Whenever Possible:

1) Contain wash water from trucks used for salting and sanding in a holding tank for disposal or discharge into sanitary sewers.
2) Allow rinse water/melt water to drain into vegetated buffers (away from storm drains).
3) Locate deicing material stockpiles and tanks at least 100 feet from streams and flood plains.
4) Contain Storm Water runoff from areas where salt is stored by using buffers to diffuse runoff before entering waterbodies.
5) Use diversion berms to minimize run-on to storage areas.
6) Cleanup “truck tracks” after storm events.

Never:

1) Never dispose of wash water from sanding and salting trucks into the storm drain system, a waterbody, or septic system drain fields.

Stormwater Municipality: _____

Mayor: _____

Sand or Deicing Storage Location (Municipal use)

Storage Location Address: _____ City: _____ State: _____

Amount Stored _____ yd^3

Are SOPs followed Yes No (if no please explain below)

Mayor: _____

*If more than 197 roadway projects then start at 1 on another form and continue forward until completed

Roadway Projects Inventory

Location	Project Description	Was planned reviewed by JCDH, STORM WATER, or municipality	Permit Number
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			

* Please staple all permits, inspections, and plan review dates to form for annual report

Standard Operating Procedure for:	
B.27 Deicing Material Application	
Purpose of SOP:	To protect Storm Water by improving application techniques of salt, sand, and other deicing materials.

Always:

1) Apply as little sand and salt as needed, and no more than the NHDOT recommended application rates (based on level of service):

Condition	Highways carrying greater than 5,000	Highway/roads carrying less than 5,000 vehicles daily
Snow - 20°F and	250 lbs salt	250 lbs salt per lane mile
Snow – below 20° F	250 lbs salt	Abrasive chemical mix
Sleet/freezing rain	300 lbs salt	300 lbs salt per lane mile

Whenever Possible:

1) Inform salt applicators of sensitive areas, such as public water supplies, lakes, ponds, etc b installing permanent signs.
2) Use de-icing alternatives such as calcium magnesium acetate, sand, etc. in sensitive areas.
3) Use the minimum amount of salt and sand needed to get the job done.
4) Use coarse, clean “washed” sand, which is free of fine particles and dust and easier to clean in the spring.
5) Equip all spreaders with ground-speed controllers.
6) Train drivers to improve application techniques and reduce losses.
7) Consider applying salt in a 4-8 foot strip along centerline of a two-lane road (for less traveled roads).
8) Know when to plow and reapply salt. Allow maximum melting by salt before plowing.
9) Remove snow manually from driveways and sidewalks.
10) Street sweep accumulated salt and sand at the end of the season.

Jefferson County Department of Health and Storm Water Management Authority

1400 SIXTH AVENUE SOUTH. P.O. BOX 2648. BIRMINGHAM, ALABAMA 35202. (205)930-1230

Roadway Form (Municipal Use)

FORM

Part 1: General Information

Stormwater Municipality: _____ Date: _____

Mayor: _____

Contact Person: _____

Part 2: Trash Collection

Estimated Trash Collected in Permit Year: _____ lbs

Estimated Employee Hours collecting trash: hrs

Disposal Method for Trash: _____

(*What landfill was used for disposal, dump tickets should be included if present)

Part 3: Street Sweeping

Street Sweeping for Permit Year: _____ miles

Street Refuse Reused: _____ lbs

Street Refuse Disposal: _____ lbs

Employee hours spent disposing of refuse: hrs

Disposal Method: _____

(*What landfill was used for disposal, dump tickets should be included if present)

Part 4: Sand or Deicing Material

Sand or Salt used for Permit Year: _____ yd^3

Sand or Salt disposal for Permit Year _____ yd^3

Estimated Employee Hours disposing of material: _____ hrs

Disposal Method for Sand or Salt: (*What landfill was used for disposal, dump tickets should be included if present)
**Sand Storage Form should be filled out with location of sand storage
If roadway functions are performed by an outside entity (Jefferson County, State of Alabama, etc..) then contract with outside entity should be stabled to this form when returned.

APPENDIX B

Storm Water Collection Systems Operations

Structural Controls Inspection

General Information	
Facility Name:	Facility's ID:
Facility Address:	Inspection Date:

Inspector's Information		
Name:		Organization:
Phone #:	Fax #:	Email:

Inspection Type (Circle one)			
Semi-Annual	Storm Event	Follow-up	Assessment

Structure Type (Circle one)			
Retention Pond (wet)	Detention Pond (dry)	Underground Detention	Other:

Observations							
Y	N	N/A	Floatables present?	Y	N	N/A	Illegal dumping?
Y	N	N/A	Litter present?	Y	N	N/A	Public hazards?
Y	N	N/A	Sediment accumulation?	Y	N	N/A	Outlet structure clogged?
Y	N	N/A	Debris accumulation?	Y	N	N/A	Outlet structure damaged?
Y	N	N/A	Illegal discharges?	Y	N	N/A	Poor ground cover?
Comments:							
Y	N	N/A	Maintenance required?				

Maintenance Required (Put a check beside work needed)			
	Remove floatables		Remove illegal dumping
	Remove litter		Remove public hazards
	Remove sediment		Unclog outlet structure
	Remove debris		Repair outlet structure
	Remove illegal discharges		Repair ground cover
Comments:			

Signature:

Please Remember to Document Totals Removed As Well as the Units
(Example:6.5 cubic feet of sediment removed)

Structural Controls Maintenance Summary

General Information	
Facility Name:	Facility ID:
Crew Leader:	Organization:
Man hours:	Maintenance date:

Maintenance					
Actions				**Amount Removed**	**Units (bags, cubic foot, etc.)**
Y	N	N/A	Remove floatables?		
Y	N	N/A	Remove litter?		
Y	N	N/A	Remove sediment?		
Y	N	N/A	Remove debris?		
Y	N	N/A	Remove illegal discharges?		
Y	N	N/A	Remove illegal dumping?		
Y	N	N/A	Remove public hazards?		
Y	N	N/A	Unclog outlet structure?		
Y	N	N/A	Repair outlet structure		
Y	N	N/A	Repair ground cover?		

Comments:

Signature:

Standard Operating Procedure for:	
Structural Control Inspection	
Purpose of SOP:	To inspect and maintain structural controls of MS4
ADEM Permit Reference:	Part II.B.1.a.ii.3
Effective Date:	March 2017

Personnel Qualifications

1. Knowledge of the types of structural components associated with storm water management facilities; and,
2. Initial training in the information and data to be collected during an inspection.

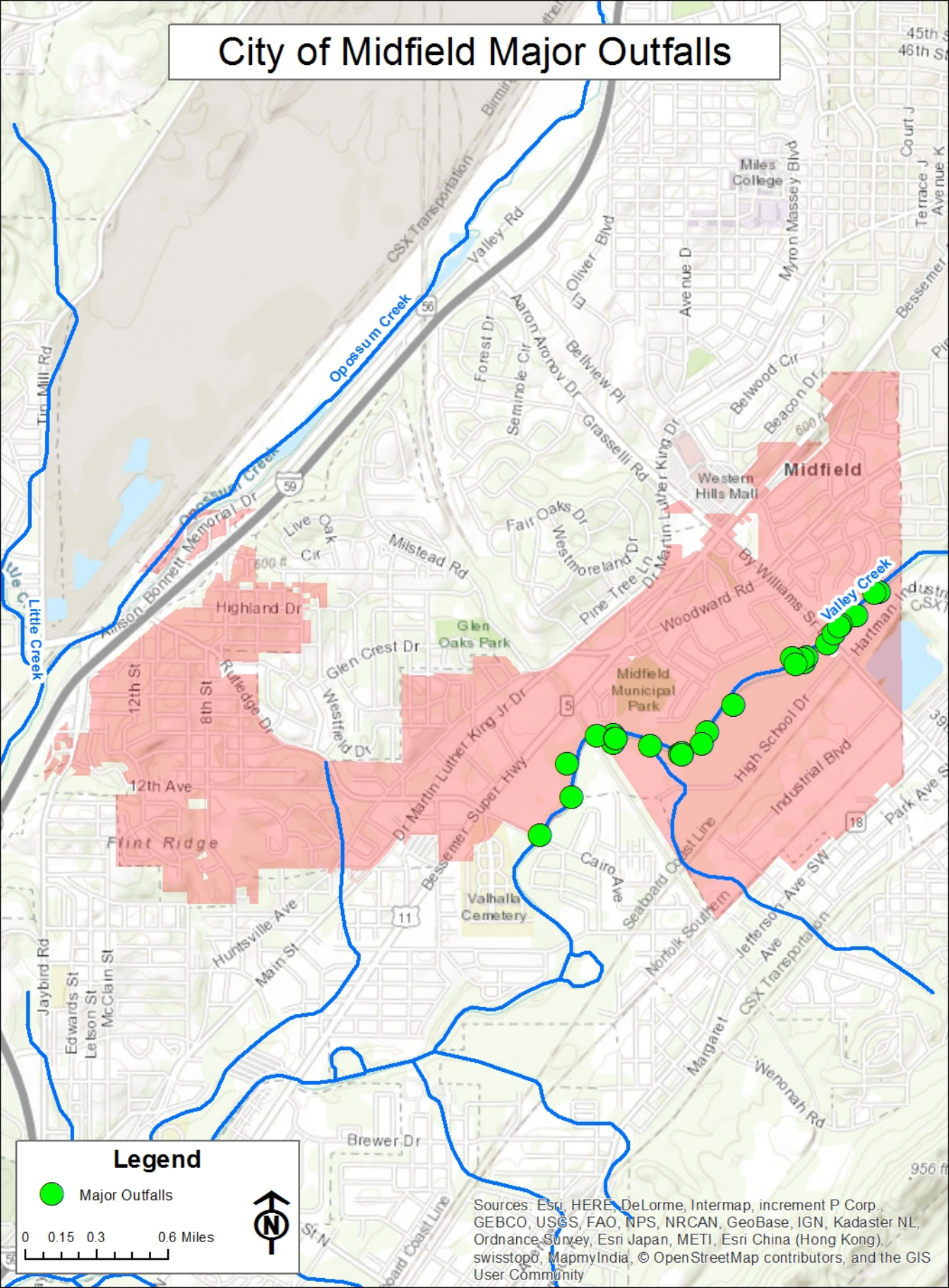
Procedural Steps

1. Obtain the necessary equipment and materials needed to perform the inspection. Equipment and materials shall include the following.
    a. Updated inventory of structural controls
    b. Structural Controls Quarterly Inspection Form or mobile app; and
    c. Camera
2. Facility Information
    a. Verify name, facility ID, location and watershed of structural controls
    b. Select inspection type
    c. Select weather conditions
    d. Select land use
    e. Identify structure type
    f. Identify outlet type
    g. Confirm that it is a structural control
3. Inspection observations
    a. Walk the perimeter of the structural control and inspect for the items listed;
    b. Provide comments as necessary to describe observations; and,
    c. Take pictures to document existing conditions of the structural control.
4. Follow-up actions
    a. Identify if follow-up actions or maintenance activities are required at the structural control;
    b. Check the items that require follow-up actions; and,
    c. Provide comments as necessary to describe the follow-up actions and/or maintenance required.
5. Inspector information
    a. Complete all items; and,
    b. Identify if photographs were taken as part of the inspection and attached to the report.
6. Finalize Structural Controls Inspection Form and include applicable photographs
7. Submit the inspection report on the mobile app to the GIS department. The GIS department will provide reports from this data.

APPENDIX C

Illicit Discharge Detection and Elimination (IDDE)

City of Midfield Major Outfalls



City of Midfield Outfalls

	WATERBODY	LONTITUDE	LATITUDE
1	Valley Creek	-86.91804676300	33.45312487180
2	Valley Creek	-86.91809371730	33.45321527460
3	Valley Creek	-86.92065527160	33.45004043770
4	Valley Creek	-86.90186510650	33.46047112620
5	Valley Creek	-86.90217769540	33.46040585770
6	Valley Creek	-86.90326893700	33.45926813620
7	Valley Creek	-86.90500979320	33.45786693440
8	Valley Creek	-86.90646064450	33.45689612510
9	Valley Creek	-86.91076929820	33.45471772260
10	Valley Creek	-86.91237797810	33.45333070020
11	Valley Creek	-86.91269142730	33.45274992240
12	Valley Creek	-86.91583993300	33.45265504610
13	Valley Creek	-86.91810756830	33.45279590500
14	Valley Creek	-86.92093553890	33.45172313400
15	Valley Creek	-86.92260068460	33.44809752260
16	Valley Creek	-86.90466535390	33.45835550340
17	Valley Creek	-86.90630491920	33.45717060230
18	Valley Creek	-86.90650450900	33.45704827690
19	Valley Creek	-86.90422667510	33.45881334200
20	Valley Creek	-86.90718111810	33.45709551190
21	Valley Creek	-86.91401381820	33.45223801560
22	Valley Creek	-86.91913405780	33.45316400230
23	Valley Creek	-86.90432037510	33.45871177490
24	Valley Creek	-86.91390352820	33.45230114110
25	Valley Creek	-86.91799576310	33.45302612590
26	Valley Creek	-86.90432256050	33.45871593030
27	Valley Creek	-86.90698314460	33.45680040570
28	Valley Creek	-86.91392889530	33.45220014600
29	Valley Creek	-86.91797796430	33.45302922970

DRY SCREENING FIELD DATA SHEET

FIELD SITE DESCRIPTION	
MUNICIPALITY:	LOCATION:
PRIMARY LOCAL LAND USES:	OUTFALL DESCRIPTION:
COMMENTS:	

WEATHER (CIRCLE APPLICABLE)
WEATHER CONDITIONS: CLEAR CLOUDY WINDY CALM RAINY DRY
COMMENTS:

RAIN INFORMATION
TIME SINCE LAST RAINFALL (HOURS):
COMMENTS:

VISUAL OBSERVATIONS (CIRCLE APPLICABLE)
ODOR PRESENT: NONE MUSTY SEWAGE ROTTEN EGGS SOUR MILK OTHER_____
TYPE OF FLOATABLES: NONE VISIBLE NATURAL DEBRIS PLASTICS PAPER OTHER_____
COLOR: CLEAR RED GREEN YELLOW BLUE BROWN GREY OTHER_____
% CLARITY: 0% 25% 50% 75% 100%
DEPOSITS: SILT VEGETATION OTHER_____
VEGETATION CONDITION: NONE NORMAL EXCESSIVE GROWTH INHIBITED GROWTH
BIOLOGICAL: NORMAL MOSQUITO LARVAE BACTERIA ALGAE OTHER_____
COMMENTS:

OUTFALL DESCRIPTION
RIVER SIDE: DOWNSTREAM LEFT DOWNSTREAM RIGHT IN THE CREEK
DIMENSIONS IF PIPE: VERTICAL DIAMETER_____ HORIZONTAL DIAMETER_____UNITS_____
DIMENSIONS IF OPEN CHANNEL: TOP WIDTH_____BOTTOM WIDTH_____DEPTH_____UNITS_____
CONDITION: NORMAL NEEDS REPAIR NEEDS CLEANOUT
NUMBER OF OUTFALLS:_____
MATERIAL: EARTHEN CONCRETE CORRUGATED METAL HDPE OTHER_____
SHAPE: BOX CIRCULAR ELIPTICAL ARCH TRAPAZOIDAL

FLOW ESTIMATION	
FLOW PRESENT: YES NO	
A) WATER SURFACE WIDTH: _____FEET	B) DEPTH OF WATER: _____FEET
C) VELOCITY: _____FT/ SEC	ESTIMATED FLOW RATE (=A*B*C): _____FT^3/ SEC

WATER QUALITY DATA (IF FLOWING)	
PH_____ (S.U.)	WATER TEMPERATURE _____(C°)
DISSOLVED OXYGEN_____(MG/L)	SPECIFIC CONDUCTANCE_____ (µS/ CM)
CHLORINE _____(MG/L)	AMMONIA _____(MG/L)
TURBIDITY _____ (NTU)	
COMMENTS:	

I HEREBY CERTIFY THAT ALL INFORMATION ON THIS SHEET IS ACCURATE TO THE BEST OF MY KNOWLEDGE.			
INSPECTOR #1 (PRINT)		INSPECTOR #2 (PRINT)	
INSPECTOR #1 (SIGNATURE)		INSPECTOR #2 (SIGNATURE)	
DATE:		DATE:	
TIME:		TIME:	

Standard Operating Procedure for:	
IDDE: Notification of Alabama Department of Environmental Management	
Purpose of SOP:	To notify Alabama Department of Environmental Management (ADEM) of a suspect illicit discharge entering the Permittee's MS4 from an adjacent MS4

Always:

1) If source of illicit discharge is not the permittee but an adjacent MS4 contact the following parties:
    1) The adjacent MS4 permit
    2) ADEM

Whenever Possible:

1) Turn over any water quality analysis data and notes.

APPENDIX D

Construction Site Storm Water Runoff Control

Reference #:_____Inspector's Name_____

Site Location:_____ Facility Type: _____

Owner/Operator Information			
Name:			Phone #:
Address:			
Email Address:			
Stage of Construction (Circle one)			
Pre-Construction Conference		Clearing and Grubbing	Rough Grading
Building Construction		Finish Grading	Final Stabilization
Erosion Prevention			
Y	N	N/A	Have all disturbed areas requiring temporary or permanent stabilization been adequately stabilized by an appropriate BMP (erosion control blankets, aggregate, seed, mulch, etc.)?
Y	N	N/A	Are soil stock piles adequately stabilized with seeding and/or proper sediment control measures?
Y	N	N/A	Are utility trenches properly stabilized?
Y	N	N/A	Are perimeter sediment control measures correctly installed, maintained and effective (silt fence, etc.)?
Y	N	N/A	Are finished cut and fill slopes adequately stabilized?
Y	N	N/A	Are storm water conveyance channels adequately stabilized with channel lining?
Sediment Control			
Y	N	N/A	Have sediment control BMP's been constructed as a first step in land disturbing activities (basins, etc.)?
Y	N	N/A	Are sediment control BMP's installed where needed?
Y	N	N/A	Have all sediment control BMP's been repaired and sediment removal been performed?
Y	N	N/A	Do all operational storm sewer inlets have adequate inlet protection?
In-stream Construction			
Y	N	N/A	Is the in-stream construction permitted? (Check to see if U.S.A.C.E permit is needed)
Y	N	N/A	Are current construction practices minimizing channel damage?
Y	N	N/A	Are temporary stream crossings of non-erodible material installed where applicable?
Y	N	N/A	Is necessary re-stabilization of in-stream construction complete?
General Groundskeeping			
Y	N	N/A	Are soil and mud kept off public roadways at intersections with access roads (entrance BMPs)?
Y	N	N/A	Have all temporary BMPs that are no longer needed been removed?
Y	N	N/A	Are trash containment units available?
Y	N	N/A	Is the site clean and orderly?
Y	N	N/A	Is there a concrete/contaminate washout basin in the vicinity?
Violations			
Violation Description:			
Enforcement Response:			
Compliance Timeline:			
Inspector's Signature:			Date:

Please attach any photographic documentation, additional enforcement documentation, or referrals to other Departments or Agencies

APPENDIX E

Spill Prevention and Response

Standard Operating Procedure for:	
Spill Prevention and Response: Spills, Illicit Discharges and Improper Disposals	
Purpose of SOP:	To notify the correct responder in the event of a spill, illicit discharge, or improper disposal

No Immediate Danger-If the event does not pose an immediate threat to life, health or safety

- Call City Hall – (205) 923-7578
- Notify the city through the Contact webpage

Immediate Danger-If the event does pose an immediate threat to life, health, or safety; or if you are uncertain if the event poses a threat:

- Call 911
- Call City Hall – (205) 923-7578

City of Midfield Fire Department Standard Operating Procedure (SOP)

If the event can be managed by Fire Department Personnel:

- If possible, shut off the source of the spill immediately
- Deploy absorbent products and/or diking materials to contain the spill.
- Spills on pervious areas may require removal of soil or other contaminated materials.
- Consult Jefferson County EMA for disposal requirements for all products and materials used to mitigate spills
- If the event requires outside personnel: The Midfield Fire Department will contact Jefferson County EMA and follow EMA protocol. Hazmat and decontamination units will be contacted as needed.

APPENDIX F

Pollution Prevention/Good Housekeeping for Municipal Operations

Quarterly Inspection Checklist

Inspection Area	Status (Please answer with Acceptable/Needs Attention/Not Applicable)	Comments	Date Resolved (if applicable)
Check refuse areas for trash on the ground that could contaminate stormwater or be washed away in stormwater			
Check all exterior vehicle and equipment areas for leaks, spills, drips, or excess dirt - Street sweeping necessary?			
Check all exterior vehicle and equipment areas for leaks, spills, drips, or excess dirt - drip pan use acceptable?			
Check fueling areas for leaks, spills, or drips			
Check exterior petroleum storage areas for leaks, spills, or drips			
Clean-up of tracked sand that might allow stormwater transport of sand			
Check calcium chloride tank for leaks, spills, or cracks			
Check vehicle washing area for excess sediment or wastes			
Other:			
Other:			

Instructions: This form needs to be used for regular (quarterly) inspections at vehicle/equipment maintenance facilities. More information on pollution prevention and good housekeeping can be found in Chapter 3 of the 2011 Guidelines and Standard Operating Procedures Manual (SOP manual)

Municipality_____Division_____Date_____

Standard Operating Procedure for:	
Pollution Prevention/Good Housekeeping for Municipal Operations: Special Events	
Purpose of SOP:	To identity the ways the city reduces the amount of trash entering the MS4 as well as the waters of the State.

City Policy for Special Events

- Provide extra trash receptacles for event to reduce litter.
- Provide recycling receptacles during an event to reduce litter.
- Provide extra personnel during event to pick-up litter during and after event.
- Cleanup event area within 24 hours.

APPENDIX G

Industrial Storm Water Runoff

City of Midfield Industrial and High Risk Facilities

NAME	STREET ADDRESS	ZIP	LONGITUDE	LATITUDE
ADAMSON WEST	506 BESSEMER SUPER HWY.	35228	-86.917597	33.456942
DRIVE TIME AUTO	549 BESSEMER SUPER HWY.	35228	-86.919447	33.456916
JEFF'S AUTO REPAIR	587 BESSEMER SUPER HWY.	35228	-86.922124	33.454106
C. RAY TIRE	34 PHILLIPS DR.	35228	-86.908620	33.463206
COOL CARS	500 BESSEMER SUPER HWY.	35228	-86.917029	33.457400
PRUITT'S AUTO REPAIR	500 BESSEMER SUPER HWY.	35228	-86.917029	33.457400
INTERNATIONAL AUTO	650 BESSEMER SUPER HWY.	35228	-86.924437	33.450341
PERFECT STROKE PAINT & BODY	574 BESSEMER SUPER HWY.	35228	-86.921130	33.453562
CITGO	399 B.Y. WILLIAMS SR. DR.	35228	-86.908700	33.461850
CIRCLE K	603 BESSEMER SUPER HWY.	35228	-86.910845	33.463454
POP IN & OUT	5301 BESSEMER SUPER HWY.	35228	-86.927784	33.446902
FUEL STOP	5430 WOODWARD RD.	35228	-86.933603	33.449581
CHEVRON	5300 BESSEMER SUPER HWY.	35228	-86.928534	33.447238
DISCOUNT CAR WASH	205 BESSEMER SUPER HWY.	35228	-86.914083	33.462463
WOODFIELD SQUARE CAR WASH	625 BESSEMER SUPER HWY.	35228	-86.924053	33.452298
DIAMOND RUBBER	4000 50TH STREET SW	35228	-86.909121	33.446219
BIRMINGHAM HOT METAL COATINGS	1513 MIDFIELD INDUSTRIAL BLVD.	35228	-86.902690	33.452974
REPUBLIC SERVICES	3950 50TH STREET SW	35228	-86.911634	33.445329

Stormwater Discharge Inspection for Industrial and Commercial Facilities

Inspection Team:	Date:	Time:
Facility Name:	Facility Contact and Title:	NAICS code:
Facility Street Address**:**	City:	Zip:
Phone Number:	Fax Number**:**	
Business License #:	Facility Size (acres):	
Provide a description of facility and the nature of work performed.		
Provide a description of significant materials that are currently, or were formerly, treated, stored or disposed outside the facility or commercial establishment; materials management practices currently used to minimize contact of these materials with storm water runoff; and a description of any treatment the storm water receives prior to discharge.		
Cleanup schedule for debris, material storage areas, garbage storage or disposal areas, or other areas that have the potential to pollute storm water		

Description of plan of instruction, to employees of all levels, in ways to prevent storm water pollution. Identify specific periodic dates for such training.
Provide a site map showing existing buildings, parking, drives, type of each impervious surface, ditches, pipes, catch basins, drainage basin limits, area of facility, discharge points from the property or to Community Waters, and the name of the receiving waters.
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system design to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Printed Name of Inspection Team Member:	Title:
Signature:	
Printed Name of Inspection Team Member:	Title:
Signature:	