

Storm Water Management Program Plan September 2018

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City of Helena, Alabama
Individual Phase I – Municipal Separate Storm Sewer System
(MS4) Permit

NPDES Permit No. ALS000012



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1.0 Introduction

The Storm Water Management Program (SWMP) Plan is required by Part II of the Alabama Department of Environmental Management (ADEM) National Pollutant Discharge Elimination System (NPDES) Individual Permit ALS000012 for discharges from the City of Helena (City) municipal separate storm sewer system (MS4). The goal of the MS4 Storm Water Program is to reduce Non-Point Source (NPS) pollution, which occurs from rain runoff from various sites.

1.1 Permit History

In 1987, the EPA was required under Section 402 (p) of the Clean Water Act (40 CFR Part 112.26) to establish final regulations governing storm water discharge permit application requirements.

In 1996, the first five-year MS4 permit, NPDES Permit No. ALS000003, was issued to Shelby County and eight additional Co-Permittees, including the City of Helena. NPDES Permit ALS000003 covered all areas within the corporate boundaries of the City of Helena. In October 2001 a second five-year permit was issued and administratively extended through order of ADEM. Shelby County acted as lead permittee for the Shelby County Cahaba River Basin MS4 Permit from 1996-2015.

Upon expiration of the Shelby County MS4 Permit, ADEM required all of the previous Co-Permittees to apply for individual NPDES permits. ADEM determined that the City of Helena should have an Individual Phase I Permit. In March of 2015 the City met with ADEM to discuss the transition to an Individual Phase I Permit. The City of Helena received a draft NPDES permit on September 9, 2015. At this time the draft version of Individual NPDES Permit ALS000012 was filed under PUBLIC NOTICE - 605. Subsequently a 30 day comment period was held before ADEM issued the final permit. On December 4, 2015, ADEM made a final determination to issue the City of Helena an individual permit.

Individual Phase I NPDES Permit No. ALS000012 for storm water discharges from the Helena MS4 was issued to the City of Helena with an effective date of **January 1, 2016**. The Phase I permit replaces coverage provided by NPDES Permit ALS000003 previously issued to the Shelby County Commission and Co-Permittees. Individual Permit ALS000012 now covers all areas within the corporate boundaries of the City of Helena located within the Cahaba River drainage basin. The permit will expire on **December 31, 2020**. A copy of the individual Phase I NPDES Permit is included in Appendix B.

1.2 Helena MS4 Area

The Helena MS4 applies to the corporate boundaries of the City of Helena within the Cahaba River drainage basin. The Helena MS4 comprises approximately 21.5 square miles. A map outlining the approximate boundary of the Helena MS4 Area is included in Appendix A as Figure 1.

According to the 2010 Census, the City of Helena has a total population of 16,793, all of which are included within the Helena MS4 area.



2.0 SWMPP Development, Review, and Update

The City's SWMP is designed to implement the controls necessary to reduce pollutants to the MS4. The program is built around the ten minimum control measures listed below and wet weather monitoring and sampling of the Cahaba River and Buck Creek:

- 1) Storm Water Collection System Operations
- 2) Public Education and Public Involvement on Storm Water Impacts
- 3) Illicit Discharge and Elimination (IDDE)
- 4) Construction Site Storm Water Runoff Control
- 5) Post-Construction Storm Water Management in New Development and Re-Development
- 6) Spill Prevention and Response
- 7) Pollution Prevention/Good Housekeeping for Municipal Operations
- 8) Application of Pesticides, Herbicides, and Fertilizers (PHFs)
- 9) Oils, Toxics, and Household Hazardous Waste Control
- 10) Industrial Storm Water Runoff

Details of the City's work toward each of these measures are outlined in subsequent sections.

The SWMPP is in a continual state of review and revision as feedback is received from ADEM, the public, and from monitoring results and as new storm water management best practices are implemented. Updates to the SWMPP will be made at least annually and provided in the Annual Report. Modifications made outside of that cycle will be provided to ADEM separately.

2.1 Responsible Party

The City's Building, Planning, and Development Department is responsible for the coordination and implementation of the Storm Water Management Program Plan. Coordination between City departments is important to the City's implementation of the SWMP.

2.2 Record Keeping

The SWMPP shall be retained for at least five (5) years after coverage under the Individual Phase I permit is terminated. The following records shall be maintained for at least three (3) years following termination of permit coverage:

- Records of all monitoring information
- Copies of all reports required by the permit
- Records required by the permit
- Records of all other data required by or used to demonstrate compliance with the permit



3.0 SWMP Elements

3.1 Storm Water Collection System Operations

The City owns and maintains two structural controls: a detention pond located at the end of Old Kendrick Road in (and for) the Laurel Woods Subdivision, and a retention pond at Joe Tucker Park. Three of the structural controls mentioned in the previous Shelby County SWMPP as related to the City of Helena are not owned and/or maintained by the City. Structural controls located on Shelby County Road 95 at the Shoppes of Dearing Downs and on Shelby County Road 58 in Village Parrish Subdivision are privately owned and maintained. The detention basin located on Alabama Highway 261 North at Chadwick Subdivision has been de-annexed and is now owned and maintained by the City of Pelham. A map of the structural controls that are owned, operated and maintained by the City is provided as Figure 2 in Appendix A, and the inspection checklist is provided in Appendix F.

The following activities and practices implemented by the City are aimed at reducing NPS pollution from structural controls in the MS4:

Activity	Schedule	Measurable
Review and revise inspection SOP and form	As needed	Documents to be provided in Annual Report
Inventory/Map maintenance	Ongoing	Map to be provided in Annual Report
Inspect structural controls	Semi-annual	Inspection records/Number of inspections
Repair of controls	As needed	Work records
Debris removal	As needed	Estimated quantity of material removed

The City does not use contracted maintenance currently, but those records will be included if new contracts are put in place.



3.2 Public Education and Public Involvement

The City aims to provide the general public and business owners with the education and tools needed to reduce their impact on pollution in the MS4. This includes the dissemination of information to these groups aimed at reducing their pollution contribution, but also educating them on recognizing problems that should be reported. As individuals are made aware of issues related to storm water management, they become partners with the City in the implementation of this plan and the MS4 is benefitted.

Example materials are attached in Appendix D.

The following activities and practices implemented by the City are aimed at involving the public in reducing NPS pollution in the MS4:

Activity	Schedule	Measurable
Seek public input on SWMPP	Completed (6/27/2016)	Public meeting documentation
	Ongoing; annually seek input at council meeting and through website posting	Documentation of comments and responses
Distribute information to general public; flyers and pamphlets will be placed at many public locations, made available at City Hall and on posted the City's storm water management web page	Ongoing; initial upload and distribution in first year of permit	Examples of materials
Distribute issue-specific information to targeted business-owners, contractors and developers ; provided as encountered and information/tools posted on the City's storm water management web page	Ongoing; initial upload and distribution in first year of permit	Examples of materials
Participate in the clean-up days put on by Renew our Rivers, the Cahaba River Society and other groups; assist in debris removal and provide educational materials at event	Annual/as scheduled (min 1/yr)	Record of event and participation



Activity	Schedule	Measurable
Label storm inlets and post signs at public access points	Ongoing; inventory and labeling of storm drains continues. All storm drains on new developments will have "Dump No Waste/Drains to Waterways" or similar message on manhole covers or inlet labels.	Photos of labels and signs, and number of new labels and signs installed
Create/update page on City website to house SWMPP, educational materials, etc.	Ongoing updates	Screenshots

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3.3 Illicit Discharge Detection and Elimination

The City’s program to detect and eliminate illicit discharges in the MS4 consists of several strategies aimed at establishing legal prohibitions and recourse, maintaining accurate outfall information, and regular screening. The program is also closely coordinated with other SWMP elements, primarily through the education and involvement of the public. The City has retained digital maps created and maintained by previous lead permittee, and has classified each outfall. The current outfall locations map is shown as Figure 3 in Appendix A.

The 2004 EPA guidance manual for Illicit Discharge Detection and Elimination will be used as the protocol basis. The form used during inspections is provided in Appendix F.

If a suspected illicit discharge enters the City’s MS4 boundary from an adjacent MS4, the City will notify the adjacent MS4 and the ADEM Water Division within 48 hours of observing the suspected illicit discharge. The Standard Operating Procedure for this action is found in Appendix E.

The public can report an illicit discharge by filling out a storm water issue form at City Hall.

The following activities and practices implemented by the City are aimed at reducing NPS pollution from illicit discharges in the MS4:

Activity	Schedule	Measurable
Mapping of major outfalls, waters of the State, and MS4-owned structural BMPs	Ongoing	Map provided in Appendix A
Review and revise City Storm Water Management ordinance	Annual	Ordinances provided in Appendix C
Dry weather screening, tracing and eliminating illicit discharges	20%/year	List of inspected outfalls and any enforcement actions
Staff training on IDDE	Annual	Training records
Post ordinance to website	Annual, as revised	Screenshot
Solicit public reporting of suspected illicit discharges	Ongoing	Documentation of reports and actions; quantify in the annual report



3.4 Construction Site Storm Water Runoff Control

All applicable construction sites are required to obtain coverage under ADEM general permit ALR10000; other sites are required by City ordinance to obtain a City of Helena Grading and Clearing Permit prior to commencement of land disturbing activities.

Applicants for a City permit for land disturbance and construction are required to submit structural and non-structural storm water management BMPs for their site. These BMPs are reviewed and approved by a qualified professional prior to construction. Best Management Practices must incorporate structural and non-structural controls as described in the Alabama Soil and Water Conservation Committee (ASWCC) handbook.

Land clearing and construction sites in the project area are monitored by trained City inspector to ensure compliance with the appropriate Best Management Practices, the site-specific storm water management plan, and/or the City's storm water management ordinance. On all residential and commercial building construction projects, City inspectors perform a storm water inspection every time they are on site for other required inspections (framing, electrical, plumbing, etc.). Larger residential subdivision construction projects, which are commonly covered by individual NPDES Construction Storm Water permits, are also inspected routinely by City inspectors.

The public can file a complaint by filling out a storm water issue form at City Hall.

The form used for inspections is attached in Appendix F.

The following activities and practices implemented by the City are aimed at reducing NPS pollution from construction activity in the MS4:

Activity	Schedule	Measurable
Review and revise City Storm Water Management ordinance, including Enforcement Response Plan	Annual	Ordinance provided in Appendix C
Develop inspection and enforcement SOP/form	Complete	SOP/form provided in Appendix F
Conduct inspections of construction sites	Ongoing, during every visit to construction site	Summary of inspection and enforcement actions
Staff training on inspections and enforcement (QCI)	Annual	Training records
Provide relevant educational materials to operators	At beginning of each project and as needed	Example materials
Post ordinance to website	Annual, as revised	Screenshot
Solicit public reporting of complaints	Ongoing	Documentation of complaints



3.5 Post-Construction Storm Water Management

The City’s program to address the discharge of pollutants in post-construction storm water runoff is encompassed in the plan reviews that take place during the permitting processes laid out in the City’s Storm Water Management Ordinance and the City’s Subdivision Regulations. The City Engineer reviews plans to ensure the requirements of City of Helena MS4 Permit Part II.B.5 are met, including:

- Minimize the amount of impervious surfaces;
- Preserve and protect ecologically sensitive areas that provide water quality benefits;
- Provide vegetated buffers along waterways and reduce discharges to surface waters from impervious surfaces such as parking lots;
- Implement policies to protect trees, native soils, and other vegetation;
- Minimize topsoil stripping and compacted soils, where feasible;
- Requiring landowners to develop and maintain best management practices aimed at maintaining pre-construction hydrology after construction; and
- Encouraging the use of LID and green infrastructure.
- Requiring submittal and review of as-built plans of new developments to confirm that post-construction storm water measures were constructed as planned.

As-built certification is required within 120 days of completion of the project, along with evidence of provisions for long-term operation and maintenance. This may include:

- A signed statement accepting responsibility for maintenance until that responsibility is transferred to another party,
- Written conditions in the sales or lease agreement that require the assumption of responsibility,
- Written conditions in covenants or restrictions assigning responsibility to a home owner’s association,
- Other legally enforceable agreement that assigns permanent responsibility for maintenance.

As part of these maintenance agreements, inspection reports are due to the City annually by October 31 for inspections performed by September 30 of a given year.

A map of the private structural controls is shown in Figure 2 in Appendix A.

The following activities and practices implemented by the City are aimed at reducing NPS pollution from new residential and commercial development in the MS4:

Activity	Schedule	Measurable
Develop a Post-construction Storm Water Management Program	Completed; December 31, 2016	Revised SWMPP
Privately-owned structural control inspections	Annual	Inspection records



Activity	Schedule	Measurable
Review and revise ordinance	Annual, as needed	Ordinance provided in Appendix C
Mapping of post-construction structural controls	Ongoing (currently up to date)	Map provided in Appendix A
Post ordinance to website	Annual, as revised	Screenshot

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3.6 Spill Response Program

The City works closely with the Shelby County Emergency Management Agency (EMA) and Helena Police and Fire Departments on any spills in the MS4. The County EMA is equipped and trained to provide environmental protection services.

In the event of a spill, the Helena Fire and Police Departments initially respond. For larger spills that could affect storm water quality, the City Building Official and the Shelby County EMA are notified and respond to coordinate efforts to address the impacts and track/map the spill. The City of Helena SOP regarding spills and spill response is attached in Appendix E.

The following activities and practices implemented by the City are aimed at reducing NPS pollution from spills of hazardous materials in the MS4:

Activity	Schedule	Measurable
Review/Revise formal Spill Prevention and Response Plan	Annual	Plans provided in Appendix E
Track and map any spills that occur	As needed	Map and information to be provided in Annual Report
Train staff on spill prevention and response	Annual	Training records

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3.7 Pollution Prevention / Good Housekeeping

The City's in-house operations are also important to consider when minimizing pollution in the MS4. The City's program to monitor and prevent pollution from its own activities includes trash removal, training, and inspections. SOPs covering City activities with the potential to harm storm water are attached in Appendix E.

The City Shop/Public Works facility and Wastewater Treatment Plant currently have their own NPDES permits and their discharge potentials are regulated as part of those permits. The majority of the City's potential pollution activities (e.g. fuel storage, etc.) occur at these facilities.

The removal of trash from the waterways and tributaries in the MS4 is a key priority that is addressed in the short term through partnerships with local organizations that hold clean-up days. The City supports and facilitates these events. As a long term strategy to address pollution of waterways, the City will implement pollution prevention strategies by providing trash receptacle at public events and parks.

The following activities and practices implemented by the City are aimed at reducing NPS pollution from the City's operations:

Activity	Schedule	Measurable
Inventory/Map City facilities with pollutant discharge potential	Annual (currently up to date)	Map provided in Appendix A
Provide additional trash receptacles and trash removal services for City events and storm water protection (e.g. Buck Creek Festival, 4 th of July, First Fridays, etc.)	Ongoing	Estimated quantity of material removed
Provide trash and pet-waste receptacles and removal at the Helena Sports Complex	Ongoing	Estimated quantity of material removed
Removal of trash from waterbodies by partnering with environmental groups on clean up days	Regular events	Estimated quantity of material removed/manhours
Inspect City facilities for storm water management issues	Annual	Summary of inspection results; number of inspections
Review and revise SOPs for good housekeeping practices performed by the City	Annual	SOPs provided in Appendix E



Activity	Schedule	Measurable
Train staff on storm water management issues related to their jobs	Annual	Training records
Evaluate potential to retrofit controls with pollutant removal capabilities	Annual	Results

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3.8 Application of Pesticides, Herbicides, and Fertilizers (PHFs)

The City limits its use of pesticides, herbicides, and fertilizers (PHFs) as much as possible. The City applies fertilizer and herbicide at City parks and ball fields when necessary.

- Helena Sports Complex - 110 Sports Complex Dr, Helena, AL 35080
- Cahaba Lily Park - 3200 Hwy 52, Helena, AL 35080
- Joe Tucker Park - 230 Tucker Rd, Helena, AL 35080
- Penhale Park – Penhale Park Road, Helena, AL 35080

Emerald Lawn (OTPS License #14059) is contracted to apply chemicals at the parks and ball fields.

The City’s use and storage of PHFs is minimal, but the overall PHF program is assessed and inspected in coordination with the previous Municipal Operations/Good-housekeeping permit element.

The City conducts mosquito spraying, as needed during the summer months, in order to address public health concerns.

The following activities and practices implemented by the City are aimed at reducing NPS pollution from PHFs in the MS4:

Activity	Schedule	Measurable
Inventory/map PHF application areas	Annual	Map provided in Appendix A
Inventory stored PHFs and inspect storage facilities	Annual	Inspection results
Train staff in use, storage, and disposal of PHFs	Annual	Training records



3.9 Oils, Toxics, and Household Hazardous Waste Control

The City currently provides notice to citizens and businesses of opportunities to safely dispose of hazardous materials. Shelby County hosts an annual household hazardous waste collection day, and local businesses provide used oil collection services.

The following activities and practices implemented by the City are aimed at reducing NPS pollution from hazardous materials in the MS4:

Activity	Schedule	Measurable
Promote local collections days in Shelby County and other nearby authorities	As scheduled	Estimated quantity of material collected
Staff training on waste control	Annual	Training records
Provide relevant educational materials to public via postings and website	Ongoing	Example materials; screenshot

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3.10 Industrial and High-Risk Runoff

The City houses several businesses that may be considered high-risk sites and/or have the potential for pollutant contribution to the MS4. These sites are mapped on Figure 4 in Appendix A. Inspections will be performed annually using the form in Appendix F.

Sites inspected this year include:

- Helena Industrial Park
 - Shelby Machine
 - Alabama Bag
 - Florida Coastal Colors
 - Scott Machining
 - Metro Goals
 - Cornerstone Restoration
 - Dudley Jackson
- MGM Machining

There are no municipal waste landfills or treatment, storage, and disposal facility located in the MS4, but there are several industrial facilities in the MS4 that are covered by NPDES permits:

NPDES	Facility	Address
AL0001996	HELENA QUARRY	237 LIMESTONE DRIVE
AL0023116	HELENA WWTP	590 OLD TOWNE PLACE
AL0061603	HELENA TANK FARM	900 SHELBY COUNTY ROAD 52, E
ALG340370	HELENA TANK FARM	900 SHELBY COUNTY ROAD 52, E
ALG020005	HELENA ASPHALT PLANT	3110 HELENA ROAD
ALG110269	READY MIX USA, LLC - HELENA FACILITY	6366 HELENA RD-HWY 261

The following activities and practices implemented by the City are aimed at reducing NPS pollution from industrial sites located in the MS4:

Activity	Schedule	Measurable
Update inventory/map of industrial and high-risk facilities	Annual	Map provided in Appendix A
Develop/Review and revise SOP/form for inspection of facilities	Annual/ongoing	SOPs provided in Appendix E



Activity	Schedule	Measurable
Collect copies of all NPDES permit information for facilities located in the City	Ongoing	Summary provided in Annual Report
Inspect facilities that are not covered by individual NPDES permit	Annual	Inspection records

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4.0 Monitoring Programs

Monitoring locations for the Cahaba River and Buck Creek have been established for the Helena MS4. Monitoring of each waterbody will occur on a semi-annual basis as stated in Part III, Section A.1 of the MS4 Permit, and the sampling procedures outlined in Part III, Section B of the NPDES MS4 Permit will be employed.

Samples from the Cahaba River will be taken from the location where the river crosses under Shelby County Road 52 (33°17'4.96"N, 86°52'57.15"W). The Buck Creek sampling point will be located where Buck Creek crosses under Alabama Highway 261 just below Buck Creek Dam (33°17'50.76"N, 86°50'35.97"W). See Figure 5 in Appendix A.

Grab samples will be collected from the Cahaba River location and analyzed for the following parameters at the frequencies shown:

Parameter	Frequency
E. Coli	Semi-annually
Total Nitrogen	Semi-annually
Total Phosphorus	Semi-annually
Total Suspended Solids	Semi-annually
Temperature	Semi-annually (first year); Annually (remainder of permit)
pH/ORP	Semi-annually (first year); Annually (remainder of permit)
Turbidity	Semi-annually (first year); Annually (remainder of permit)
Conductivity	Semi-annually (first year); Annually (remainder of permit)
Dissolved Oxygen	Semi-annually (first year); Annually (remainder of permit)
Fecal Coliform	Semi-annually (first year); Annually (remainder of permit)
Ammonia Nitrogen	Semi-annually (first year); Annually (remainder of permit)
BOD	Semi-annually (first year); Annually (remainder of permit)
COD	Semi-annually (first year); Annually (remainder of permit)
Hardness	Semi-annually (first year); Annually (remainder of permit)
Nitrate/Nitrite Nitrogen	Semi-annually (first year); Annually (remainder of permit)
Oil and Grease	Semi-annually (first year); Annually (remainder of permit)
Total Dissolved Solids	Semi-annually (first year); Annually (remainder of permit)
Total Kjeldahl Nitrogen	Semi-annually (first year); Annually (remainder of permit)



Grab samples will be collected from the Buck Creek location and analyzed for the following parameters at the frequencies shown:

Parameter	Frequency
Fecal Coliform	Semi-annually
Total Nitrogen	Semi-annually
Total Phosphorus	Semi-annually
Total Suspended Solids	Semi-annually
Temperature	Semi-annually (first year); Annually (remainder of permit)
pH/ORP	Semi-annually (first year); Annually (remainder of permit)
Turbidity	Semi-annually (first year); Annually (remainder of permit)
Conductivity	Semi-annually (first year); Annually (remainder of permit)
Dissolved Oxygen	Semi-annually (first year); Annually (remainder of permit)
E. Coli	Semi-annually (first year); Annually (remainder of permit)
Ammonia Nitrogen	Semi-annually (first year); Annually (remainder of permit)
BOD	Semi-annually (first year); Annually (remainder of permit)
COD	Semi-annually (first year); Annually (remainder of permit)
Hardness	Semi-annually (first year); Annually (remainder of permit)
Nitrate/Nitrite Nitrogen	Semi-annually (first year); Annually (remainder of permit)
Oil and Grease	Semi-annually (first year); Annually (remainder of permit)
Total Dissolved Solids	Semi-annually (first year); Annually (remainder of permit)
Total Kjeldahl Nitrogen	Semi-annually (first year); Annually (remainder of permit)



5.0 Agency Certification

I certify under penalty of law that this Storm Water Management Program and all attachments pertaining to the City of Helena Municipal Separate Storm Sewer System (MS4) were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated 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 fine or imprisonment for knowing violations.

Mark R. Hall, Mayor
City of Helena, Alabama

Date

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SWMPP Appendix A - Figures

Figure 1 – Helena MS4 Area

Figure 2 – City-Owned and Private Structural Controls

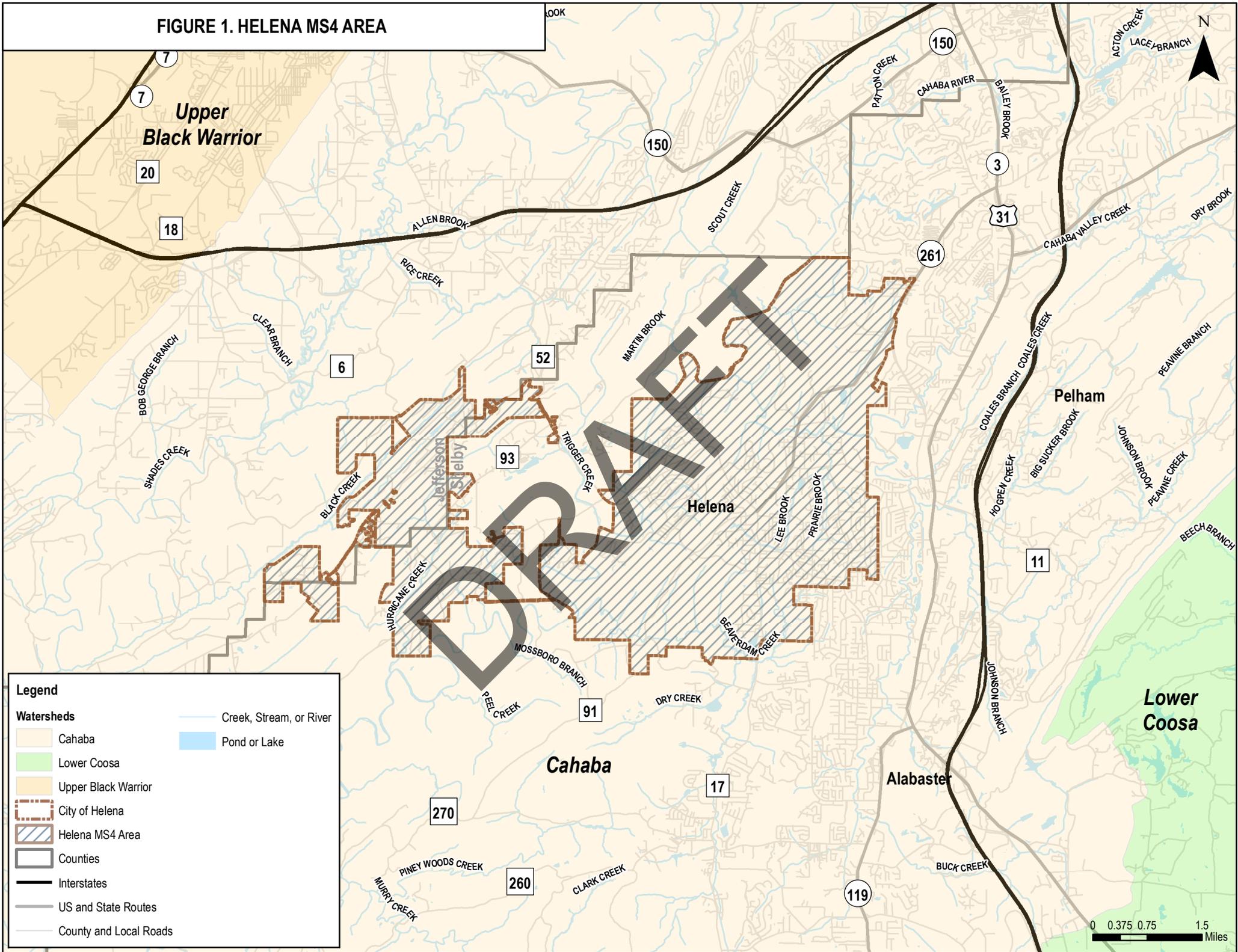
Figure 3 – Helena MS4 Major Outfall Locations and Inspections

Figure 4 – Industrial and Municipal Operation Sites

Figure 5 – Wet Weather Monitoring Sites

Figure 6 – PHF Application Map

FIGURE 1. HELENA MS4 AREA



Legend

Watersheds

- Cahaba
- Lower Coosa
- Upper Black Warrior
- City of Helena
- Helena MS4 Area
- Counties
- Interstates
- US and State Routes
- County and Local Roads

Creek, Stream, or River

Pond or Lake

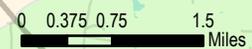


FIGURE 2. CITY-OWNED AND PRIVATE STRUCTURAL CONTROLS

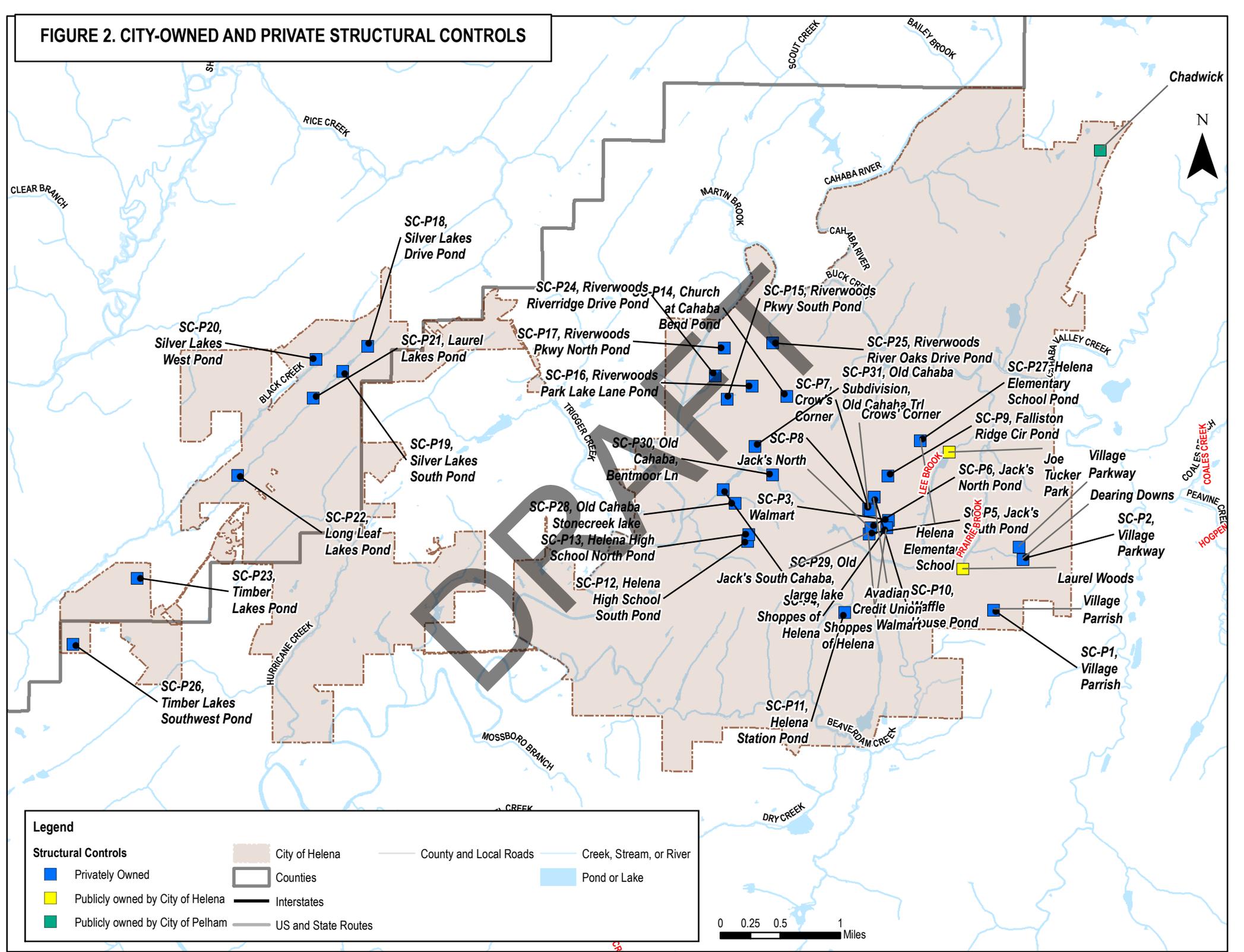


FIGURE 3. HELENA MS4 OUTFALL LOCATIONS

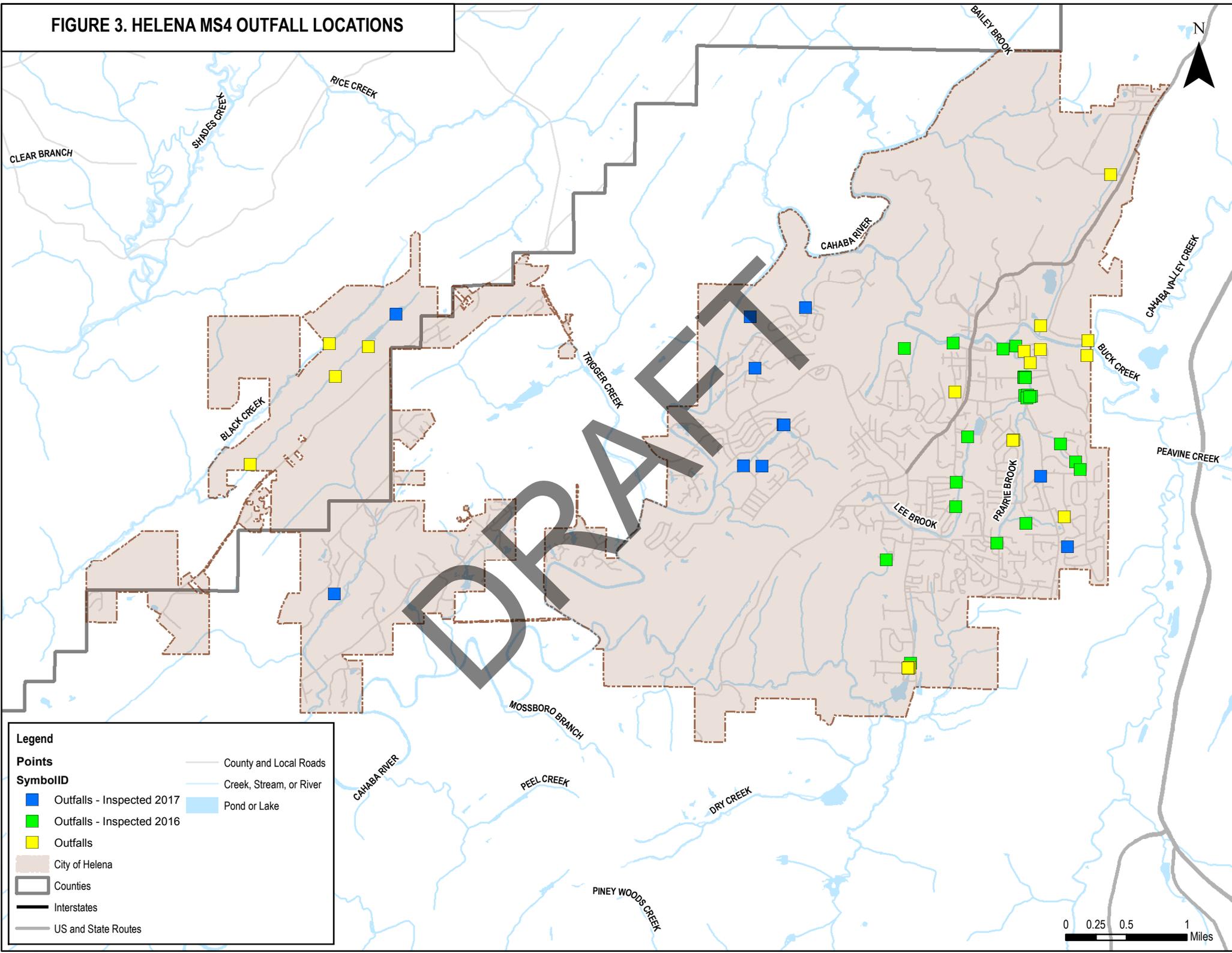
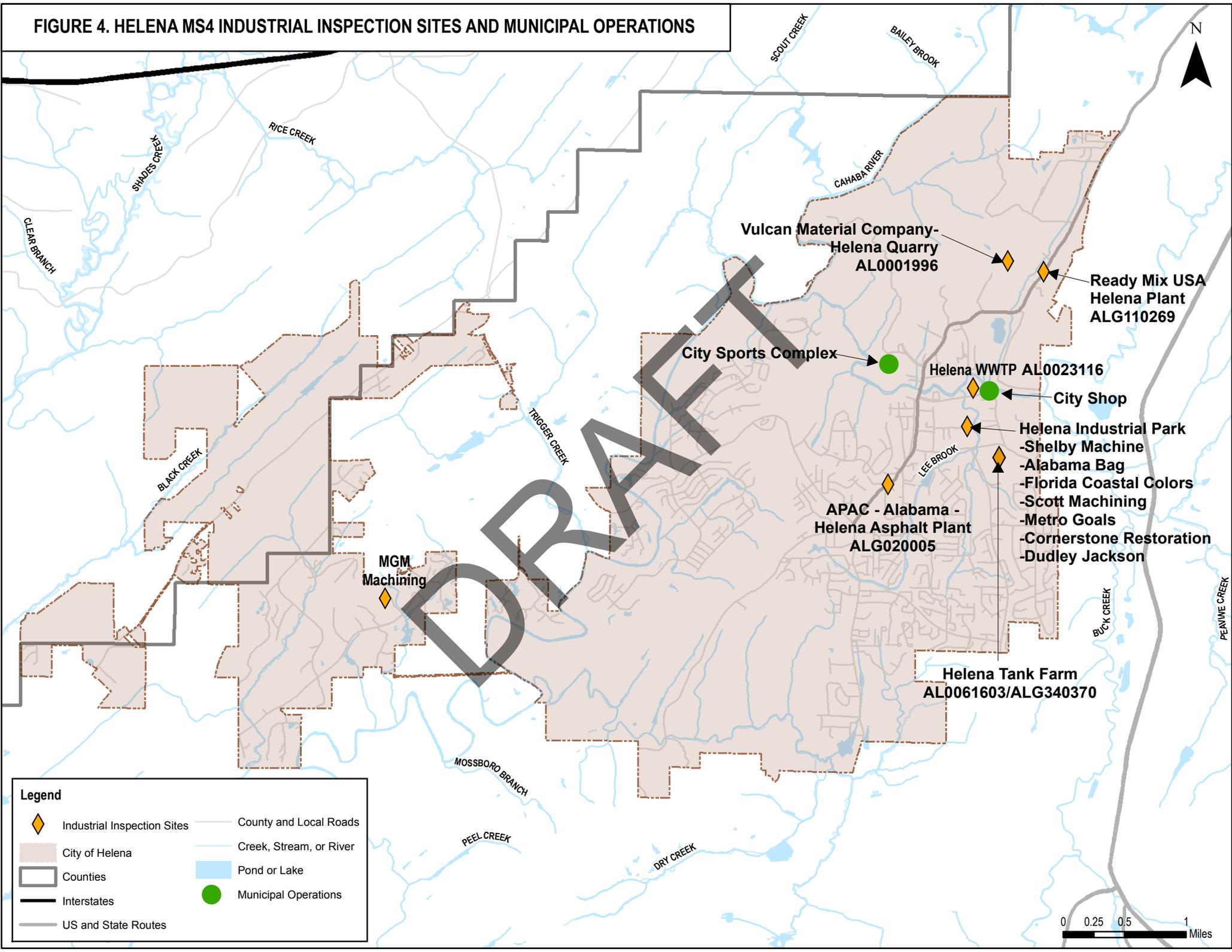


FIGURE 4. HELENA MS4 INDUSTRIAL INSPECTION SITES AND MUNICIPAL OPERATIONS



Legend

-  Industrial Inspection Sites
-  Municipal Operations
-  City of Helena
-  Creek, Stream, or River
-  Counties
-  Pond or Lake
-  Interstates
-  US and State Routes
-  County and Local Roads

0 0.25 0.5 1 Miles

FIGURE 5. HELENA MS4 WET WEATHER MONITORING LOCATIONS

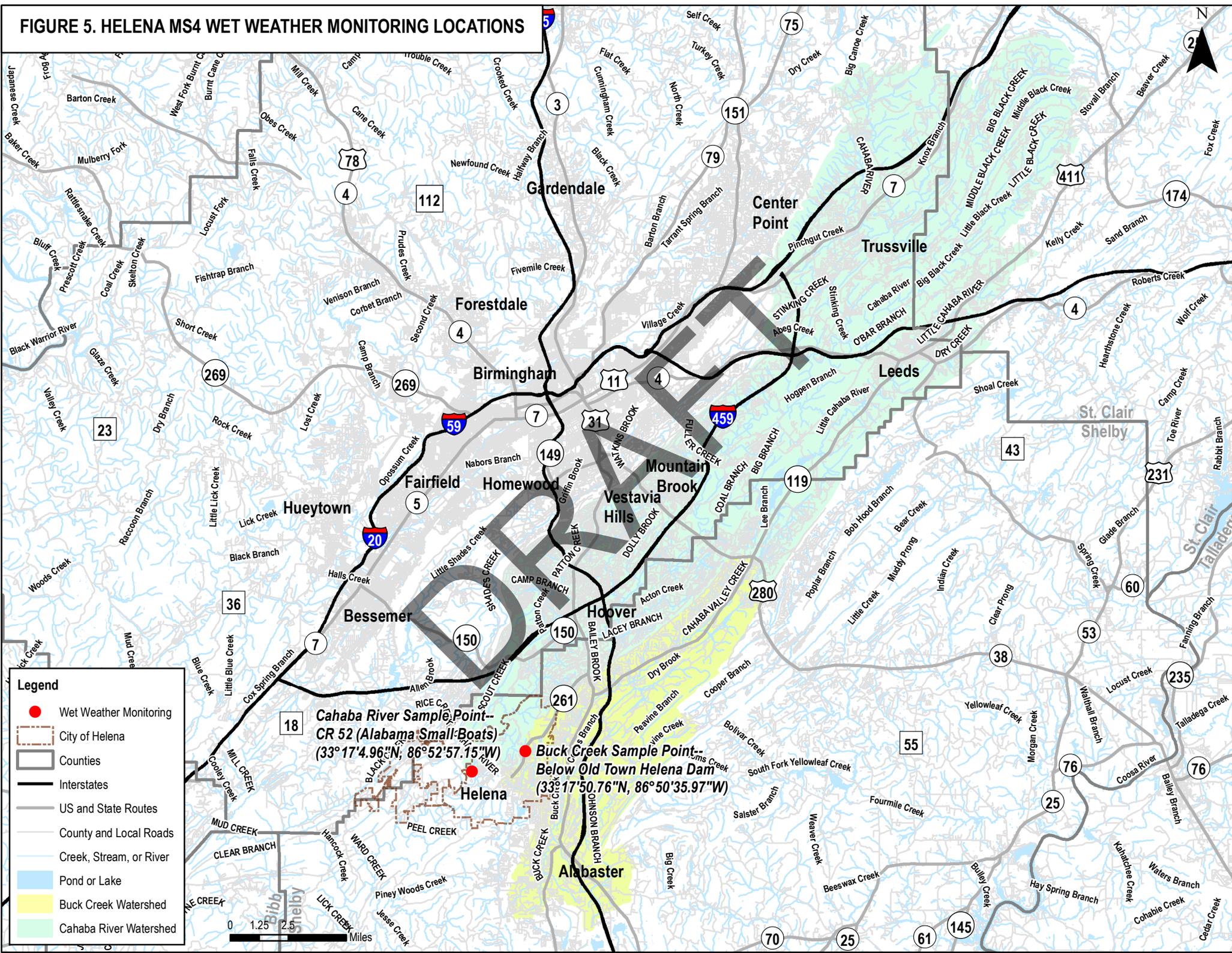
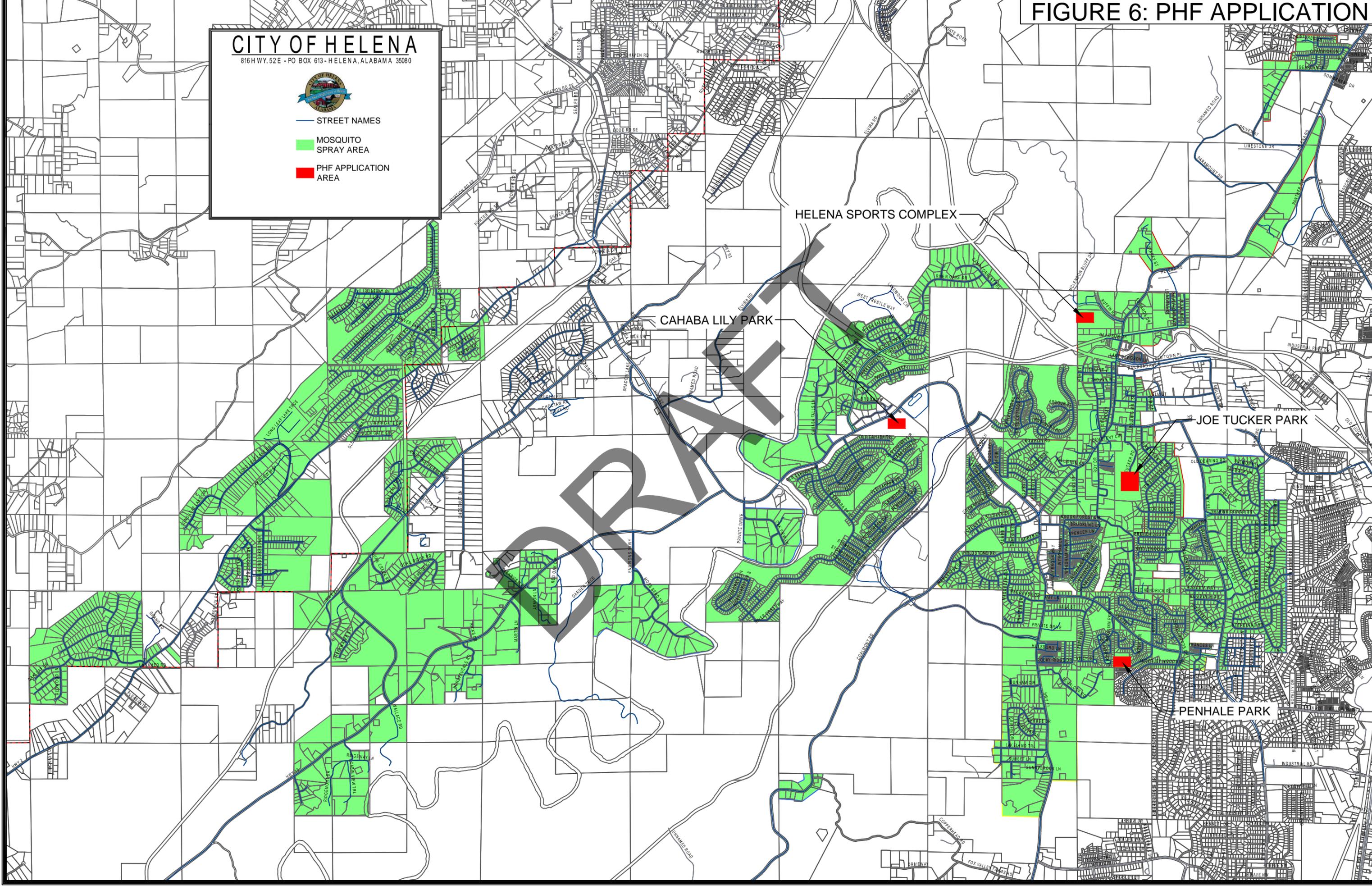


FIGURE 6: PHF APPLICATION

CITY OF HELENA
816H WY. 52E - PO BOX 613 - HELENA, ALABAMA 35080



- STREET NAMES
- MOSQUITO SPRAY AREA
- PHF APPLICATION AREA



SWMPP Appendix B – MS4 Permit

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Alabama Department of Environmental Management
adem.alabama.gov

1400 Coliseum Blvd. 36110-2400 ■ Post Office Box 301463
Montgomery, Alabama 36130-1463
(334) 271-7700 ■ FAX (334) 271-7950

DEC 04 2015

Certified Mail # 91 7108 2133 3936 7148 1142

Honorable Mark R. Hall
Mayor, City of Helena
816 Hwy 52 E
Helena, Alabama 35080

RE: Municipal Separate Storm Sewer System (MS4) Individual Phase I Permit
NPDES Number ALS000012
City of Helena MS4
Shelby County (117)

Dear Mayor Hall:

The Department has made a final determination to issue NPDES Permit No. ALS000012 to the City of Helena for discharges from its MS4. The NPDES Permit Number ALS000012 will be effective January 1, 2016 and expire on December 31, 2020.

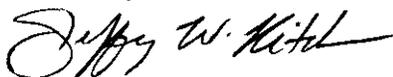
The Department notified the public of its tentative determination to issue NPDES Permit No. ALS000012 on September 9, 2015. Interested persons were provided the opportunity to submit comments on the Department's tentative decision through October 9, 2015. In accordance with ADEM Admin Code r. 335-6-6-.21(7), a response to all comments received during the public comment period are provided with the enclosed permit.

The City of Helena 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.state.al.us or by phone at 334-270-5616.

Sincerely,



Jeffery W. Kitchens, Chief
Stormwater Management Branch
Water Division

JWK/mss

File: FPER

Enclosures: Permit and Response to Comments

cc: Ms. Kacy Sable /Environmental Protection Agency



NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

PERMITTEE: CITY OF HELENA

AREA OF COVERAGE: CORPORATE BOUNDARIES OF THE CITY OF HELENA WITHIN
THE CAHABA RIVER DRAINAGE BASIN

PERMIT NUMBER: ALS000012

RECEIVING WATERS: WATERBODIES WITHIN THE CORPORATE BOUNDARIES OF
CITY OF HELENA WITHIN THE CAHABA RIVER DRAINAGE
BASIN

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: DECEMBER 4, 2015

EFFECTIVE DATE: JANUARY 1, 2016

EXPIRATION DATE: DECEMBER 31, 2020

GLENDIA 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 Helena within the Cahaba River drainage basin 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. The following non-stormwater discharges have been determined not to be significant sources of pollution:
 - 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 Management Program (SWMP)

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 jurisdictional boundaries;
 - b. The BMPs that will be implemented for each program element;
 - 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 initial 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. Inspection of 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 and 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;
 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 following information:
1. Plans to seek and consider public input in the development and implementation of the SWMPP;
 2. The 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, to include at a minimum:
 - 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. Plans to inform individuals and households about the steps they can take to reduce storm water pollution; and
 5. Plans to 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 the following, at a minimum:

- i. General Public
 - a. General impacts litter has on water bodies and ways to reduce the litter;
 - b. General impacts of storm water 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. 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, and Property Managers
 - a. BMPs for use and storage of pesticides and fertilizers;
 - b. Storm water pond maintenance.
 - c. General impacts of storm water into surface water from impervious surface.
 - iv. Engineers, Contractors and Developers
 - a. Impacts of increased storm water flows into receiving water bodies; and
 - b. 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. Plans to evaluate the effectiveness of the public education 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, then 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 plan 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,
 - c. Structural BMPs owned/maintained by the Permittee.
- 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 as expeditiously as practicable 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 develop/revise, implement and enforce an ongoing program to reduce, to the maximum extent practicable, the pollutants in any storm water runoff to the MS4 from qualifying construction sites. The program shall include the following, at a minimum:
- 1) Procedures to require all applicable construction sites to obtain coverage under ADEM NPDES General Permit ALR10000 or other applicable NPDES permits;
 - 2) To the extent allowed under State law, an ordinance or other regulatory mechanism to require effective erosion and sediment controls on qualifying construction sites, as well as sanctions to ensure compliance;
 - 3) Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality;
 - 4) Procedures for site plan review to ensure the selection of effective erosion and sediment controls are consistent with the Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas published by the Alabama Soil and Water Conservation Committee (hereinafter the "Alabama Handbook") and are appropriate for site conditions. Site plan review may be prioritized based on criteria outlined in the Permittee's SWMPP and may include, but is not limited to, size and location within priority watersheds. The plan review process will also consider potential water quality impacts;
 - 5) A mechanism for the public to report complaints regarding pollution discharges from construction sites;
 - 6) Inspection of sites to verify use and proper maintenance of appropriate BMPs. Inspections of construction sites shall be performed in accordance with the frequency specified in the table below:

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

*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. 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;
 - 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; and
 - d. Enforcement Tracking for formal actions and ADEM referrals
 - 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 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 violation;
 - 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 all critical storm water BMP components.
 - 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 Storm Water Management in 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 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.

- a. The Permittee shall develop 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 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 'as built' certification within 120 days of completion of project;
 - 7) Perform and/or require the performance of annual post-construction inspections to ensure that design standards are being met. 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;

6. Spill Prevention and Response

- a. The Permittee shall develop 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 develop, 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, clean up 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 six months of the effective date of this permit a revised SWMPP. The Permittee shall implement plans to seek and consider public input in the development 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 Wet-Weather 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
Buck Creek	Semi-Annually
Cahaba River	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. Grab samples shall be collected at least semi-annually at each instream monitoring station and analyzed for the following parameters:
 - a. E.Coli; (Cahaba River)
 - b. Fecal Coliform; (Buck Creek)
 - c. Total Nitrogen (TN) (mg/l); (Cahaba River, Buck Creek)
 - d. Total Phosphorus (mg/l); (Cahaba River, Buck Creek)
 - e. Total Suspended Solids (TSS) (mg/l); (Cahaba River, Buck Creek)
2. Grab samples shall be collected at least semi-annually the first permit year and annually for two-five permit years at each instream monitoring station and analyzed for the following parameters:
 - a. Temperature;
 - b. pH/ORP;
 - c. Turbidity (NTU);
 - d. Conductivity;
 - e. Dissolved Oxygen (mg/l);
 - f. E. Coli (Buck Creek);

- g. Fecal Coliform (Cahaba River)
 - h. Ammonia Nitrogen (NH₃-N) (mg/l);
 - i. Biochemical Oxygen Demand (BOD) (mg/l);
 - j. Chemical Oxygen Demand (COD) (mg/l);
 - k. Hardness as CaCO₃ (mg/l);
 - l. Nitrate plus Nitrite Nitrogen (NO₃+NO₂-N) (mg/l);
 - m. Oil and Grease (mg/l);
 - n. Total Dissolved Solids (TDS) (mg/l);
 - o. 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, and annually thereafter.
- 2. On or after December 21, 2020, all annual reports shall be submitted to the Department electronically in a prescribed manner acceptable to the Department.
- 3. The Permittee shall sign and certify the annual report in accordance with Part V.K.
- 4. The annual report shall include the following information, at a minimum, and in addition to those requirements referenced in Part II.B and Part III:
 - a. A list of contacts and responsible parties (e.g.: agency, name, phone number, address, & email address) who had input to and are responsible for the preparation of the annual report.
 - b. An overall evaluation of the storm water management program developments and progress for the following:
 - 1) Major findings such as water quality improvements or degradation;
 - 2) Major accomplishments;
 - 3) Overall program strengths/weaknesses;

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

- h. Status of expenditures and budget for the past fiscal year and the next fiscal year for the Permittee's program. The analysis shall indicate budgets and funding sources.

PART V Standard and General Permit Conditions

A. Certification and Signature of Reports

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

B. Submittals

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

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

Certified and Registered Mail shall be addressed to:

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

C. Retention of Records

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

D. Duty to Comply

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

E. Civil and Criminal Liability

1. Tampering

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

2. False Statements

Any person knowingly makes any false statement, representation, or certification in any record or other documentation submitted or required to be maintained under this permit,

including monitoring reports or reports of compliance or non-compliance, shall, upon conviction, be punished as provided by AWPCA

3. **Relief from Liability**

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

F. Duty to Reapply

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

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

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

H. Duty to Mitigate

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

I. Duty to Provide Information

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

J. Other Information

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

K. Signatory Requirements

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

"I certify under the penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for

gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

L. *Oil and Hazardous Substance Liability*

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

M. *Property and Other Rights*

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

N. *Severability*

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

O. *Compliance with Statutes and Rules*

This permit is issued under ADEM Administrative Code, Chapter 335-6-6. All provisions of this chapter that are applicable to this permit are hereby made a part of this permit.

This permit does not authorize the non-compliance with or violation of any laws of the State of Alabama or the United States of America or any regulations or rules implementing such laws.

P. *Proper Operations and Maintenance*

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

Q. *Monitoring Records*

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

R. *Monitoring Methods*

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

S. *Right of Entry and Inspection*

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

1. Enter upon any of the permittee's premises where a regulated facility or activity or point source is located or in which any records must be maintained under conditions of this permit;
2. Have access to and copy, at reasonable times, any records required to be maintained by the terms and conditions of this permit;
3. Inspect, at reasonable times, any point source, any monitoring equipment or practices being maintained to comply with this permit, or any treatment or control or systems being maintained to comply with this permit; and
4. Sample or monitor, at reasonable times, for the purposes of determining permit compliance or as otherwise authorized by AWPCA, any substances or parameters at any location.

T. *Additional Monitoring by the Permittee*

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

U. *Permit Modification and Revocation*

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

- e. To the extent allowed by ADEM Administrative Code, Rule 335-6-6-.17, permit may be modified to change compliance schedules;
 - f. To incorporate an applicable Section 307(a) of FWPCA toxic effluent standard or prohibition;
 - g. When required by the re-opener conditions in this permit;
 - h. Upon failure of the State to notify, as required by Section 402(b)(3) of FWPCA, another State whose water may be affected by a discharge permitted by this permit;
 - i. When required to correct technical mistakes, such as errors in calculation, or mistaken interpretations of law made in determining permit conditions;
 - j. When requested by the Permittee and the Director determines that the modification has cause and will not result in a violation of federal or State law, rules, or regulations;
 - k. To add a new Permittee who is the owner or operator of a portion of the Municipal Separate Storm Sewer System; or
 - l. To change portions of the Storm Water Quality Management Program that is considered permit conditions.
3. This permit may be terminated during its term for cause, including but not limited to, the following:
- a. Violation of any term or condition of this permit;
 - b. The permittee's misrepresentation or failure to disclose fully all relevant facts in the permit application or during the permit issuance or the permittee's misrepresentation of any relevant facts at any time;
 - c. Materially false or inaccurate statements or information in the permit application or the permit;
 - d. The permittee's discharge threatens human life or welfare or the maintenance or water quality standards; or
 - e. Any other cause allowed by ADEM Administrative Code, Rule 335-6-6.
4. This permit may be suspended during its term for cause, including but not limited to, the reasons for termination listed above.
5. The filing of a request by the Permittee for modification, suspension or revocation of this permit, in whole or in part, does not stay any permit term condition.

V. Termination of Coverage for a Single Permittee

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

W. Modification of Storm Water Management Program

Only those portions of the Storm Water Management Program specifically required as permit conditions shall be subject to modification requirements of 40 CFR 124.5. Replacement of an

ineffective or infeasible BMP implementing a required component of the Storm Water Management Program with an alternate BMP expected to achieve the goals of the ineffective or infeasible BMP shall be considered a minor modification to the SWMPP and not modification to the Permit.

X. *Changes in Monitoring Outfalls*

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

Y. *Definitions*

1. “Arithmetic Mean” means the summation of the individual values of any set values divided by the number of individual values.
2. “AWPCA” means Code of Alabama 1975, Title 22, the Alabama Water Pollution Control Act, as amended.
3. “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.
4. “Bypass” means the intentional diversion of waste streams from any portion of a treatment facility.
5. “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.
6. “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.
7. “Department” means the Alabama Department of Environmental Management or an authorized representative.
8. “Discharge”, when used without a qualifier, refers to “discharge of a pollutant” as defined as ADEM Administrative Code 335-6-6-.02(m).
9. “Flood Management Project” means a project that will alter, modify or change the base flood elevation of a 1% annual chance flood event.
10. “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.
11. “Green Infrastructure” refers to systems and practices that use or mimic natural processes to infiltrate, evapotranspire (the return of water to the atmosphere either through evaporation or by plants), or reuse stormwater or runoff on the site where it is generated.

12. "Hydrology" refers to the physical characteristics of storm water discharge, including the magnitude, duration, frequency, and timing of discharge.
13. "Illicit connection" means any man-made conveyance connecting a non-storm water discharge directly to a municipal separate storm sewer system.
14. "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.
15. "Industrial Land Use" means land utilized in connection with manufacturing, processing, or raw materials storage at facilities identified under Alabama State Law.
16. "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.
17. "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.
18. "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.
19. "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.
20. "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.
21. "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.
22. "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.

23. "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.
24. "Municipal Separate Storm System" is defined at 40 CFR Part 122.26(b)(8) and means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States; (ii) Designed or used for collecting or conveying storm water; (iii) Which is not a combined sewer; and (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined in ADEM Administrative Code 335-6-6-.02(nn).
25. "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.
26. "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.
27. "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.
28. "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.
29. "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.
30. "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.
31. "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.
32. "Structural Flood Control" means structural measures that control the 1% annual chance floodwaters by construction of barriers, storage areas or by modifying / redirecting channels.

Southern Environmental Law Center (SELC) comments

Comment (1): The Cahaba River will not be adequately monitored in Shelby County, where Helena is located. In fact, even after the monitoring component requirement was added in the TMDL section of the Shelby County MS4 permit, the specific requirements in the monitoring section of the permit remained the same. The Cahaba River, which has been impaired for over seventeen years, has TMDLs for pathogens (*E. coli*), siltation, and nutrients (phosphorus), yet none of the Shelby County MS4 permits require adequate monitoring of these components in the Cahaba. Shelby County, Pelham, and Alabaster MS4s are not required to monitor the Cahaba River at all. And Helena is only required to sample twice a year. In response to this comment made in the Shelby County MS4 permit, ADEM wrote:

Shelby County has a history of working closely with the surrounding MS4 entities regarding monitoring, and while Shelby County and these other MS4s are no longer “co-permittees” under one permit, nothing in the draft permit prohibits or restricts the MS4 entities from working together to address stormwater issues, to include monitoring.

While collaboration among permittees is important, Helena's semi-annual monitoring of the TMDL parameters is not sufficient to determine the effectiveness of the BMPs in Helena, much less to determine the effectiveness of the BMPs in the rest of the county.

Response (1): Part II.E. of the draft permit contains requirements regarding discharges into a water body with an EPA-approved or established TMDL, including BMPs targeted to meet the assumptions and requirements of the TMDL, schedules for installation and/or implementation of such BMPs, and monitoring to assess the effectiveness of the BMPs in achieving the TMDL requirements. The Department reviews all SWMPPs, to include monitoring plans and provides comments as deemed appropriate. The Department has historically reviewed the monitoring plans both individually and on a watershed basis and plans to continue with this approach. Also, please note that the public has an opportunity to engage in the development and implementation of the Permittee's SWMPP as detailed in Part II.D.1 of the draft permit. No changes were made to the draft permit in response to this comment.

Comment (2): Montgomery and Shelby County's MS4 permits both require water quality probes that take hourly samples of certain parameters (including turbidity); Helena's should do the same. The National Research Council of the National Academies has written, “Continuous, low weighted sampling methods should replace the traditional collection of stormwater data using grab samples. Data obtained from too few grab samples are highly variable...and subject to greater uncertainty because of experimenter error and poor data-collection practices. In order to use stormwater data for decision making in a scientifically defensible fashion, grab sampling should be abandoned as a credible stormwater sampling approach for virtually all applications.” At the very least, ADEM must describe why hourly sampling for the TMDL parameters is not practicable for Helena as a way of ensuring that Helena is reducing pollutants to the MEP.

ADEM responds that USGS has put real-time stations on the main stem of the Cahaba that will collect this data. The only Shelby County USGS gage that monitors the Cahaba River is in

Helena. This station, however, does not monitor for the parameters for which the TMDLs were created. In fact, none of the USGS gages for the River measure any of the parameters for which the TMDLs were created, and therefore, will not contribute significantly to understanding sediment, nutrient, or E. coli TMDL compliance.

Additionally, ADEM states that the Department itself has real-time stations on both the mainstem of the Cahaba River and its tributaries. The public does not have the ability to comment on the frequency and adequacy of the ADEM monitoring stations, nor is this monitoring required by the permit. If ADEM expects Helena to use this information to meet its permit requirements, ADEM's monitoring information should be described and incorporated into Helena's permit.

The tributaries that feed the Cahaba River also have TMDLs; however, neither this permit nor any of the Shelby County permits require adequate monitoring of these tributaries. Buck Creek, which runs through the heart of Helena, has a TMDL for fecal coliform, yet Helena, Alabaster, and Pelham's permits only require monitoring of this parameter twice a year. And the USGS gage for Buck Creek does not monitor fecal coliform at all. ADEM must require a comprehensive monitoring plan for the Cahaba and its tributaries in order to track TMDL progress, and to determine the monitoring contributions of each MS4.

Response (2): Regarding your comment on the use of probes for hourly sampling within the City of Montgomery and Shelby County MS4 Phase I NPDES Permits, the use of probes was an approach proposed by those Permittees, not unilaterally required by the Department.

The City of Helena's proposed monitoring stations are located on the Cahaba River and Buck Creek, a tributary to the Cahaba River. As SELC is likely aware, several other MS4 entities have monitoring requirements that include monitoring the Cahaba River and its tributaries. Other agencies, such as the United States Geological Survey, also monitor for, but not limited to, gage height, discharge, temperature, specific conductance, dissolved oxygen, and turbidity at real-time stations on the main stem of the Cahaba River and its tributaries. A point of correction, the Department does not have real-time stations on both the mainstem of the Cahaba River and its tributaries, but has monitoring stations to include, but not limited to, periphyton, macroinvertebrate, and water quality sampling along both the Cahaba River and its tributaries which is available to the public upon request.

Related to your comment regarding a comprehensive monitoring plan for the Cahaba River, please see Response (1). No changes were made to the draft permit based on this comment.

Comment (3): Helena's median household income (\$83,956) is well above the state average (\$43,253). It seems it should have more resources than other cities, yet its post construction control standard is less than what other MS4 permits (such as Mobile, the General Phase II permit, and ALDOT) have required. (See copy of our Shelby County comments attached as Appendix 1.) In any case, EPA has written that in establishing what constitutes the maximum extent practicable, the permitting authority must look at a variety of factors, including available stormwater control technology, the scientific and engineering literature regarding the control of stormwater, current best practices employed by other MS4s, and site specific conditions that are

found at the facility. ADEM must explain why it is not practicable for Helena to use the same control technology that ALDOT uses for the area. In the Shelby County draft permit response, ADEM responded to this comment that "what constitutes MEP is not a 'one size fits all,' but is determined on a case-by-case basis, which means the provisions may be different for each Permittee based on numerous factors." But the Department stops short and does not describe those "factors". Please explain why Shelby County, Alabaster, Pelham, and now Helena, have been given a less rigorous post construction control standard than is required for ALDOT for the same area.

In addition, the Department seems to believe that it cannot control for volume and flow, but can only control for pollutants. Research indicates that post-construction controls designed to maintain pre-development hydrology are an effective way of reducing pollutants in stormwater discharges. Because of this, the EPA has recognized the need to control for flow in order to control pollutants to the MEP. The EPA states:

As a general matter, EPA, scientists and the regulated community all recognize that stormwater runoff collects and transports pollutants into MS4s and subsequently into their receiving waters, and that by decreasing the volume of runoff, pollutants discharged from MS4s are reduced. (cite stormwater discharges results from the creation of new impervious surfaces, *i.e.*, development. *See e.g.*, 64 Fed. Reg. 68722, 68725 (Dec. 6, 1999). This increase in stormwater velocity and volume results in increased pollutant loadings, which can cause or contribute to water quality impairments. Moreover, increased velocity and volume can alter the physical parameters of waterbodies by widening and incising channels, which fundamentally transforms the natural hydrologic regime with long-term negative impacts on aquatic habitats and biotic interactions. (cite omitted). As explained in the Phase II rule preamble with respect to the post-construction minimum measure, 'EPA intends to prevent water quality impacts resulting from increased discharges of pollutants, which may result from increased volume of runoff. In many cases, consideration of the increased flow rate, velocity and energy of storm water discharges following development unavoidably must be taken into consideration in order to reduce the discharge of pollutants, to meet water quality permit conditions and to prevent degradation of receiving streams. 64 Fed. Reg. at 68761.

ADEM must explain why controlling for volume, and retaining stormwater up to the 95th-percentile storm event as recommended by Section 438 of the Energy Independence and Security Act is not practicable for Helena, especially when that is necessary to meet the 48% reduction in sediment as required by the TMDL.

Response (3): Regarding the post-construction standard in the draft permit, the Department believes that the requirements related to post-construction stormwater management in new developments and redevelopments are adequate and appropriate for the City of Helena.

The intent of the draft permit is to require the Permittee to implement, maintain and enforce a comprehensive stormwater management program which involves using management practices, control techniques and system, design and engineering methods, and such other provisions which are appropriate to reduce the **discharge of pollutants** from its MS4 consistent with Section 402(p)(3)(B) of the Clean Water Act and 40 CFR Part 122.26. 40 CFR 122.26(d)(2)(iv)(A)(2) is clear that the Permittee is responsible for controlling the **discharge of pollutants** in stormwater runoff from new developments and significant redevelopments. Please note that flow is not a

pollutant under the Clean Water Act. It is the Department's belief that the utilization of the design storm specified in the draft permit meets the statutory and regulatory requirements.

No changes were made to the draft permit in response to the comment.

Comment (4): Finally, we remain concerned that this permit, with its weak post construction standard, will impact the 32 federally listed species in the Cahaba River. (See our previous comments, Appendix 1). MS4s and ADEM have an obligation under the Endangered Species Act to ensure that their activities do not result in any prohibited "takes" of listed species; however, the draft permit omits any mention of endangered species. While we appreciate that ADEM sends the draft permit to U.S. Fish and Wildlife, this does not relieve ADEM nor the MS4 of their duty to not harm these species. Biological monitoring should be required in the permit to verify that endangered species are not impacted. And ADEM should not renew the permit unless it can verify that these species are protected. This permit is almost identical to the Shelby County permit; and therefore, we incorporate our attached Shelby County comments.

Response (4): The United States Fish and Wildlife Service (USFWS) has jurisdiction in regard to endangered species. As required by ADEM Administrative Code r. 335-6-6-.21(3) and 40 CFR 124, the Department maintains a mailing list which includes federal, state and local governments. The individuals and entities on this list, which includes the USFWS, are mailed legal notices regarding proposed permits, including this draft permit. The Department received no comments on the draft permit from the USFWS. Questions or concerns related to endangered species should be directed to the USFWS. In addition, the draft permit does not allow discharges that cause or contribute to an exceedance of a water quality standard. The State's water quality standards are meant to be protective of aquatic species and habitats. No changes were made to the draft permit in response to this comment.

As appropriate, please see the Department's response to the Shelby County MS4 permit ALS000008 comments.



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DRAFT

SWMPP Appendix C – City Storm Water Ordinances

DRAFT

ORDINANCE NO. 841-16

AN ORDINANCE TO ESTABLISH STORM WATER
MANAGEMENT AND WATER QUALITY CONTROLS,
PROGRAMS, REGULATIONS, PROHIBITIONS, AND
PENALTIES FOR THE CITY OF HELENA, ALABAMA

WHEREAS, uncontrolled storm water drainage and discharge may have a significant, adverse impact on the health, safety, and general welfare of the City of Helena and the quality of life of its citizens by carrying pollutants into the receiving community waters; and

WHEREAS, the City of Helena is required by federal law, particularly 33 U.S.C. § 1342(P) and 40 CFR § 122.26, to obtain a National Pollutant Discharge Elimination System (NPDES) permit from the Alabama Department of Environmental Management for storm water discharges from the Municipal Separate Storm Sewer System (MS4). The NPDES permit requires the City to impose controls to reduce the discharge of pollutants in storm water to the maximum extent practicable using management practices, control techniques and system design and engineering methods, and such other provisions which are determined to be appropriate for the control of such pollutants.

NOW, THEREFORE,
 BE IT ORDAINED BY THE CITY COUNCIL
 OF THE CITY OF HELENA, ALABAMA:

That the following ordinance is hereby adopted and enacted and shall be implemented to address storm water drainage and discharge in those areas specifically designated by NPDES Permit ALS000012 from the Alabama Department of Environmental Management and all other areas of the City of Helena.

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DIVISION 1. GENERALLY

Sec. 01-001. Authority.

The Alabama Department of Environmental Management pursuant to the authority delegated to it under the Clean Water Act, 33 U.S.C. Section 1251, *et seq.*, has required the City of Helena to obtain a National Pollutant Discharge Elimination System (NPDES) permit for storm water discharges from the Municipal Separate Storm Sewer System (MS4), effective January 1, 2016. Therefore, the City is subject to the federal storm water laws, as presented in 33 U.S.C. ¶ 1342 (P) and 40 CFR ¶ 122.26, and as such, is required to adopt local storm water management ordinances. Act No. 95-775, Legislature of Alabama - § 11-89C-1 - 14, Code of Alabama 1975, and other provisions thereof, grants the authority to adopt such ordinances to the governing bodies of all Class 1 municipalities within the state and to the county governing bodies in which the Class 1 municipalities are located and to the governing bodies of all municipalities located within those counties, and where any such municipality is also located partially within an adjoining county, then to the governing body of such adjoining county and to which governing bodies are specifically designated by ADEM pursuant to the authority delegated to it under the Clean Water Act, 33 U.S.C. Section 1251, *et seq.*

Sec. 01-002. Purpose.

- (a) It is the purpose of this ordinance to protect, maintain, and enhance the environment of the City of Helena and the short-term and long-term public health, safety, and general welfare of the citizens of the City of Helena by controlling discharges of pollutants to the MS4 and to maintain and improve 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 of Helena. This ordinance prohibits the discharge of non-storm water into the MS4 and the community waters and provides enforcement procedures and penalties to ensure compliance.
- (b) It is further the purpose of this ordinance to enable the City of Helena to comply with the National Pollutant Discharge Elimination System (NPDES) permit and applicable regulations (40 CFR ¶ 122.26) for storm water discharges.

Sec. 01-003. Definitions.

For the purpose of this ordinance- the following terms, phrases and words and their derivatives, shall have the meaning given herein:

"Accidental Discharge" shall mean a discharge prohibited by this article into the "Community Waters" or to the "Waters of the State" which occurs by chance and without

planning or consideration prior to occurrence.

"Alabama Department of Environmental Management" or "ADEM" shall mean the State of Alabama regulatory agency which administers and enforces those laws governing storm water in the State of Alabama.

"Applicant" shall mean any person, firm or corporation required by this ordinance to obtain a City of Helena Storm Water Discharge Permit.

"Best Management Practices" or "BMPs" shall mean schedules of activities, prohibitions or practices, maintenance procedures and other management practices to prevent or reduce the discharge of pollutants to the municipal separate storm sewer system. BMPs also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

"Clean Water Act" shall mean the Federal Water Pollution Control Act, as amended, codified at 33 U.S.C. ¶1251, *et seq.*, and regulations promulgated thereunder.

"Community Waters" shall mean any or all rivers, streams, creeks, branches, lakes, reservoirs, ponds, drainage systems, springs, wetlands, wells and other bodies of surface or subsurface water, natural or artificial lying within or forming a part of the boundaries of the City of Helena or the waters into which the City of Helena Municipal Separate Storm Sewer System outfalls flow.

"City" shall mean the City of Helena, Alabama.

"Discharge" shall mean the addition of any substance to the municipal separate storm sewer system.

"Environmental Protection Agency" or "EPA" shall mean the federal regulatory agency which administers those laws governing storm water in the United States of America.

"Erosion" shall mean wearing away of the lands by running water, winds, or waves.

"Illicit Discharge" shall mean a discharge to the municipal separate storm sewer system or to the community waters that is not composed entirely of storm water, except discharges pursuant to an NPDES permit and other allowable discharges dictated by this ordinance.

"Industrial Facility" shall mean a business or businesses engaged in industrial production, manufacturing or service which may or may not have raw materials stored on site, produce excessive dust or other industrial by-products, or, in the opinion of the City of Helena Environmental Office, or other agency or department designated and authorized by the City of Helena, may pose a threat of contamination to the MS4 or to the community waters.

These facilities are typically located in areas which are zoned as M-1 or M-2, in those portions of the City regulated by zoning laws.

"Manager" shall mean the person, or his or her duly authorized representative, designated by the City Council to supervise the operations of the City's storm water management program and who is charged with certain duties and responsibilities by this ordinance.

"Municipal Separate Storm Sewer System" or "MS4" shall mean a conveyance or system of conveyances (including roads with drainage systems, streets, catch basins, curbs, gutters, easements, swales, ditches, man-made channels or storm drains) carrying storm water runoff which is directly or indirectly discharged into the Cahaba River drainage basin upstream of Big Piney Woods Creek, and which are owned, operated or maintained by the City. Privately-owned storm water conveyances may be included in this definition at the City's discretion in order to prevent contamination of the public portion of the MS4.

"National Pollutant Discharge Elimination System" or "NPDES" permit shall mean a permit issued pursuant to Section 402 of the Clean Water Act (33 U.S.C. ¶ 1342).

"Notice of Intent" or "NOI" shall mean a written notice by a discharger to the Director of ADEM, that the person wishes his or her discharge to be authorized under a general storm water discharge permit authorized by state law or regulation.

"Person" shall mean any individual, partnership, copartnership, firm, syndicate, company, corporation, association, joint stock company, trust, estate, governmental entity or any other legal entity, or their legal representatives, agents or assigns. The masculine gender shall include the feminine and the singular shall include the plural where indicated in text.

"Pollutants" shall mean any substance deemed by the Manager to be a threat to human health or the environment, including, but not limited to: dredged soil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical waste, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended), heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, domestic and agricultural waste.

"Pollution" shall mean a condition created by the presence of harmful or objectionable material in water.

"Sanitary Sewer" shall mean a sewer that carries liquid and water-carried wastes from residences, commercial buildings, industrial plants and institutions, together with minor quantities of ground, storm and surface waters that are not admitted intentionally.

"Sediment" shall mean the organic or inorganic solid material settled from suspension in a liquid.

"Significant Spills" shall mean spills which include, but are not limited to, releases of oil or hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (see 40 CFR 110.10 and CFR 117.21) or Section 102 of CERCLA (see 40 CFR 302.4).

"Storm Water" shall mean runoff associated with a rain event, snow melt runoff, and surface runoff and drainage.

"Storm Water Management" shall mean the collection, conveyance, storage, treatment and disposal of storm water runoff in a manner to meet the objectives of this ordinance and its terms, including, but not limited to, measures that control the increased volume and rate of storm water runoff and water quality impacts caused by manmade changes to the land.

"Storm Water Management Program" shall mean the program developed by the City of Helena pursuant to NPDES Permit ALS000012 to control the flow of pollutants into the MS4.

"Toxic Pollutants" shall mean any pollutant or combination of pollutants listed as toxic in 40 CFR Part 401 promulgated by the Administrator of the Environmental Protection Agency under the provisions of 33 U.S.C. § 1317.

"Variance" shall mean the modification of the minimum storm water management requirements contained in this ordinance and the Storm Water Management Program for specific circumstances where strict adherence of the requirements would result in unnecessary hardship as limited by the terms of the permit, and not fulfill the intent of this ordinance.

"Wastewater" shall mean the spent water of a community. It may be a combination of liquid and water-carried wastes from residences, commercial buildings, industrial plants, and institutions, together with any groundwater, surface water and storm water that may be present. Also, called sanitary sewage.

"Water Quality" shall mean those characteristics of storm water runoff that relate to the physical, chemical, biological, or radiological integrity of water.

"Water Quantity" shall mean those characteristics of storm water runoff that relate to the rate and volume of the storm water runoff.

"Wetland" shall mean lands that are inundated or saturated with water to the extent that the soil will support vegetation typically adapted to saturated soil conditions. The lands may or may not be saturated at all times.

Sec.01-004. Severability.

If any section, sub-section, phrase, clause or provision of this ordinance be declared invalid by a court of competent jurisdiction, the same shall not affect the validity of the ordinance as a whole or any part or portion thereof other than the part declared to be involved.

Sec.01-005. Effective Date.

This ordinance shall take effect upon its adoption or otherwise as provided by law.

Secs.01-006 -- 01-008. Reserved.

DIVISION 2. APPLICATIONS AND PERMITS FOR INDUSTRIAL AND COMMERCIAL FACILITIES

Sec. 01-009. Existing facilities required to obtain permit.

- (a) All existing industrial facilities, service stations, convenience stores with gasoline pumps, vehicular repair shops and vehicular parts repair shops which discharge storm water directly or indirectly into the municipal separate storm sewer system and which do not have current NPDES permits issued by ADEM authorizing the discharge of storm water, are required to apply for and obtain a City of Helena Storm Water Discharge Permit.

on or before the dates set forth in the following schedule:

All other existing commercial facilities located in the City of Helena, and which do not have current NPDES storm water permits, are not required to apply for a City of Helena Storm Water Discharge Permit. However, these facilities shall comply with Divisions 5 and 6 of this ordinance.

- (b) Permit application forms may be acquired from the Manager. Upon receipt of the application, the Manager will evaluate the information provided and either deny a permit to the applicant or issue the applicant a City of Helena Storm Water Discharge Permit. An approved permit may require the facility or commercial establishment to implement additional structural and non-structural Best Management Practices to reduce or eliminate the

potential to discharge pollutants. If the application is denied, the Manager shall

notify the applicant of deficiencies and allow thirty (30) days for the application to be revised and resubmitted. If the noted deficiencies are not corrected within thirty (30) days and/or the permit is not resubmitted, any discharge of storm water after that date into the municipal separate storm sewer system shall be unlawful. Once issued, a permit shall be valid for five (5) years, unless sooner revoked for violations of permit conditions, changes in applicable law, or other good cause.

- (c) The application for a City of Helena Storm Water Discharge Permit for an existing facility or commercial establishment shall include, at a minimum, the following information:
 - (1) description and type of facility and the nature of work performed;
 - (2) 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;
 - (3) the name of contact person for permit compliance, including job title, facility address and telephone number;
 - (4) a description of ways the facility or commercial establishment plans to implement programs to reduce the discharge of pollutants through storm water flow; and
 - (5) any other information deemed necessary by the Manager to effectively evaluate the potential for contamination of the MS4 by storm water runoff.

Sec. 01-010. Existing facilities required to have an NPDES permit.

- (a) All existing industrial facilities, service stations, convenience stores with gasoline pumps, vehicular repair shops and vehicular parts repair shops which discharge storm water directly or indirectly into the municipal separate storm sewer system and which have current NPDES permits issued by ADEM authorizing the discharge of storm water are required to submit to the Manager a copy of the Notice of Intent (NOI) and ADEM's subsequent letter of verification of coverage under the NPDES General Permit. If the facility has an individual NPDES storm water discharge permit, a copy of the permit, in its entirety, shall be submitted to the Manager.
- (b) Upon expiration and renewal of the existing NPDES permit, the facility shall be

required to submit a copy of the new NOI and coverage verification, or individual

NPDES permit, to the Manager within thirty (30) days.

- (c) The NOI or NPDES permit shall be accompanied by the name of the contact person for permit compliance, including his or her job title and the telephone number.

Sec. 01-011. New facility permits.

- (a) All new industrial facilities, service stations, convenience stores with gasoline pumps, vehicular repair shops and vehicular parts repair shops which discharge storm water directly or indirectly into the municipal separate storm sewer system, and which do not require an NPDES permit issued by ADEM authorizing the discharge of storm water, are required to apply for a City of Helena Storm Water Discharge Permit prior to construction. This permit shall be required in addition to any permit required by ADEM for storm water discharges associated with construction activity and any other permit required by this ordinance for land clearing activities. All other new commercial facilities located in the City of Helena, and which do not require an NPDES storm water permit, are not required to apply for a City of Helena Storm Water Discharge Permit. However, these facilities shall comply with Divisions 5 and 6 of this ordinance.
- (b) Permit application forms may be acquired from the Manager. Completed application forms are to be returned to the Manager. Upon receipt of the application, the Manager will evaluate the information provided and either deny a permit to the applicant or issue the applicant a City of Helena Storm Water Discharge Permit. An approved permit may require the facility to implement additional structural and non-structural Best Management Practices to reduce or eliminate the potential to discharge pollutants. If the application is denied, the Manager shall notify the applicant of deficiencies and allow thirty (30) days for the application to be revised and resubmitted. If the noted deficiencies are not corrected within thirty (30) days and/or the permit is not resubmitted, any discharge of storm water after that date into the municipal separate storm sewer system shall be unlawful. Once issued, a permit shall be valid for five (5) years, unless sooner revoked for violations of permit conditions, changes in applicable law, or other good cause.
- (c) The application for a City of Helena Storm Water Discharge Permit for a new facility shall include, at a minimum, the same information as that required for an existing facility.

Sec. 01-012. New facilities required to have an NPDES permit.

- (a) All new industrial facilities, service stations, convenience stores with gasoline pumps, vehicular repair shops and vehicular parts repair shops which discharge storm water directly or indirectly into the municipal separate storm sewer system, and which

require an NPDES permit issued by ADEM authorizing the discharge of storm water are required to submit to the Manager a copy of the Notice of Intent (NOI) and ADEM's

subsequent letter of verification of coverage under the NPDES General Permit. If the facility requires an individual NPDES permit, a copy of the permit, in its entirety, shall be submitted to the Manager. In addition, any permit required by ADEM for storm water discharges associated with land clearing and construction activities shall be submitted to the Manager prior to construction.

- (b) Upon expiration and renewal of the NPDES permit, the facility will be required to submit a copy of the new NPDES permit to the Manager within thirty (30) days.
- (c) The NPDES permit shall be accompanied by the name of the contact person for permit compliance, including his or her job title, and the telephone number.

Sec. 01-013. Permit application fees.

- (a) Each application for the issuance of a City of Helena Storm Water Discharge Permit for an existing industrial or commercial facility shall be accompanied by a non-refundable fee of one hundred dollars (\$100.00) plus fifteen dollars per acre (\$15.00/acre).
- (b) Each application for the issuance of a City of Helena Storm Water Discharge Permit for a new industrial or commercial facility shall be accompanied by a non-refundable fee of one hundred dollars (\$100.00) plus fifteen dollars per acre (\$15.00/acre) and any such additional fees for land disturbance or construction activities as may be required per this ordinance.

Secs. 01-014 - - 01-018. Reserved.

DIVISION 3. APPLICATIONS AND PERMITS FOR LAND DISTURBANCE AND CONSTRUCTION ACTIVITIES

Sec. 01-019. Land disturbance and construction activities required to have a permit.

- (a) All land disturbance and construction activities which discharge storm water directly or indirectly into the municipal separate storm sewer system will require a City of Helena Storm Water Discharge Permit prior to the commencement of the land disturbance or construction. It shall be unlawful for any person to conduct, or permit to be conducted, any land disturbing activity upon land owned or controlled by them without a permit issued under this ordinance if more than one (1) acre is disturbed and if the discharge flows into the MS4. For purposes of this ordinance the phrase "land disturbing activity" is defined as follows:

Land disturbing activity is any change which may result in soil erosion from

water and wind and the movement of sediments, directly or indirectly, into the community waters, including, but not limited to, clearing, dredging, grading, excavating and filling of land, except that the term shall not include the following:

- (1) such minor land disturbing activities as home gardens, individual home landscaping, home repairs, home maintenance work and other related activities which result in minor soil erosion;
- (2) the construction of single-family residences when built separately on lots within a subdivision which has a current City of Helena Storm Water Discharge Permit issued pursuant to this ordinance, provided that excavation is limited to trenches for the foundation, basements, utility service and sewer connections, and minor grading for driveways, yard areas and sidewalks;
- (3) individual utility service and sewer connections for single- or two-family residences;
- (4) construction, installation or maintenance of electrical, telephone and cable television lines and poles, provided these activities do not pose a significant threat of contamination to community waters; and
- (5) installation, maintenance and repair of any underground public utility lines when such activity occurs on an existing hard-surface road, street or sidewalk, provided the activity is confined to the area of the road, street or sidewalk which is hard-surfaced.

These activities may be undertaken without a permit; however, the persons conducting these excluded activities shall remain responsible for otherwise conducting those activities in accordance with the provisions of this ordinance and other applicable laws.

- (b) Permit application forms may be acquired from the Manager beginning April 1, 1999. Completed application forms are to be returned to the Manager. Upon receipt of the application, the Manager will evaluate the information provided and either deny a permit to the applicant or issue the applicant a City of Helena Storm Water Discharge Permit. An approved permit may require the applicant to implement additional structural and non-structural Best Management Practices to reduce or eliminate the

potential to discharge pollutants. If the application is denied, the Manager shall notify the applicant of deficiencies and allow the application to be revised and resubmitted. It shall be unlawful to commence land disturbance or construction activities as described in this Section prior to the issuance of a City of Helena Storm Water Discharge Permit. Once issued, a permit shall be valid for two (2) years, unless sooner revoked for violations of permit conditions, changes in applicable law, or other good cause. Upon project completion, the applicant shall notify the Manager and request termination of permit coverage. The Manager shall grant termination within thirty (30) days unless it is determined that the applicant has failed to meet the requirements of this ordinance, particularly those regarding proper soil stabilization.

- (c) The application for a Storm Water Discharge Permit for land disturbance and construction activities shall include, at a minimum, the following information:
- (1) name and telephone number of applicant;
 - (2) business or residence address of applicant;
 - (3) name and address of owner of subject property;
 - (4) address and legal description of subject property;
 - (5) name and address of the contractor and any subcontractors who shall perform the land disturbing activity and who shall implement and maintain the Best Management Practices;
 - (6) the nature, extent and purpose of the land disturbing activity including the size of the area for which the permit shall be applicable and a schedule for the starting and completion dates of the land disturbing activity;
 - (7) plans or a description of specific Best Management Practices that will be used to control the discharge of storm water runoff from the site, the extent of which shall be commensurate with the size of the project, severity of site conditions, and the potential for contamination of community waters; and
 - (8) any other information deemed necessary by the Manager to effectively evaluate the potential for contamination of the MS4 by storm water runoff.
- (d) All applicable construction sites must obtain coverage under ADEM NPDES General Permit ALR100000 or other applicable permits.

Sec. 01-020. General requirements for land disturbance activities.

No land disturbing activity shall be conducted within the City of Helena except in such manner that:

- (a) Stripping of vegetation, regrading and other development activities shall be conducted so as to minimize erosion. Clearing and grubbing must be held to the minimum necessary for grading and equipment operation. Construction shall be sequenced to minimize the exposure time of cleared surface area.
- (b) Property owners shall be responsible upon completion of land disturbing activities to leave slopes so that they will not erode, through such methods as revegetation, mulching, rip-rapping, or shotcrete/guniting. Regardless of the method used, the objective shall be to leave the site as erosion-free and maintenance-free as practicable.
- (c) Whenever feasible, natural vegetation shall be retained, protected and supplemented, especially adjacent to natural drainage ways. If feasible, natural streams flowing to and through the site shall be maintained in their natural channel and provided with a vegetative buffer zone.
- (d) Permanent or temporary soil stabilization must be applied to disturbed areas to the extent feasible within seven (7) days on areas that will remain unfinished for more than thirty (30) calendar days. Permanent soil stabilization with perennial vegetation shall be applied as soon as practicable after final grading is completed on any portion of the site. Soil stabilization refers to measures which protect soil from the erosive forces of wind, raindrop impact and flowing water, and includes the growing of grass, sod, application of straw, mulch, fabric mats, and the early application of gravel base on areas to be paved.
- (e) A permanent vegetative cover shall be established on disturbed areas not otherwise permanently stabilized.
- (f) To the extent necessary, sediment in runoff water shall be trapped by the use of sediment basins, silt traps or similar measures until the disturbed area is stabilized.
- (g) Erosion and sediment control measures must be in place and functional before earth moving operations begin and must be constructed and maintained throughout the construction period as necessary. Temporary measures may be removed at the beginning of the work day but shall be replaced at the end of the workday.
- (h) Structural controls shall be designed and maintained as required to prevent pollution. All surface water flowing toward the construction area shall, to the extent practicable, be 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 disturbed and/or drainage areas to effectively detain runoff and trap sediment.

- (i) All control measures shall be consistent with the *Alabama Handbook for Erosion Control, Sediment Control and Storm Water Management on Construction Sites and Urban Areas* published by the Alabama Soil and Water Conservation Committee and shall be checked and repaired as necessary to prevent the contamination of community waters.
- (j) The storm water runoff from the site shall contain no floating scum or oil, shall not cause an objectionable color contrast in the receiving water, and shall not contain any materials in concentrations sufficient to be hazardous or otherwise detrimental to humans, livestock wildlife, plant life, or fish and aquatic life in the receiving stream.

Sec. 01-021. Land disturbance and construction activities required to have an NPDES permit.

- (a) If an NPDES permit is required, a copy of the Notice of Intent (NOI) shall be submitted to the Manager with the City of Helena Storm Water Discharge Permit application. A copy of ADEM's verification of coverage shall also be submitted when available.
- (b) If the current NPDES permit should expire during land clearing or construction, a copy of the new NOI and ADEM's subsequent verification of coverage shall be submitted to the Manager.
- (c) The NOI shall be accompanied by the name of the contact person for NPDES permit compliance, including job title, site and office addresses and telephone numbers.
- (d) The Manager shall notify ADEM if a construction site requiring an NPDES permit that does not have such permit is discovered.

Sec. 01-022. Permit application fees.

Each application for the issuance of a City of Helena Storm Water Discharge Permit for land disturbance and construction activities shall be accompanied by a non-refundable fee of one hundred dollars (\$100.00) plus fifteen dollars per acre (\$15.00/acre).

Secs. 01-023 - - 01-027. Reserved.

DIVISION 4. GENERAL PERMIT REQUIREMENTS

Sec. 01-028. Availability of permit.

An approved copy of the City of Helena Storm Water Discharge Permit shall be stored in the

Sec. 01-029. Transfer of permit.

A City of Helena Storm Water Discharge Permit may be transferred only upon the filing of an amendment to the permit application or an amended or restated application containing all changes from the original application providing there are no changes in the operation of the industrial or commercial facility or construction site which may affect the quantity or quality of the storm water runoff. If there are to be any changes in the operation of the facility or construction site which may affect the quantity or quality of storm water runoff, then the new owner or operator shall reapply for a City of Helena Storm Water Discharge Permit prior to the beginning of operation of the facility or construction activities. The filing of an amended or restated application shall be treated as an interim permit allowing the continued operation of the facility or construction site pending review of the application by the Manager, which shall remain in force until the application shall be approved or denied by the Manager.

Sec. 01-030. Signatory requirements.

- (a) All applications and correspondence required by this ordinance to be submitted to the Manager shall be signed as follows:
- (1) Corporation: by a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy-making or decision-making functions for the corporation.
 - (2) Partnership or sole proprietorship: by a general partner or the proprietor.
 - (3) Municipality, State, Federal, or other public facility: by either a principal executive officer or the chief executive officer of the agency, or a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.
- (b) Any person signing any application or correspondence required by this article 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 have personally examined and am familiar with the information therein. 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,

Secs. 01-031- - 01-035. Reserved.

DIVISION 5. MONITORING AND INSPECTION

Sec. 01-036. Monitoring.

The Manager shall periodically monitor the quantity of and the concentration of pollutants in storm water discharges from the industrial and commercial facilities and construction sites permitted pursuant to this ordinance and from any other facilities or sites the Manager deems a potential source of contamination to the community waters, including those facilities and sites which hold current NPDES permits.

Sec. 01-037. Detections of illicit connections and improper disposal.

- (a) The Manager, or his or her duly authorized representatives, shall take appropriate steps to detect and eliminate illicit connections to the municipal separate storm sewer system.
- (b) The Manager, or his or her duly authorized representative, shall take appropriate steps to detect and eliminate improper discharges to the municipal separate storm sewer system.

Sec. 01-038. Inspections.

- (a) The Manager, or his or her designee, bearing proper credentials and identification, may enter and inspect all properties for regular periodic inspections, investigations, monitoring, observation, measurement, enforcement, sampling and testing, to effectuate the provisions of this ordinance and the City of Helena Storm Water Management Program. The Manager, or his or her designee, shall duly notify the owner of said property or the representative on site and the inspection shall be conducted at reasonable times.
- (b) Upon refusal by any property owner to permit an inspector to enter or continue an inspection, the inspector shall terminate the inspection or confine the inspection to areas concerning which no objection is raised. The inspector shall immediately report the refusal and the grounds to the Manager. The Manager may seek appropriate compulsory process.
- (c) In the event the Manager, or his or her designee, reasonably believes that discharges from the property into the MS4 or the community waters may cause an imminent and substantial threat to human health or the environment, the inspection may take place

at any time and without notice the owner of the property or a representative on site. The inspector shall present proper credentials upon reasonable request by the owner or representative.

- (d) At any time during the conduct of an inspection or at such other times as the Manager, or his or her designee, may request information from an owner or representative, the owner or representative may identify areas of the facility or establishment, material or processes which contain or which might reveal a trade secret. If the Manager, or his or her designee, has no clear or convincing reason to question such identification, the inspection report shall note that trade secret information has been omitted. To the extent practicable, the Manager shall protect all information which is designated as a trade secret by the owner or their representative.
- (e) In the event a substantial pollutant loading to the community waters exists, the Manager will take the following steps:
 - (1) Field Inspection to verify possible source of pollution, when needed.
 - (2) Additional sampling to verify possible source of pollution, if needed.
 - (3) Informing the owner and/or operator of the facility or site found to be the source of the problem and working with them to determine appropriate corrective actions.
 - (4) Following up with the owner and/or operator to determine the status of corrective actions.
 - (5) Enforcement procedures shall be as provided in Division 6 of this ordinance, if needed.
 - (6) If the source of the pollutant discharge is from an adjacent jurisdiction's MS4, the Manager will notify the adjacent jurisdiction and ADEM by phone and email.

Secs. 01-039 - - 01-043. Reserved.

DIVISION 6. ENFORCEMENT AND ABATEMENT

Sec.01-044. Unauthorized discharge a public nuisance.

Discharge of storm water in any manner 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

corrected or abated.

Sec. 01-045. Allowable non-storm water discharges.

The following direct or indirect discharges into the MS4 or the community waters are allowable under the terms of this ordinance unless determined by the Manager to be a source of contamination to the MS4 or the community waters:

- (1) waterline and fire hydrant flushings;
- (2) landscape irrigation;
- (3) rising ground waters;
- (4) uncontaminated ground water;
- (5) uncontaminated water from foundation and footing drains;
- (6) air conditioning condensation;
- (7) discharges from springs;
- (8) water from crawl space pumps;
- (9) lawn watering;
- (10) individual residential car washing;
- (11) flows from riparian habitats and wetlands;
- (12) dechlorinated swimming pool and hot tub discharges;
- (13) street wash water; and
- (14) discharges from fire-fighting activities.

Sec. 01-046. Illicit discharge and illegal dumping.

The following direct or indirect discharges into the MS4 or the community waters and direct or indirect discharges therein or thereto caused by or resulting from the following activities, practices and/or conditions are prohibited and shall be unlawful:

- (1) non-storm water discharges, except pursuant to a storm water discharge permit issued by ADEM or Section 01-045 of this ordinance;
- (2) chlorinated swimming pool or hot tub discharge;

- (3) discharge of any polluted household wastewater, such as, but not limited to, laundry washwater and dishwater, except to a sanitary sewer or septic system;
- (4) leaking sanitary sewers and connections, which shall have remained uncorrected for seven (7) days or more;

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- (5) leaking water lines which shall have remained uncorrected for seven (7) days or more;
- (6) commercial, industrial or public vehicle wash discharge;
- (7) garbage or sanitary waste disposal;
- (8) animal carcasses or animal fecal waste;
- (9) sewage dumping or dumping of sewage sludge;
- (10) dredged or spoil material;
- (11) solid or chemical waste such as oils, antifreeze, paint, paint thinners, solvents, gasoline/diesel; and
- (12) wrecked or discarded vehicles or equipment.

Sec. 01-047. Accidental discharges.

- (a) In the event of any discharge of a hazardous substance in amounts which could cause a threat to public drinking supplies, a "significant spill" or any other discharge which could constitute a threat to human health or the environment, the owner or operator of the facility shall give verbal notice to the Storm Water Manager and ADEM as soon as practicable, but in no event later than the close of business on the day the accidental discharge occurs or the day the discharger becomes aware of the circumstances. A written report must be provided by the discharger within five days of the time the discharger becomes aware of the circumstances, unless this requirement is waived by the Manager for good cause shown on a case-by-case basis, containing the following particulars: (1) a description of the discharge, (2) the exact dates and times of discharge, (3) the amount (may be estimated) of discharge, and (4) steps being taken to eliminate and prevent recurrence of the discharge.
- (b) The discharger shall take all reasonable steps to stop the discharge and minimize any adverse impact to the community waters, including such accelerated or additional monitoring as necessary to determine the nature and impact of the discharge. It shall not be a defense for the discharger in an enforcement action that it would have been necessary to halt or reduce the business or activity of the facility in order to maintain water quality and minimize any adverse impact that the discharge may cause.
- (c) It shall be unlawful for any person to fail to comply with the provisions of

Sec. 01-048. NPDES permits issued by ADEM.

- (a) Compliance with the conditions, limitations and restrictions set forth in an individual or general NPDES storm water discharge permit issued by ADEM shall be deemed compliance with the terms of this ordinance, excluding the requirements of Sections 01-010, 01-012, 01-021 and 01-047. However, all NPDES permit holders are subject to enforcement action under the terms of this ordinance for continued substantial violation of the NPDES permit, as determined by the Manager.

The following procedure shall be used for NPDES permit holders:

- (1) ADEM will provide the Manager with access to the NPDES storm water permits for any property within the City's MS4 area.
 - (2) The Manager will notify ADEM and the permit holder in writing when it has been determined that the NPDES permit holder is causing a continuing substantial pollutant load to the community waters.
 - (3) The Manager will rely on ADEM to regulate and take enforcement action in accordance with the requirements of the permit holder's NPDES permit.
 - (4) The City will still regulate and enforce the City's Storm Water Discharge Permit, subject to the restrictions in Section 01-048(b).
- (b) No enforcement action shall be taken by the City against any person for violation of the terms of this ordinance if any of the following occur:
 - (1) ADEM has issued a notice of violation with respect to the same alleged violation and is proceeding with enforcement action;
 - (2) ADEM has issued an administrative order with respect to the same alleged violation and is proceeding with enforcement action; or
 - (3) ADEM has commenced and is proceeding with enforcement action or has completed any other type of administrative or civil action with respect to the same alleged violation.
 - (4) The same alleged violation shall mean specific deficiencies on a specific date(s).

- (c) Any determination or resolution with respect to an alleged violation made by ADEM shall be final, and such alleged violation shall not be made the subject of any additional enforcement action by the City, provided, however, that enforcement action may be pursued by the City for other, continued or continuing violations.

Sec. 01-049. Administrative enforcement remedies.

- (a) Notification of Violation: Whenever the Manager finds that any applicant or any person discharging storm water has violated or is violating this ordinance or a City of Helena Storm Water Discharge Permit or order issued hereunder, the Manager or his or her agent may serve upon said discharger written notice of the violation. Within 24 hours of the receipt date of this notice, an explanation of the violation and a plan and schedule for the satisfactory correction and prevention thereof, to include specific required actions, shall be submitted to the Manager. Submission of this plan in no way relieves the discharger of liability for any violations occurring before or after receipt of the notice of violation. Within 48 hours, the illicit discharge must be removed. Where the removal of the discharge is not possible within this time, the operator of the illicit discharge must take all reasonable and prudent measures to minimize the discharge of pollutants to the MS4.
- (b) Consent Orders: The Manager is hereby empowered to enter into consent orders, assurances of voluntary compliance or other similar documents establishing an agreement with the person responsible for the noncompliance. Such orders will include specific action to be taken by the discharger to correct the noncompliance within a time period also specified by the order. Consent orders shall have the same force and effect as administrative orders issued pursuant to paragraph (d) below.
- (c) Show Cause Hearing: The Manager may order any person who causes or contributes to violation of this ordinance or Storm Water Discharge Permit or order issued hereunder, to show cause why a proposed enforcement action should not be taken. Notice shall be served on the person specifying the time and place for the meeting, the proposed enforcement action and the reasons for such action, and a request that the violator show cause why this proposed enforcement action should not be taken. The notice of the meeting shall be served personally or by registered or certified mail (return receipt requested) at least ten (10) days prior to the hearing. Such notice may be served on any principal executive, general partner or corporate officer.
- (d) Compliance Order: When the Manager finds that any person has violated or continues to violate this ordinance or a City of Helena Storm Water Discharge Permit or order issued hereunder, he or she may issue an order to the violator, directing that, following a specified time period, adequate structures and devices be installed or procedures implemented and properly operated. Orders may also contain such other requirements as might be reasonably necessary and appropriate to address the noncompliance, including the construction of appropriate structures, installation of

devices, self-monitoring and management practices.

- (e) Cease and Desist Orders: When the Manager finds that any person has violated or continues to violate this ordinance or a City of Helena Storm Water Discharge Permit

or order issued hereunder, the Manager may issue an order to cease and desist all such violations and direct those persons in noncompliance to:

- (1) comply forthwith; or
- (2) take such appropriate remedial or preventive action as may be needed to properly address a continuing or threatened violation, including halting operations and terminating the discharge.

Sec. 01-050. 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 Manager, which has not been appealed to the City Council within the time specified by such notice; or
- (d) violate any lawful order of the City Council within the time allowed by such order.

Said persons shall be guilty of a misdemeanor, and each day of such violation, failure or refusal to comply shall be deemed a separate offense and punishable accordingly. Any person found to be in violation of the provisions of this ordinance shall be punished by a fine of not less than twenty-five dollars (\$25.00) nor more than five hundred dollars (\$500.00) for each offense.

Sec.01-051. Civil penalty.

- (a) Any person who performs any of the following acts or omissions shall be subject to a civil penalty of up to five thousand dollars (\$5,000.00) per day each day during which the act or omission continues or occurs:
 - (1) fails to obtain any permit required by this ordinance;
 - (2) violates the terms or conditions of a permit issued pursuant to a

pretreatment program;

(3) violates a final determination or order of the City Council;

or

(4) violates any provisions of this ordinance.

(b) Any civil penalty shall be assessed in the following manner:

(1) The Manager may issue an assessment against any person responsible for the violation;

(2) Any person against whom an assessment has been issued may secure a review of such assessment by filing with the Manager a written petition setting forth the grounds and reasons for his or her objections and asking for a hearing in the matter involved before the City Council and if a petition for review of the assessment is not filed within thirty (30) days after the date the assessment is served, the violator shall be deemed to have consented to the assessment and it shall become final;

(3) Whenever any assessment has become final because of a person's failure to appeal the Manager's assessment, the Manager may apply to the appropriate court for a judgement and seek execution of such judgement, and the court, in such proceedings, shall treat a failure to appeal such assessment as a confession of judgement in the amount of the assessment;

(4) In assessing the civil penalty, the Manager may consider the following factors:

(i) whether the civil penalty imposed will be a substantial economic deterrent to the illegal activity;

(ii) damages to the City, including compensation for the damage or destruction of public storm water facilities, and also including any penalties, costs and attorneys' fees incurred by the City as a result of the illegal activity, as well as the expenses involved in enforcing this ordinance and the costs involved in rectifying any damages;

(iii) cause of the discharge or violation;

- (iv) the severity of the discharge and its effects upon public storm water facilities and upon the quality and quantity of the receiving waters;
 - (v) effectiveness of action taken by the violator to cease the violation;
 - (vi) the technical and economic reasonableness of reducing or eliminating the discharge; and
 - (vii) the economic benefit gained by the violator.
- (c) The City Council may establish, by regulation, a schedule of the amount of civil penalty which can be assessed by the Manager for certain specific violations or categories of violations.

Sec. 01-052. Judicial proceedings and relief.

- (a) The Manager may initiate proceedings in any court of competent jurisdiction against any person who has or is about to:
- (1) violate the provisions of this ordinance;
 - (2) violate the provisions of any permit issued pursuant to this ordinance;
 - (3) fail or refuse to comply with any lawful order issued by the Manager, which has not been timely appealed to the City Council, within the time allowed by this ordinance; or
 - (4) violates any lawful order of the City Council within the time allowed by such order.
- (b) Any person who shall commit any act or fail to perform any act declared unlawful under this ordinance shall be guilty of a misdemeanor, and each day of such violation or failure shall be deemed a separate offense and punishable accordingly.
- (c) The Manager, with the consent of the City Council of the City of Helena, may also initiate civil proceedings in any court of competent jurisdiction seeking monetary damages for any damages caused to publicly owned storm water facilities by any person, and to 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 Manager or the City Council.

Sec. 01-053. Disposition of permit fees, damage payments and penalties.

All permit fees collected pursuant to this ordinance, all damages collected under the provisions of Section 01-050 and civil penalties collected under Section 01-051, following adjustment for the expenses incurred in making such collections, shall be allocated and appropriated to the City of Helena for the administration of its storm water management programs.

Secs. 01-054 -- 01-058. Reserved.

DIVISION 7. CITY COUNCIL DUTIES AND POWERS; VARIANCES & HEARINGS

Sec. 01-059 – 01-060. Reserved.

Sec. 01-061. General duties of the City Council related to this ordinance.

In addition to any other duty or responsibility otherwise conferred upon the City Council (Council) by this chapter, the City Council shall have the duty and power as follows:

- (a) To recommend from time to time amendments or modifications of the provisions of this ordinance;
- (b) To hold hearings upon appeals from orders or actions of the Manager as may be provided under any provision of this chapter;
- (c) To hold hearings related to the suspension, revocation or modification of a City of Helena Storm Water Discharge Permit and issue appropriate orders relating thereto;
- (d) To hold such other hearings as may be required in the administration of this chapter and to make such determinations and issue such orders as may be necessary to effectuate the purposes of this ordinance;
- (e) To request assistance from any officer, agent or employee of the City of Helena and to

obtain such information or other assistance as the City Council might need;

- (f) The City Council, acting through its President or duly appointed agent, shall have the power to issue subpoenas requiring attendance and testimony of witnesses and the production of documentary evidence relevant to any matter properly heard by the Council; and
- (g) The Council President or President pro -tem shall be authorized to administer oaths to those persons giving testimony before the Council.

Sec. 01-062. Variances.

- (a) The City Council may grant a variance from the requirements of this ordinance providing to do so would not result in the violation of any state or federal law or regulation and exceptional circumstances applicable to the site exist such that strict adherence to the provisions of this ordinance will result in unnecessary hardship and will not result in a condition contrary to the intent of the ordinance.
- (b) A written petition for a variance shall be required and shall state the specific variance sought and the reasons, with supporting data, why a variance should be granted. The request shall include all information necessary to evaluate the proposed variance. The petition shall be filed with the Manager.
- (c) The Manager shall conduct a review of the request for a variance within ten (10) working days after receipt and may either support the petition or may object to the petition. If the Manager objects to the variance, he or she shall state the reasons therefor.
- (d) Once the Manager's review is complete or the ten (10) days for review have expired, the petition shall be subject to Council action at the next regularly scheduled meeting or at a special meeting called at the discretion of the Council President.

Sec.01-063. Meetings; quorum.

- (a) The City Council may hold such special meetings as the Council may find necessary to hear and decide upon matters related to this ordinance.
- (b) Three (3) members of the City Council shall constitute a quorum, but a lesser number may adjourn a meeting from day to day. Any substantive action of the Council shall require three (3) votes, but a majority of the quorum may decide any procedural matter.

- (a) When to be held: The City Council shall schedule an adjudicatory hearing to resolve disputed questions of fact and law whenever provided by any provision of this ordinance.
- (b) Record of hearing: At any such hearing, all testimony presented shall be under oath or upon solemn affirmation in lieu of oath. The City Council shall make a record of such hearing, but the same need not be a verbatim record. Any party coming before the Council shall have the right to have such hearing recorded stenographically, but in such event the record need not be transcribed unless any party seeks judicial review of the order or action of the Council as herein provided and in such event the parties seeking such judicial review shall pay for the transcription and provide the Council with the original of the transcript so that it may be certified to the court.
- (c) Subpoenas: The City Council President may issue or cause to be issued subpoenas requiring attendance and testimony of witnesses or the production of evidence, or both. A request for issuance of a subpoena shall be made by lodging with the Council President at least ten (10) days prior to the scheduled hearing date a written request for a subpoena setting forth the name and address of the party to be subpoenaed and identifying any evidence to be produced. Upon endorsement of a subpoena by the Council President or their duly appointed agent, the same shall be delivered to the Sheriff of Shelby County for service by any officer of the County, if the witness resides in the County. If the witness does not reside in the County, the Council President shall issue or cause to be issued a written request that the witness attend the hearing.
- (d) Depositions: Upon agreement of all parties, the testimony of any person may be taken by deposition or written interrogatories. Unless otherwise agreed, the deposition shall be taken in a manner consistent with state regulations, with the City Council President to rule on such matters as would require a ruling by the court under such rules.
- (e) Hearing procedure: The party at such hearing bearing the affirmative burden of proof

shall first call his or her witnesses, to be followed by witnesses called by other parties, to be followed by any witnesses which the City Council may desire to call. Rebuttal witnesses shall be called in the same order. The Council President shall rule on any evidentiary questions arising during such hearing and shall make such other rulings as may be necessary or advisable to facilitate an orderly hearing, subject to approval of the Council. The Council, the Manager, or his or her representative, and all parties shall have the right to examine any witness. The Council shall not be bound by or limited to rules of evidence applicable to legal proceedings.

- (f) Appeal to City Council of Manager's order: Any person aggrieved by any order or determination of the Manager may appeal said order or determination to the City Council and have such order or determination reviewed by the Council under the provisions of this section. A written notice of appeal shall be filed with the Manager and with the City Council President, and such notice shall set forth with particularity the action or inaction the Manager complained of and the relief sought by the person filing said appeal. A special meeting of the City Council may be called by the Council President upon the filing of such appeal, and the Council may, in its discretion, suspend the operation of the order or determination of the Manager until such time as the Council has acted upon the appeal.
- (g) Absence of City Council President: The City Council President Pro-Tempore shall possess all the authority delegated to the Council President by this section when acting in his or her absence or in his or her stead.
- (h) Review of City Council's decision: Any person aggrieved by any final order of determination of the City Council hereunder may within fifteen (15) thereafter appeal therefrom to the Circuit Court of Shelby County or other court within Shelby County having jurisdiction by filing with the Council a written notice of appeal specifying the judgment or decision from which appeal is taken. In case of such appeal, the Council shall cause a transcript of all the proceedings in the cause to be certified to the court to which the appeal is taken and the cause in such court shall be tried do novo.

ORDINANCE NUMBER 859-18

**AN ORDINANCE ESTABLISHING POST-CONSTRUCTION BEST
MANAGEMENT PRACTICES FOR PERMANENT STORMWATER
CONTROL STRUCTURES
FOR THE CITY OF HELENA, ALABAMA**

STORMWATER MANAGEMENT POST-CONSTRUCTION ORDINANCE

WHEREAS, the City of Helena operates under the requirements of the Alabama Department of Environmental Management (ADEM) National Pollutant Discharge Elimination System (NPDES) Permit; and

WHEREAS, this permit authorizes stormwater discharges from regulated small municipal separate storm sewer systems (MS4); and

WHEREAS, the City of Helena must be compliant with the ADEM NPDES Permit by developing, implementing, and enforcing a program to address post- construction stormwater management; and

WHEREAS, the City of Helena finds it necessary to enact an ordinance to address and enforce post-construction stormwater management standards on Qualifying Sites to prevent or minimize water quality impacts and ensure that the volume and velocity of pre-construction stormwater runoff is not significantly exceeded for the life of the property's use to the maximum extent practical (MEP).

**NOW, THEREFORE BE IT ORDAINED BY THE CITY COUNCIL OF THE
CITY OF HELENA, ALABAMA, AS FOLLOWS:**

Section 1 DEFINITIONS

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

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.

Green Infrastructure – a strategically planned network of natural and semi-natural areas with other environmental features designed and managed to deliver a wide range of ecosystem services.

Hydrology – Hydrology refers to the physical characteristics of storm water discharge, including the magnitude, duration, frequency, rate of change, and timing of discharge.

Low Impact Development – Low Impact Development (LID) emphasizes conservation and use of on-site natural features and other features to protect water quality and reduce stormwater runoff. This approach minimizes the project's impervious surface and loss of natural open space and implements engineered, small-scale hydrologic controls aiming to replicate the pre-development hydrologic regime of watersheds through infiltration, filtering, storing, evaporating, and detaining stormwater runoff close to its source.

Non-structural BMPs - Non-structural BMPs may include but not be limited to the following: preservation of open spaces and vegetation, establishment of conservation easements, establishment of buffers along streams and other waters, maintenance of vegetation, BMP inspection and maintenance, planning for future development or redevelopment.

Qualifying Site - Qualifying Site is any new development site or redevelopment site that results in a total land disturbance of one or more acres and sites that disturb less than one acre but are a part of a larger common development or sale that would disturb one or more acres.

Structural BMPs - Structural BMPs may include, but not be limited to the following: detention/retention devices, check dams, drainage swales, lined ditches, infiltration basins, porous pavement, outlet protection, velocity dissipation devices, slope protection, constructed wetlands, rain gardens, catch basin inserts, vegetated filter strips, and rain barrels.

Section 2 ADMINISTRATION

The City's Stormwater Manager or his or her duly authorized representative who is a qualified credentialed professional or who has had sufficient experience dealing with BMP design to enable them to enforce the provisions of this ordinance, including any individual or agency contracted to provide such service, shall be responsible, on behalf of the City, to enforce the provisions of this ordinance.

Section 3
POST-CONSTRUCTION BMP DESIGN

Section 3.1 Design Intent and Standards

- (a) The post-construction BMPs for qualifying sites, which may include a combination of structural BMPs and/or non-structural BMPs including low impact development and green infrastructure practices, must be designed to reduce the discharge of pollutants and ensure that the volume and velocity of pre-construction stormwater runoff is not significantly exceeded and water quality is not adversely affected, to the maximum extent practicable, over the life of the property's use. These BMPs may include, but not be limited to:
- i. Minimize the amount of impervious surfaces and/or increase the use of more pervious surfaces such as permeable pavers, permeable pavements, reinforced turf, etc.;
 - ii. Preserve and protect ecologically sensitive areas that provide water quality benefits;
 - iii. Provide vegetated buffers along waterways and reduce discharges to surface waters from pervious surfaces such as parking lots;
 - iv. Implement policies to protect trees, native soils and other vegetation; and
 - v. Minimize topsoil stripping and compacted soils where feasible.
- (b) Landowners and developers are encouraged to incorporate the use of low impact development (LID) and green infrastructure where feasible. Refer to Section 3.2 for references on low impact development.
- (c) Landowners and developers must 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 water quality BMPs.
- (d) For controlling and minimizing runoff volume, peak flow rate and outlet velocity, two criteria shall be checked:
1. The post-development flows must be equal or less than the pre-development flows at the outfall point of the development.
 2. No more than a 1% increase in flows will be allowed at a point downstream where the site area is approximately 10% of the drainage basin area (i.e. 10% downstream analysis). The 10% analysis point shall be the point downstream where the site drainage area is approximately 10% of the overall drainage basin area. If the outfall point of the development is approximately 10% or less of the overall drainage basin area, then the outfall point of the development will be the 10% analysis point.

For the 10% downstream analysis, the design engineer shall:

- a. Identify all affected existing structures between lower limit of site and 10% percent analysis point and determine the impacts to these existing structures;
- b. Provide an overall pre-development vs. post-development description and analysis;
- c. Describe and show on a topographic map all existing culverts, obstructions or improvements, existing and potential erosion problems, and any known existing drainage complaints between the downstream property line and the 10% analysis point;

- d. Provide pre-development vs. post-development hydrograph comparisons for the one-, two-, five-, ten-, 25-, 50- and 100-year storms for 10% analysis point;
 - e. Provide a detailed written description of the first 500 feet downstream of the site including at least one photograph looking downstream with some object included in the photograph for scale;
 - f. If the 10% downstream analysis indicates that adverse impacts are expected, provide storm water detention/retention in basin(s) for the one-, two-, five-, ten-, 25-, 50- and 100-year storm event. A 1-percent increase may be allowable if no existing adverse conditions exist.
- (e) Where detention or retention ponds are used to reduce peak flows and/or velocities, these ponds shall have the following design criteria:
1. The base design storm for detention pond design shall be the 25-year, 24-hour storm. The two-, five-, ten-, 50- and 100-year storm events shall also be checked to determine if there are any adverse impacts for these storms.
 2. All ponds must have at least 12 inches of freeboard based on the 100-year storm.
 3. The emergency spillway shall be designed to convey the 100-year storm. The overflow spillway shall be sodded, paved or riprapped as required to prevent erosion. In lieu of a spillway, an overflow, designed to convey the 100-year storm, may be incorporated into the outlet control structure.
 4. All designs should consider the ultimate saturation of the development and tributary.
 5. A low flow ditch/swale with a minimum slope of 1% for grass or 0.5% if paved shall be included in the bottom of the pond to the outfall structure.
 6. The outlet control structure shall have a trash rack(s) with a maximum opening of four inches.
 7. If the height of the sides of the pond/dam are above 10', additional stability analysis may be required.
 8. The City may require that ponds be enclosed with a minimum five-foot-tall black, vinyl coated chain link fence with at least one four-foot wide access gate and one 10' wide gate for maintenance vehicle access. Factors in determining the need for fencing may include the size of the pond, the depth of the water in the pond, the location of the pond on the site, type and density of adjacent development (residential, commercial, institutional, etc.). In areas highly visible from public right-of-way, the City may require that the pond be screened from view with landscape planting. The developer or engineer should coordinate with the City to determine the need for fencing or landscaping around detention ponds.
 9. The design engineer shall submit a no-adverse impacts letter.
 10. Any requests for deviations from these detention pond requirements shall be filed with the City Building Official in the form of a variance request and shall be accompanied by technical engineering data concerning the unusual conditions, hardships, and proposed deviations.
- (f) Downstream watercourses and receiving conveyances shall be analyzed to determine post-construction 25-year flow channel velocities and stability of the channel bottom and sides. If the stability of the existing channel bottom and/or sides are not stable, detention, channel improvements/protection or other best management practices (BMPs) may be required. The design engineer shall submit calculations showing peak flows, flow depths, flow velocity, channel stability and existing and/or proposed channel cross section and channel lining for review in the storm water management/drainage design

report submitted as part of the plan review process.

Section 3.2 Design References

- (a) By reference in this Section, the City adopts the following as design references to meet the design standards:
1. The latest version of the *Alabama Handbook for Erosion Control, Sedimentation Control and Stormwater Management on Construction Sites and Urban Areas, Volumes 1 and 2.*
 2. The latest version of the *Low Impact Development Handbook for the State of Alabama.*
 3. Any storm water design manual approved by the City that meets the design requirement of this ordinance.

Section 4 APPLICATION REQUIREMENTS

As part of the Storm Water Discharge Permit application, all Qualifying Sites shall include the following components:

Section 4.1 Post-Construction BMP Design and Construction

- (a) Procedures and strategies of the structural BMPs and/or non-structural BMPs that meet the design standards for Qualifying Sites found in Section 3 of this ordinance will be submitted to the City for review and approval. A post-construction BMP plan shall be part of the construction plans for Qualifying Sites and submitted to the City for review and approval as an integral part of the site-plan approval process.
- (b) The person or entity that will be responsible for the long-term operation and maintenance of the post-construction BMPs shall be shown in the post-construction BMP plans and in a note on the subdivision or development plat.
- (c) Submittal to the City of a certified as-built of the BMPs and a letter of substantial compliance from the design engineer are required prior to approval of the final subdivision plat or within 30 days after completion of construction, whichever is sooner.

Section 4.2 Post-Construction BMP Inspection Plan

- (a) The developer/owner/operator of the post-construction BMPs noted in Section 4.1(b) shall perform an inspection by the BMPs at least once per year to ensure that design standards are being met. Inspection reports including corrective actions for poorly functioning BMPs and routine maintenance records for BMPs shall be submitted to the City on an annual basis prior to September 30. The City will make these inspections available to ADEM upon request. The minimum documentation requirements for inspections are as follows:
1. Site name, location, and address
 2. Site owner and responsible party/operator information (name, address, phone number, fax, and email)
 3. Inspection date(s)
 4. Facility type
 5. Description of the type and location of the BMPs that must be inspected and the condition of BMP's needed to ensure proper functioning. Description of the existing storm water BMP condition may include the quality of: vegetation and

soils, inlet and outlet channels and structures, embankments, slopes, and safety benches; permeable paving; 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;

6. Photographic documentation of all critical storm water BMP components;
7. Specific maintenance items or corrective actions needed by the owner/operator of the storm water control or BMP;
8. Name and signature of qualified inspector
9. Maintenance agreements for long-term BMP operations and maintenance.

Section 4.3 Post-Construction BMP Operation and Maintenance Plan

- (a) The landowner or developer shall develop a Post-Construction BMP Operation and Maintenance Plan which shall be submitted to the City for review and approval as part of the as-built plans submittal and approval process. The plan shall identify the necessary recurring maintenance and operational activities and schedule of those activities necessary to ensure that the BMPs continue to meet the original design intent and standards of this ordinance. The Operation and Maintenance Plan shall also designate the party that is responsible and funding mechanism necessary to carry out the Plan.
- (b) One or more of the following shall be required (as determined by the City) to establish the responsible party for long-term operation and maintenance. The document(s) shall be provided to the City for review. Upon approval, an executed copy shall be put on file in the Building, Planning and Development Department:
 1. The developer's signed statement accepting responsibility for maintenance until the maintenance responsibility is legally transferred to another party.
 2. Written conditions in the sales or lease agreement that require the buyer or lessee/tenant to assume responsibility for maintenance.
 3. Written conditions in project conditions, covenants, and restrictions for residential properties assigning maintenance responsibilities to a home/property owner's association or other appropriate group, for maintenance of structural and treatment control management practices.
 4. Any other legally enforceable agreement that assigns permanent responsibility for maintenance of structural or treatment control management practices to a person or entity.

Section 5 ENFORCEMENT AND ABATEMENT

In the event that the BMPs do not meet the design, operation, or maintenance standards required by this ordinance, the City shall notify, in writing, the party responsible for the operation and maintenance of the BMPs. Upon receipt of that notice, the responsible party shall have 14 calendar days, or such additional time as the City shall determine to be reasonably necessary to complete the action, to make to address deficiencies, perform maintenance and repairs of the BMPs in an approved manner. In the event that corrective action is not undertaken within that time, the City may correct the violation of the design standards, operation, or maintenance by performing all necessary work to place the BMPs in proper working condition. The cost of any corrective action by the City under this Section shall be billed to the responsible party. If the responsible party refuses to pay the bill, the City is entitled to bring an action against the responsible party to pay, file a lien against the property, or both. Costs shall include interest, collection fees, and reasonable attorney fees.

The City shall also have the authority to issue a Stop Work Order on any other components of the development to ensure that the BMPs are properly installed and maintained.

Section 6 MISCELLANEOUS

Section 6.1 Notices.

- (a) Whenever the City is required or permitted to give a notice to any party, such notice must be in writing. Such notice or document may be delivered by personal delivery, certified mail (return receipt requested), registered mail (return receipt requested) or a generally recognized carrier, to the address of such party which is in the records of the City or is otherwise known to the City.

Section 6.2 References.

- (a) Whenever a Section is referred to in this ordinance, unless the context clearly indicates the contrary, such reference shall be to a section of this ordinance.

Section 6.3 Severability.

- (a) 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 6.4 Captions.

- (a) The captions of Sections and sections are for the purpose of reference only, and such captions shall not affect the meaning of any provision of this ordinance.

Section 6.5 Ultimate Responsibility.

- (a) The standards set forth herein and promulgated pursuant to this ordinance are minimum standards. Therefore, this ordinance does not intend nor imply that compliance by any person will ensure that there will be no contamination, pollution, nor unauthorized discharge of pollutants.

Section 6.6 Effective Date.

This Ordinance Number 859-18 shall be published/posted as required by Alabama Law and shall become effective on October 1, 2018.

ORDINANCE 859-18 DONE, ORDERED, ADOPTED and APPROVED this the 24th day of September, 2018.

[SEAL]





Mark R. Hall, Mayor



Leigh Hulsey, Council Member

ATTEST:

absent

Mike Jones, Council Member



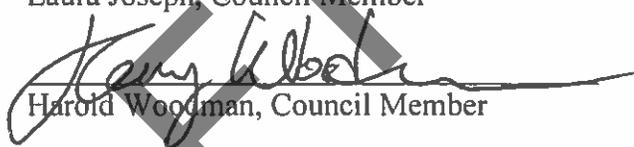
Alice Lobell, Council Member



Amanda C. Traywick, City Clerk

absent

Laura Joseph, Council Member



Harold Woodman, Council Member

DRAFT

DRAFT

SUBDIVISION REGULATIONS
CITY OF HELENA, ALABAMA

DRAFT

Adopted by the
HELENA PLANNING COMMISSION

Typed Revisions 4/5/2005

DRAFT

SUBDIVISION REGULATIONS CITY OF HELENA, ALABAMA

ARTICLE 1. GENERAL PROVISIONS

SECTION 1:01 **Authority**

Under the provisions of Section 797 through 803 of Title 37 of The 1940 Code of Alabama, which provisions are hereby made a part hereof, these following regulations governing the Subdivision of land are hereby adopted by the Planning Commission, City of Helena, Alabama at its regular meeting on April 21, 1972. A copy of these regulations shall be certified to the Probate Judge of Shelby County, Alabama and to the Clerk of the City of Helena, Alabama.

SECTION 1:02 **Jurisdiction**

From and after the date of adoption, these regulations shall govern each and every subdivision of land within the corporate limits of the City of Helena, Alabama, as now or hereafter established and within such territory outside the corporate limits of the City of Helena, Alabama as the Planning Commission shall now and hereafter have within its jurisdiction.

SECTION 1:03 **Separability and Severability**

The provisions of this Act are severable. Should any article, section, sub-section or provision of these regulations be declared by a court of competent jurisdiction to be invalid or unconstitutional, such decision shall not effect the validity or constitutionality of these regulations as a whole or any part thereof other than the part so declared to be invalid or unconstitutional.

SECTION 1:04 **Amendments**

The Planning Commission may from time to time adopt amendments that will tend to increase the effectiveness of these regulations or expedite the approval of subdivision plats. These regulations and amendments thereto may be changed or amended by the Planning Commission after a public hearing by giving due notice as required by law.

SECTION 1:05 **Penalty**

The Planning Commission is hereby authorized to provide a penalty not to exceed \$100.00 per lot to be paid to anyone who subdivides property and conveys lots therefrom without first have recorded the plat of such subdivision as is herein provided.

SECTION 1:06 **Definitions**

- (a) **Alley:** Any public right-of-way designed primarily for vehicular access to the back or side of premises otherwise abutting on a street.

- (b) **The Helena City Council:** The chief legislative body of the City of Helena, Alabama.

- (c) **Curb or Curb Line:** The inside vertical face of a masonry curb, the center line of a valley gutter or the edge of the pavement where no curb or gutters exist.
- (d) **Dedication:** The deliberate assignation of land by its owners for any general or public uses, reserving to himself no other rights than such as are compatible with the full exercise and enjoyment of the public uses to which the property has been devoted.
- (e) **Engineer:** A Professional Engineer and registered by the State of Alabama Board of Registration for Professional Engineers and Surveyors.
- (f) **Final Plat:** The completed subdivision plat in form for approval and recording.
- (g) **Lot:** A parcel or portion of land in a subdivision or plat of land, separated from other parcels or portions by description as on a subdivision of record or survey map or by metes and bounds.
- (h) **Planning Commission:** The City of Helena Planning Commission.
- (i) **Preliminary Plat:** A tentative plat of proposed subdivision for presentation to the Planning Commission for its consideration.
- (j) **Roadway:** That portion of a street between the regularly established curb lines or that part of a street or alley devoted to vehicular traffic.
- (k) **Sidewalk Area:** That portion of a street not included in the roadway and devoted in whole or in part to pedestrian traffic.
- (l) **Street:** A public right-of-way for vehicular and pedestrian traffic whether designated as a street, highway, thoroughfare, parkway, throughway, road, avenue, boulevard, land, place, or however otherwise designated, excepting, however an alley.
- (m) **Subdivider or Applicant:** Any individual, firm, association, syndicate, co-partnership, corporation, trust or any other legal entity commencing proceedings under these regulations to effect a subdivision of land hereunder for himself or for another.
- (n) **Subdivision:** The division of a lot, tract, or parcel of land into two (2) or more lots, plats, sites or other divisions of land, whether described by metes and bounds or by any other description, for the purpose, whether immediate or future, of sale or of building development. It includes re-subdivision and, when appropriate to the context, relates to the process of subdividing or to the land or territory subdivided.
- (o) **Surveyor:** A land surveyor and registered by the State of Alabama Board of Registration for Professional Engineers and Land Surveyors.
- (p) **City Engineer:** The person or firm designated by the City of Helena to provide engineering services in the administration and enforcement of the Subdivision Regulations.

Add:

Storm Water Best Management Practice (BMP): activities, prohibition of practices, maintenance procedures, and other management practices implemented to prevent or reduce the discharge of pollutants to waters of the State. Also, treatment systems operating procedures, and practices to control facility runoff, spillage or leaks, sludge or water disposal, and/or drainage from raw material storage.

ARTICLE 2. PROCEDURE

SECTION 2:01 **Application for Approval**

- (a) To obtain approval of a proposed subdivision, the subdivider or applicant shall submit to the Planning Commission a preliminary plat, a vicinity sketch, a list of the names and addresses of owners of record of parcels of land immediately adjoining the proposed subdivision, and a final plat prepared in accordance with the requirements as set forth in these regulations. No owner of land or subdivider shall proceed with improvement or sale of land subdivided without the written approval of the Planning Commission.
- (b) The subdivider shall, in addition, submit four (4) copies of the preliminary plat and three (3) copies of a vicinity sketch to the Office and the Helena Planning Commission at least twenty-one (21) days prior to the regular scheduled meeting of the Planning Commission.
- (c) The Helena Planning Commission shall forward one (1) of said copies to the City Engineer who shall submit his written recommendations to the Planning Commission by the time of its initial hearing on said plat.

SECTION 2:02 **Fees and Notice**

- (a) To partially defray the cost of filing said application, notifying interested parties, investigation, and holding a hearing upon the preliminary plat, a fee of one hundred fifty dollars (\$150.00) shall be paid to the Planning Commission by the subdivider at the time of filing the application.
- (b) Notice by certified mail to parties in interest (applicant and abutting property owners) shall be given at least five (5) days prior to the hearing on the preliminary plat, except as provided in Article 2, Section 2:02.
- (c) When application is made for approval of a subdivision under the provisions of Article 2, Section 2:09, a final plat fee of five dollars (\$5.00) together with the cost of giving legal notice, shall be paid at the time of filing the application.

SECTION 2:03 **Preliminary Plat Approval**

The Planning Commission shall approve, approve conditionally, or disapprove such preliminary plat within thirty (30) days after the submission thereof at its regular meeting. If approved conditionally, the conditions and reasons therefore shall be stated and if necessary the Planning Commission may require the subdivider to submit a revised preliminary plat. If any of the requirements are modified or waived, the reasons for such shall be specified. If the Planning Commission should disapprove the preliminary plat, the reasons for such action shall be stated and if possible recommendations made on the basis of which the proposed subdivision would be approved. Five (5) copies of preliminary plat to be submitted with application for request of the preliminary plat and eight (8) reduced copies (11x17). The approval of the preliminary plat shall not be deemed final acceptance but rather an expression of approval of the subdivision layout as proposed on the preliminary plat.

SECTION 2:04 **Effect of Preliminary Plat Approval**

Receipt of the approved copy of the preliminary plat by the subdivider is authorization that he may proceed with the staking of streets and lots in preparation for final platting.

SECTION 2:05 **Engineering Requirements**

- (a) The subdivider shall furnish the City Engineer all plans and information necessary for engineering consideration and approval for the construction of the proposed improvements as requested by the City Engineer. Such plans and information shall be furnished separately and apart from the preliminary plat and vicinity sketch, and shall be certified by a Registered Professional Engineer, except as provided in Article 2, Section 2:09.
- (b) Before starting construction, necessary arrangements must be made between the subdivider and the City Engineer for adequate laboratory and construction inspection to insure that the proposed improvements shall comply with the requirements of Helena, Alabama. All testing shall be the responsibility of the sub-divider and shall be done by an approved Test

Revise the first sentence of Section 2:06 (a)
The subdivider shall file the final plat (original and four (4) copies) and the required as-built drawings with the Helena Planning Commission.....

SECTION 2:06 **Final Plat and Execu**

- (a) The subdivider shall file the final plat and four (4) copies thereof with the Helena Planning Commission at least twenty-one (21) days prior to the date of the meeting of the Planning Commission at which time it is to be considered.
- (b) All final plats shall have been signed and executed by all necessary parties before being filed.

SECTION 2:07 **Approval of Final Plat**

(c) The subdivider shall submit proof of long-term operation and maintenance of Storm Water BMPs, including one of the following:

- 1. The subdivider's signed statement accepting responsibility for maintenance until the maintenance responsibility is legally transferred to another party; and/or
- 2. Written conditions in the sales or lease agreement that require the recipient to assume responsibility for maintenance; and/or
- 3. Written conditions in the project conditions, covenants, and restrictions for residential properties assigning maintenance responsibilities to a home owners association, or other appropriate group; and/or
- 4. Any other legally enforceable agreement that assigns permanent responsibility for maintenance.

Operation and maintenance of Storm Water BMPs includes annual inspections and making any required corrective actions to ensure proper operation. Annual inspections must be performed by September 30 and reports sent to the City Engineer by October 31 each year, and the report shall include the following:

- 1. Facility Type
- 2. Inspection Date
- 3. Name and Signature of Inspector
- 4. Site Location
- 5. Owner Information (name, address, phone number, fax, e-mail)
- 6. Description of the Storm Water BMP condition
- 7. Photographic documentation of all critical Storm Water BMP components
- 8. Specific maintenance items or violations that need to be corrected
- 9. Maintenance agreements

SECTION 2:08 **Final Plat Fees and Recording**

- (a) When application is made for final plat approval, the subdivider shall pay an additional fee of five dollars (\$5.00) per lot in the subdivision to partially defray the expense on investigating, hearing and acting upon the final plat.
- (b) The final plat shall be filed for record in the office of the Probate Judge of Shelby County, Alabama by the subdivider after Planning Commission approval is affixed thereupon.
- (c) The subdivider shall then provide the Planning Commission with the map book, volume and page numbers where the final plat is recorded.

SECTION 2:09 **Small Subdivisions and Re-Subdivisions**

- (d) Where a proposed subdivision is of such small size and contains so few lots as to present no engineering problems and few, if any, planning problems, the Planning Commission may, with the approval of the City Engineer, waive the filing of the preliminary plat, may require only four (4) copies of the final plat and three (3) copies of the vicinity sketch, and may approve and final plat.
 - 1. At the time of hearing or
 - 2. At the time of filing without hearing
- (b) Where applications for subdivisions are filed under (a) above, such shall be filed together with all maps and other matter on or before 5:00 PM, twenty-one (21) days prior to a regular scheduled meeting of the Planning Commission.
- (c) Where applications for subdivisions are filed under (a) above, the Planning Commission may at its discretion, with the approval of the City Engineer waive the requirements of Article 2, Section 2:02 subsection (b) or any of the requirements of Article 3 and 4 when it is deemed that the strict enforcement of these provisions will cause undue hardship in the subdivision of small parcels of land.
- (d) When application is made for approval of a subdivision under the provisions of Article 2, Section 2:09, a final plat fee of five dollars (\$5.00) together with the cost of giving legal notice, shall be paid at the time of filing the application.

ARTICLE 3 PLAT REQUIREMENTS

Except as provided in Article 2, Section 2:09, for small subdivisions, the following plat requirements shall apply.

SECTION 3:01 **Preliminary Plat**

The preliminary plat shall show the following:

- (a) Title, graphic scale, written scale, north arrow, date, name and registration number of surveyor. The scale shall be sufficient to accurately portray existing conditions and proposed improvements.
- (b) Topography: Based on U.S. Geological Survey or U.S. Coast and Geodetic Survey sea level datum. On grades of five percent (5%) or less, contours shall be shown at one foot (1') intervals. On grades between five percent (5%) and ten percent (10%), contours shall be shown at two foot (2') intervals. On grades greater than ten percent (10%), contours shall be shown at five foot (5') intervals unless otherwise specified by the Planning Commission.
- (c) Names of all streets, highways or roads: Names shall not be in conflict with other named streets within the City or County.
- (d) Right-of-way and Easements: The location, dimensions and purposes of all easements shall be shown. All street and road right-of-way and roadway or pavement widths shall be shown. Approximate locations and dimensions will be permitted.
- (e) Utilities: Location of existing or proposed utilities on or adjacent to the tract to be subdivided, including size and elevation.
- (f) Lot Lines: Lot and block numbers and approximate dimensions.
- (g) Purpose of subdivision.
- (h) Proposed Street Lights and Signs: Location, size and type.
- (i) Public Facilities: All proposed public facilities, including schools, parks, and public open spaces, shall be shown.
- (j) Location: Quarter section, section, township and range with approximate ties to all existing quarter section or section corners within or close to the proposed subdivision.
- (k) Names and addresses of record owners of the property, including existing mortgages and subdivider.
- (l) Names and addresses of record of adjoining lots or parcels of land.
- (m) Certificate of, or letter from the Stand and/or County Health Department indicating their approval of the proposed water supply and sanitary facilities.

- (n) If any portion of the land of the proposed subdivision is subject to inundation by storm drainage, overflow, or ponding of local storm water, such fact and portion shall be clearly shown and identified. **Proposed storm water BMPs shall be shown.**
- (o) Any other information that may be considered necessary by the Planning Commission for full and proper consideration of the proposed subdivision.

SECTION 3:02 **Vicinity Sketch**

A vicinity sketch or key map shall be shown on, or accompany the preliminary plat. This sketch or map shall show all existing subdivisions, streets and tract lines of acreage parcels and right-of-way widths of all streets abutting the proposed subdivision. It shall also show how streets and alleys in the proposed subdivision may connect with existing and proposed streets and alleys in neighboring subdivisions or undeveloped property to produce the most advantageous development of the entire neighboring area.

SECTION 3:03 **Final Plat**

The final plat shall be an original drawing in ink, on cloth or film and shall be referenced to an accepted section corner based on the U.S. Government survey of the area. A resurvey of a part of a subdivision, previously referenced to an accepted section corner, may be referenced to the original survey. All items shown on the preliminary plat shall also be shown on the final plat except as provided below.

Contours may be eliminated unless otherwise specified by the Planning Commission.

Right-of-Way lines, easements and property lines shall be shown with accurate dimensions and bearings; deflection angles, radii, arcs, and central angles of all curves.

Accurate grades shall be shown on all streets or roadways.

The final plat shall also show the following:

- (a) The purpose for which sites are dedicated or reserved, it being understood that any reservations or areas shall be subject to the proper zoning, if applicable.
- (b) The minimum building setback line on all lots and other sites in those areas subject to the Helena Zoning Ordinance.
- (c) The location and description of monuments. (Iron pipes shall be designated by a small open circle at point of installation.)
- (d) Reference to recorded subdivision plats of adjoining platted land by map, book, volume and page number.
- (e) Space for approval of the City Engineer and the Helena Planning Commission and the County Health Officer.
- (f) Where a street or alley has been vacated, a note shall be shown on the plat indicating such and referring to the recorded instruments of vacation by deed book and page number.

- (g) If there are existing structures on land proposed to be subdivided, three (3) copies of a survey plot plan showing the exact locations of such instruments with their relation to the proposed subdivision shall accompany the final plat, one (1) of which shall be forwarded to the City Engineer.
- (h) The final plat shall be accompanied by three (3) copies of any protective covenants running with the land in form for recording.
- (i) On all plats when there is no mortgagee, whether there is a dedication of property for street purposes or not, a certificate substantially in form as follows:

THE STATE OF ALABAMA
CITY OF HELENA

The undersigned _____, Registered Land Surveyor, State of Alabama, and _____, owner(s) hereby certify that this plat or map was made pursuant to a survey made by said surveyor and that said survey and this plat or map were made at the instance of said owner(s); that this plat or map is a true and correct map of lands shown therein and known as _____ showing the subdivisions into which it is proposed to divide said lands, giving the length and bearings of the boundaries of each lot and its number, showing the streets, alleys and public grounds, giving the bearings, length, width and name of each street, as well as the number of each lot and block, and showing the relation of the lands to the government survey (or, if the plat is a resurvey of an existing recorded subdivision, "showing the relation of the lands to the survey of _____ as recorded in the office of the Probate Judge of Shelby County, Alabama in map book _____, page _____; and that iron pipes have been installed at all lot corners and curve points as shown and designated by small open circles on said plat or map. Said owner(s) also certifies (certify) that he (she, they, it) is (are) the owner(s) of said lands and that the same are not subject to any mortgage.

Dated _____

(Execution and acknowledgment by Surveyor and Owner(s))

- (j) On all plats when there is a mortgagee, whether there is a dedication of property for street purposes or not, a certificate substantially in form as follows:

THE STATE OF ALABAMA
CITY OF HELENA

The undersigned _____, Registered Land Surveyor, State of Alabama, and _____, owner(s) hereby certify that this plat or map was made pursuant to a survey made by said surveyor and that said survey and this plat or map were made at the instance of said owner(s); that this plat or map is a true and correct map of lands shown therein and known as _____ showing the subdivisions into which it is proposed to divide said lands, giving the length and bearings of the boundaries of each lot and its number, showing the streets, alleys and public grounds, giving the bearings, length, width and name of each street, as well as the number of each lot and block, and showing the relation of the lands to the government survey (or, if the plat is a resurvey of an existing recorded subdivision, "showing the relation of the lands to the survey of _____ as recorded in the office of the Probate Judge of Shelby County, Alabama in map book _____, page _____; and that iron pipes have been installed at all lot corners and curve points as shown and designated by small open circles on said plat or map. Said owner(s) also certifies (certify) that he (she, they, it) is (are) the owner(s) of said lands and that the same are not subject to any mortgage, except a mortgage or mortgages held by the following mortgagee(s):

_____.

Dated _____

(Execution and acknowledgment by Surveyor, Owner(s) and Mortgagee(s))

- (a) Notary's acknowledgment of the certificate referred to in (i) or (j) above, substantially in form as follows:

STATE OF ALABAMA
CITY OF HELENA

I, _____, as Notary Public, in and for said County and State, do hereby certify that _____, whose name is signed to the foregoing certificate as a surveyor, and _____, whose name is signed to same as Owner (and _____, whose name is signed same as mortgagee), all of whom are known to me, acknowledge before me, on this date, that after having been duly informed of the contents of said certificate, they executed same voluntarily as such individuals (or in any other capabilities) with full authority therefor.

Given under my hand and seal this _____ day of _____, _____

Notary Public

(Seal)

- (l) On all plats where there is a dedication of land for street purposes; whether in the form of new streets, additional right-of-way for existing streets, or merely curve radii where there were angle corners formerly existing, a resolution substantially in form as follows:

BE IT REVOLVED BY THE HELENA CITY COUNCIL that the assent of this body be, and the same hereby is, given to the dedication of the streets, alleys, and public grounds as shown on plat or map of _____, which said plat or map is certified to have been made by _____ as surveyor, at the instance of _____, as owner, and has been exhibited to this Board; said plat or map being further identified by a recital of the approval of this Board signed by _____, City Clerk, of even date herewith.

- (m) The final plat, as referred to in Article 2, Section 2:09, for small subdivisions shall be an original drawing in ink, on cloth or film and shall be referenced to an accepted section corner based on the U.S. Government Survey of the area. A resurvey of a part of a subdivision may be referenced to the original subdivision. This plat shall show as a minimum the following:

- (1) Title, graphic scale, written scale, north arrow, date and name of person making the survey. The scale shall be sufficient to accurately portray existing conditions and proposed improvements.

- (2) Purpose of Subdivision
- (3) Tract boundary lines, right-of-way lines of streets, easements, and other rights-of-way, and property lines of lots, with accurate dimensions and bearings, deflection angles, radii, arcs, and central angles of all curves.
- (4) Number to identify each lot or site.
- (5) Location and description of monuments. (Iron pipes shall be designated by a small open circle at point of installation.)
- (6) Reference to recorded subdivision plats of adjoining platted land by map, book, volume, and page number.
- (7) Names and addresses of the owners of the property, including existing mortgagee, subdivider, and owners of adjoining lots or parcels of land.
- (8) Certificate of, or letter from the State and/or County Health Department indicating their approval of the proposed water supply and sanitary facilities.
- (9) Space for the approval of the City Engineer and the Planning Commission.

SECTION 3:04 **Vacation of Public Lands**

The vacation of public ways is a function of the Helena City Council. However, the effect of vacating public ways establishing new property lines of abutting properties in the centers of such vacated ways. The applicant shall, therefore, within a reasonable time after the passage of the resolution assenting the vacation thereof by the Helena City Council, submit a final plat, indicating old property lines removed and establishing new ones, for the approval of the Planning Commission.

ARTICLE 4. DESIGN STANDARDS

All proposed subdivisions shall conform to any Zoning Ordinance now in effect or adopted at some future time by the City of Helena. Whenever a tract to be subdivided embraces any part of a highway, street, or road so designated on any county or regional plan, such part of such proposed public way shall be platted by the same width as indicated on such county or regional plan. The design standards of the Article shall be the minimum standards allowable for development. Standards above the minimum may be required by the Planning Commission or the City Engineer. Detailed construction specifications and engineering requirements may be obtained from the City Engineer.

The Planning Commission shall not grant any variance modification, or waiver of the requirements of the Article unless recommended by the City Engineer.

SECTION 4:01 Street Plan

- (a) All streets shall be platted along contour elevations which will result in minimum grades and greater visibility wherever practical, with consideration given to the anticipated use of the land.
- (b) The proposed street layout shall be made according to good land planning practices for the type development proposed and shall be coordinated with the street systems of the surrounding areas. All streets must provide for the continuation or appropriate projection of principal streets in surrounding areas.
- (c) In subdivisions which border on or have included within the proposed area to be subdivided any expressway, major highway or arterial street, access to lots abutting such major traffic arteries shall be provided in a manner such that the individual lots shall not have direct access to such expressway or arterial street.
- (d) The platting of any land, the purpose of which is to deny access to rights-of-way is prohibited, except as otherwise provided herein.
- (e) Street right-of-way widths shall be in accordance with recommendations of the City Engineer and shall not be less than fifty feet (50'). Subdivisions along existing or dedicated or platted streets or highways where rights-of-way are inadequate shall provide additional rights-of-way to meet these minimum standards.
- (f) All public streets shall be paved. The minimum roadway pavement shall be twenty-three feet (23'). A suitable hard surfaced permanent type of pavement shall be constructed as recommended by the City Engineer. As a minimum, that will be approved, double surface treatment type paving on a suitable base may be recommended by the City Engineer. Greater roadway widths and/or concrete curbs may be required by the Planning Commission. Curb type and size shall be constructed as recommended by the City Engineer.
- (g) Sidewalks may be required where deemed necessary for public safety by the Planning Commission.
- (h) Street alignment shall be designed to eliminate sharp curves and street jogs. No street plan will be approved with intersections which offset less than one hundred twenty-five feet (125') between center lines. Streets shall intersect as nearly at right angles as possible and in no case at an angle of less than sixty (60) degrees.
- (i) Tangents of at least one hundred feet (100') on all curves will be required unless there are local conditions that would warrant a shorter tangent.
- (j) Dead-end streets will not be approved except in cases where topography or surrounding development would warrant them or unless a dead-end street is for the purpose of connecting future development. The Planning Commission may require temporary easements for turn-around facilities.
- (k) Cul-de-sacs shall in no case exceed five hundred feet (500') in length and shall terminate in a circle with a property line radius of not less than fifty feet (50') and an outside pavement radius of not less than forty feet (40').

- (l) Curb radii of twenty feet (20') or more shall be provided at the intersections of all other streets.

SECTION 4:02 Street Grades

- (a) Grades of all streets shall comply with good engineering practice. Street grades shall not exceed fifteen percent (15%) or be less than five tenths percent (0.5%).
- (b) Grades approaching intersections shall not exceed five percent (5%) for a distance of not less than one hundred feet (100') from the centerline of said intersection.
- (c) The Planning Commission may permit some variation from these grade requirements if in its opinion such variation will not adversely affect the safety and general welfare of the public and if such variation is recommended by the City Engineer.
- (d) Streets shall be graded to a minimum line of seven feet (7') back of the curb line with a rise of not less than eight inches (8") or more than fifteen inches (15") from the flow line of the gutter.

SECTION 4:03 Street and Subdivision Names

- (a) Street names for all subdivision plats shall be subject to approval of the Planning Commission.
- (b) Subdivision names for plats shall be subject to the approval of the Planning Commission and shall not duplicate the name of any plat already recorded in Shelby County, Alabama.

SECTION 4:04 Alleys, Easements and Half Streets

- (a) Alleys will not be permitted in residential districts except as a continuation of an existing alley. Alleys shall be required in commercial or industrial districts if it is determined by the Planning Commission that conditions necessitate alleys in any such district. Where alleys are permitted, their width shall be not less than twenty feet (20').
- (b) Easements shall be not less than ten feet (10') in width except in cases of double tiered lots where a width of five feet (5') from each tier will be permitted. Where there exists a storm water ditch, creek or any other such watercourse, the easement shall be of sufficient width that such watercourse may be installed and maintained efficiently. The location of any storm water ditch, creek or watercourse shall not be changed without the approval of the Planning Commission upon recommendation of the City Engineer.

- (c) Half streets will not be permitted except in such cases where there exists a half street contiguous thereto. Half streets, however, will not be permitted as an extension or continuation of an existing half street.

SECTION 4:05 Storm Water Drainage and Grading

- (a) All subdivisions shall be provided with adequate storm sewers.
- (b) The platting of lots for building purposes will not be allowed in any flood plain area. Areas subject to periodic flooding or excessive flows or surface runoff will not be acceptable for development unless the sub-divider makes necessary provisions to eliminate such flooding.
- (c) All lots shall be graded in accordance with a grading plan approved by the City Engineer, which plan shall incorporate the following minimum requirements, except when more stringent requirements are necessary and so specified by the City Engineer.
 - (1) No lot shall shed channeled surface runoff water onto any other lot, unless such runoff is contained within an easement provided, graded and dedicated for such purpose.
 - (2) The finished slope along the bottom centerline of any lot drainage easement shall be not less than one percent (1%).
 - (3) The side slopes of any lot drainage easement shall not be greater than 4 (horizontal) to 1 (vertical).
 - (4) No street pavement shall shed surface runoff water onto any lot.
- (d) No subdivision or part thereof shall shed storm runoff water, either as surface runoff or an outfall from storm sewerage structures onto any adjoining land unless such runoff is contained within an existing drainage easement, ditch, structure or right-of-way, and provided further, that such existing drainage easement, ditch, structure or right-of-way provides outfall to an established drainage channel, as approved by the City Engineer.
 - (1) All storm water piping shall only cross under city streets, roadways or highways at 90 degree angles unless approved by the City of Helena.
 - (2) All storm water shall be controlled to prevent erosion and any other damages to this or any up or down stream properties.
 - (3) Additional storm water controls may be required to prevent high surface water runoff for the safety and welfare of the public.
 - (4) All storm water piping shall be reinforced concrete Class III pipe unless otherwise approved by the City of Helena.

Add:

(1) Post-construction runoff must mimic the pre-construction hydrology of the site. A 1.1 inch rainfall over a 24-hour period, preceded by a 72-hour antecedent dry period, is the minimum basis for this determination. The City of Helena may require a larger design storm for determining post-construction runoff and impacts in sensitive or flood-prone areas.

(2) Landowners and developers should consider the use of low impact development and/or green infrastructure, where feasible.

- (5) All storm water systems such as joints, lift holes and penetrations shall be sealed in a method approved by the City of Helena.

SECTION 4:06 **Platting Requirements**

(a) **Blocks**

- (1) Blocks shall be laid out with special attention given to the type of use contemplated.
- (2) Blocks shall be a minimum of five hundred feet (500') in length.
- (3) Width of blocks shall be not less than three hundred fifty feet (350').
- (4) Blocks with lots have double frontage on streets shall not be permitted.
- (5) The foregoing dimensions may be adjusted by the Planning Commission where the type of use or nature of the topography requires such modification.

(b) **Lots**

- (1) Lot sizes and configurations shall be made with due regard to topographic conditions, contemplated use, and the surrounding area. A re-subdivision or a subdivision in an area already subdivided, shall be compatible in character with the surrounding neighborhood.
- (2) Where easements for public utilities, storm or sanitary sewers are contemplated, the lot lines shall be located in such manner as to facilitate the construction of such improvements and the maintenance thereof.
- (3) Lot areas and widths shall meet or exceed minimum zoning and health requirements in the area in which the property is located, but the Planning Commission may impose greater requirements if it finds that a proposed subdivision, though meeting minimum zoning requirements, would tend to depreciate the value surrounding or adjacent properties, or would impose undue burden on the City in furnishing public services to the area.
- (4) Corner lots shall provide at least the same minimum setback on the side as required on the front by the Zoning Ordinance.
- (5) Lot lines shall be substantially at right angles to the streets except on curves where they shall be radial. Where the distance between rear lot corners on double tiered lots would be less than ten feet (10') the radial lines shall be deviated so that the distance between rear lot corners will be a minimum of ten feet (10').

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SECTION 4:07 **Utilities**

- (a) All subdivisions shall be provided with sanitary sewage systems as approved by the City Engineer and the State and/or County Health Department.
- (b) All subdivisions shall be provided with water distribution systems as approved by the City Engineer and the State and/or County Health Department. Individual wells will be permissible unless conditions are such that their use would result in a hazard to health.
- (c) The number, location and spacing of fire hydrants shall be in accordance with the recommendations of the City Engineer.
- (d) Utility appurtenances where required, such as transformer installations, sewage pumping stations, water tanks, pressure regulating stations, and other similar facilities shall be located and installed as approved by the City Engineer.
- (e) Water, gas, sanitary mains and appurtenances, if applicable, will be constructed prior to installation of paving with all mains being extended for service to all lots so that no subsequent cutting of pavement will be required to permit service to all lots.

ARTICLE 5. REQUIRED IMPROVEMENTS: BOND

SECTION 5:01 **Improvements**

Prior to the approval of the final plat, the sub-divider shall have installed or constructed the required improvements or posted bond as provided for in this Article.

SECTION 5:02 **Bond and Surety: Amount and Release**

- (a) In the event the Planning Commission may consider that the requirements set out in Article 5, Section 5:01, need not immediately be met by the subdivider, the requirements may be modified by the execution of an agreement with the sub-divider that such improvements and/or repairs shall be installed and constructed within a reasonable and specified length of time. Bond approved by City Attorney shall be required to ensure the fulfillment of such agreement and shall be Letter of Credit automatically renew from year to year unless written advance notice is given to the City at least ninety (90) days prior to the date of expiration.
- (b) Such bond shall not exceed two hundred percent (200%) of the estimated cost of the improvements and/or repairs. The surety shall not be released from said bond except by a release in writing from the Helena Planning and Zoning Commission.

SECTION 5:03 **Maintenance Bond**

- (a) A one year maintenance agreement for all improvements installed in rights-of-way and drainage easements will be required of the subdivider upon final acceptance of improvements by Helena Planning Commission under Section 5:02 (b) above. Bond will also be required when the City Engineer may have reasonable doubt concerning the stability or proper construction of any improvement included within the above limits. Amount of bond will be determined by the City Engineer and bond will be as approved by City Attorney covered under Section 5:02 (a) above.

ARTICLE 6. VARIANCES

SECTION 6:01 **Modifications, Variances and Waivers**

If it be determined that strict compliance with these regulations would result in extraordinary hardship to the sub-divider due to unusual topography or conditions beyond the control of the sub-divider, then the Planning Commission, except as provided in Article 6, may modify, vary or waive such improvements provided that such modification, variance or waiver will not tend to injure or place the public health, safety or welfare in jeopardy, nor nullify the stated or implied intent or purpose of those regulations, and provided further that such modification, variance or waiver and the reason therefore shall be entered upon the minutes of the Planning Commission.

SECTION 6:02 **Conditions of and Applications for Variances**

- (a) In granting modifications, variances or waivers, the Planning Commission may attach such other reasonable conditions as will, in its judgement, justify such modifications, variances or waivers and still maintain substantially the objectives of these regulations.
- (b) Each and every modification, variance or waiver of these regulations sought by a sub-divider shall be specially applied for, in the numerical order of these regulations, in writing by the sub-divider and submitted to the Planning Commission which shall forward a copy of said application to the City Engineer immediately following the passage of the tenth day (10th) prior to a regular scheduled meeting of the Planning Commission. Any condition shown on the preliminary or final plat (or on engineering plans or data called for by Article 2, Section 2:05 which would require a modification, variance or waiver) shall constitute a ground for disapproval of the preliminary or final plat unless such special application for modification, variance or waiver is made.

City of Helena

Supplement to Section 4.05 (Storm Water Drainage and Grading) of the Subdivision Regulations - Storm Drainage Requirements

Revised June 21, 2017 – Pending Approval

1. Two criteria shall be checked:
 - a. The post-development flows must be equal or less than the pre-development flows at the outfall point of the development.
 - b. No more than a 1% increase in flows will be allowed at the outfall point or at a point downstream where the site area is approximately 10% of the drainage basin area (i.e. 10% downstream analysis)
 - i. The 10% analysis point shall be the point downstream where the site drainage area is approximately 10% of the overall drainage basin area. If the outfall point of the development is approximately 10% or less of the overall drainage basin area, then the outfall point of the development will be the 10% analysis point.
 - ii. Identify all affected existing structures between lower limit of site and 10% percent analysis point and determine the impacts to these existing structures;
 - iii. Pre-development vs. post-development analysis;
 - iv. Describe and show on a topographic map all culverts, obstructions, existing and potential erosion problems, existing improvements, and any known existing drainage complaints between the downstream property line and the 10% analysis point;
 - v. Pre-development vs. post-development hydrograph comparisons for the one-, two-, five-, ten-, 25- 50- and 100-year storms for 10% analysis point
 - vi. A detailed written description of the first 500 feet downstream of the site; at least one photograph looking downstream with some object included in the photograph for scale shall be included;
 - vii. If the 10% downstream analysis indicates that adverse impacts are expected, provide storm water detention in basin(s) for the one-, two-, five-, ten-, 25-, 50- and 100-year storm event. A 1-percent increase may be allowable if no existing adverse conditions exist.
2. Detention pond design criteria
 - a. The base design storm for detention pond design shall be the 25-year, 24-hour storm. The two-, five-, ten-, 50- and 100-year storm events shall also be checked to determine if there are any adverse impacts for these storms.
 - b. All ponds must have at least 12 inches of freeboard based on the 100-year storm.
 - c. The emergency spillway shall be designed to convey the 100-year storm. The overflow spillway shall be sodded, paved or ripped as required to prevent erosion. In lieu of a spillway, the overflow, designed to convey the 100-year storm, may incorporated into the outlet control structure.
 - d. All designs should consider the ultimate saturation of the development and tributary.
 - e. A low flow ditch/swale with a minimum slope of 1% for grass or 0.5% if paved shall be included in the bottom of the pond to the outfall structure.
 - f. The outlet control structure shall have a trash rack(s) with a maximum opening of four inches.

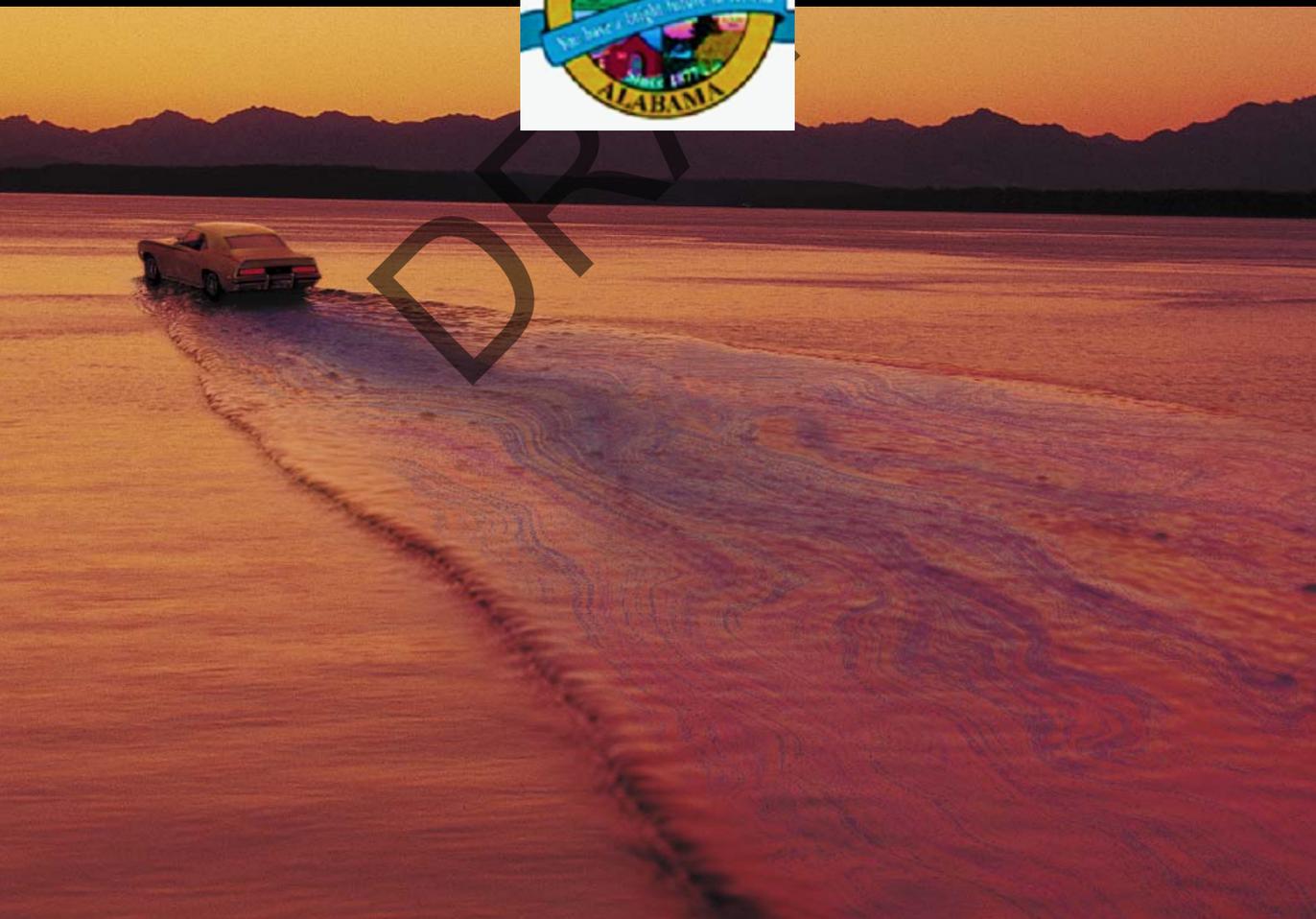
- g. If the height of the sides of the pond/dam are above 10', additional stability analysis may be required.
 - h. The City may require that ponds be enclosed with a minimum five-foot-tall black, vinyl coated chain link fence with at least one four-foot wide access gate and one 10' wide gate for maintenance vehicle access. Factors in determining the need for fencing may include the size of the pond, the depth of the water in the pond, the location of the pond on the site, type of development (residential, commercial, institutional, etc.). In areas highly visible from public right-of-way, the City may require that the pond be screened from view with landscape planting. The developer or engineer should coordinate with the City to determine the need for fencing or landscaping around detention ponds.
 - i. The design engineer shall submit a no-adverse impacts letter.
 - j. Any requests for deviations from these detention pond requirements shall be filed with the City Building Official in the form of a variance request and shall be accompanied by technical engineering data concerning the unusual conditions and proposed deviations.
3. Analyze downstream watercourses and receiving conveyances to determine 25-year flow channel velocities and stability of the channel bottom and sides. If the stability of the existing channel bottom and/or sides are not stable, detention, channel improvements/protection or other countermeasures may be required. Provide calculations with cross-section, depth of flow and velocity in channel.

DRAFT

SWMPP Appendix D – Public Outreach

DRAFT

**WHEN YOUR CAR'S LEAKING OIL ON
THE STREET, REMEMBER IT'S NOT JUST
LEAKING OIL ON THE STREET.**



Leaking oil goes from car to street. And is washed from the street into the storm drain and into our lakes, streams and Puget Sound. Now imagine the number of cars in the area and you can imagine the amount of oil that finds its way from leaky gaskets into our water. So please, fix oil leaks.

A cooperative venture between the Puget Sound Action Team, Department of Ecology, King County and the cities of Bellevue, Seattle and Tacoma.

CLEAN WATER IS IMPORTANT TO ALL OF US

It's up to all of us to make it happen. In recent years sources of water pollution like industrial wastes from factories have been greatly reduced. Now, more than 60 percent of water pollution comes from things like cars leaking oil, fertilizers from farms and gardens, and failing septic tanks. All these sources add up to a big pollution problem. But each of us can do small things to help clean up our water too—and that adds up to a pollution solution!

Why do we need clean water?

Having clean water is of primary importance for our health and economy. Clean water provides recreation, commercial opportunities, fish habitat, drinking water and adds beauty to our landscape. All of us benefit from clean water—and all of us have a role in getting and keeping our lakes, rivers, marine and ground waters clean.

What's the problem with motor oil?

Oil does not dissolve in water. It lasts a long time and sticks to everything from beach sand to bird feathers. Oil and other petroleum products are toxic to people, wildlife and plants. One pint of oil can make a slick larger than a football field. Oil that leaks from our cars onto roads and driveways is washed into storm drains, and then usually flows directly to a lake or stream. Used motor oil is the largest single source of oil pollution in our lakes, streams and rivers. Americans spill 180 million gallons of used oil each year into our waters. This is 16 times the amount spilled by the Exxon Valdez in Alaska.

This information is brought to you by the Water Quality Consortium, a group of public agencies working together to reduce nonpoint water pollution through education.

Partially funded by a Centennial Clean Water Fund grant from Washington State Department of Ecology.

CLEAN WATER TIP:

How can you use and change your motor oil and help keep our waters clean?

Stop drips. Check for oil leaks regularly and fix them promptly. Keep your car tuned to reduce oil use.

Use ground cloths or drip pans beneath your vehicle if you have leaks or are doing engine work. Clean up spills immediately. Collect all used oil in containers with tight fitting lids. Do not mix different engine fluids.

Never dispose of oil or other engine fluids down the storm drain, on the ground or into a ditch.

Recycle used motor oil. Many auto supply stores and gas stations will accept used oil.

Buy recycled (re-refined) motor oil to use in your car.

To find out more about where you can take used oil for recycling, call the Department of Ecology's 1-800-RECYCLE

[Place your logo, address and phone number here]

**WHEN YOU'RE WASHING YOUR CAR IN
THE DRIVEWAY, REMEMBER YOU'RE
NOT JUST WASHING YOUR CAR
IN THE DRIVEWAY.**



All the soap, scum, and oily grit runs along the curb. Then into the storm drain and directly into our lakes, streams and Puget Sound. And that causes pollution, which is unhealthy for fish. So how do you avoid this whole mess? Easy. Wash your car on grass or gravel instead of the street. Or better yet, take it to a car wash where the water gets treated and recycled.

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What's the problem with car washing?

There's no problem with washing your car. It's just how and where you do it. Most soap contains phosphates and other chemicals that harm fish and water quality. The soap, together with the dirt and oil washed from your car, flows into nearby storm drains which run directly into lakes, rivers or marine waters. The phosphates from the soap can cause excess algae to grow. Algae look bad, smell bad, and harm water quality. As algae decay, the process uses up oxygen in the water that fish need.

This information is brought to you by the Water Quality Consortium, a group of public agencies working together to reduce nonpoint water pollution through education.

Partially funded by a Centennial Clean Water Fund grant from Washington State Department of Ecology.

CLEAN WATER TIP:

How can you wash your car and help keep our waters clean?

Use soap sparingly. Use a hose nozzle with a trigger to save water.

Pour your bucket of soapy water down the sink when you're done, not in the street. Or wash your car on a grassy area so the ground can filter the water naturally.

Best of all, take your car to a commercial car wash, especially if you plan to clean the engine or the bottom of your car. Most car washes re-use wash water several times before sending it to the sewer system for treatment.

To find out more about the impacts from washing your vehicle and what you can do to prevent water pollution, call the number in your community listed below.

[Place your logo, address and phone number here]

WHEN YOU'RE FERTILIZING THE LAWN,

REMEMBER YOU'RE NOT JUST

FERTILIZING THE LAWN.



You fertilize the lawn. Then it rains. The rain washes the fertilizer along the curb, into the storm drain, and directly into our lakes, streams and Puget Sound. This causes algae to grow, which uses up oxygen that fish need to survive. So if you fertilize, please follow directions and use sparingly.

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What's the problem with fertilizer?

Fertilizer isn't a problem if it's used carefully. If you use too much fertilizer or apply it at the wrong time, it can easily wash off your lawn or garden into storm drains and then flow untreated into lakes or streams. Just like in your garden, fertilizer in lakes and streams makes plants grow. In water bodies, extra fertilizer can mean extra algae and aquatic plant growth. Too much algae harms water quality and makes boating, fishing and swimming unpleasant. As algae decay, they use up oxygen in the water that fish and other wildlife need.

This information is brought to you by the Water Quality Consortium, a group of public agencies working together to reduce nonpoint water pollution through education.

Partially funded by a Centennial Clean Water Fund grant from Washington State Department of Ecology.

CLEAN WATER TIP:

How can you fertilize and help keep our waters clean?

Use fertilizers sparingly. Many plants do not need as much fertilizer or need it as often as you might think.

Don't fertilize before a rain storm.

Consider using organic fertilizers; they release nutrients more slowly.

Use commercially available compost or make your own using garden waste. Mixing compost with your soil means your plants will need less chemical fertilizer and puts your waste to good use. Commercial compost and soil amendments may be available from your solid waste or wastewater utility as well as your local garden store.

For more information on fertilizing alternatives and composting, call your County Extension's Master Gardeners program or the number in your community listed below.

[Place your logo, address and phone number here]

WHEN YOUR PET GOES ON THE LAWN,

REMEMBER IT DOESN'T JUST

GO ON THE LAWN.



When our pets leave those little surprises, rain washes all that pet waste and bacteria into our storm drains. And then pollutes our waterways. So what to do? Simple. Dispose of it properly (preferably in the toilet). Then that little surprise gets treated like it should.

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What's the problem with pet waste?

It's a health risk to pets and people, especially children. It's a nuisance in our neighborhoods. Pet waste is full of bacteria that can make people sick. If it's washed into the storm drain and ends up in a lake, stream or marine water, the bacteria ends up in shellfish. People who eat those shellfish can get very sick. The waste produced by Seattle's dogs and cats is about what a city the size of Renton or Kennewick—about 50,000 people—would produce. Unless people take care of it, the waste enters our water with no treatment.

This information is brought to you by the Water Quality Consortium, a group of public agencies working together to reduce nonpoint water pollution through education.

Partially funded by a Centennial Clean Water Fund grant from Washington State Department of Ecology.

CLEAN WATER TIP:

How can you get rid of pet waste and help keep our waters clean?

Here are some options.

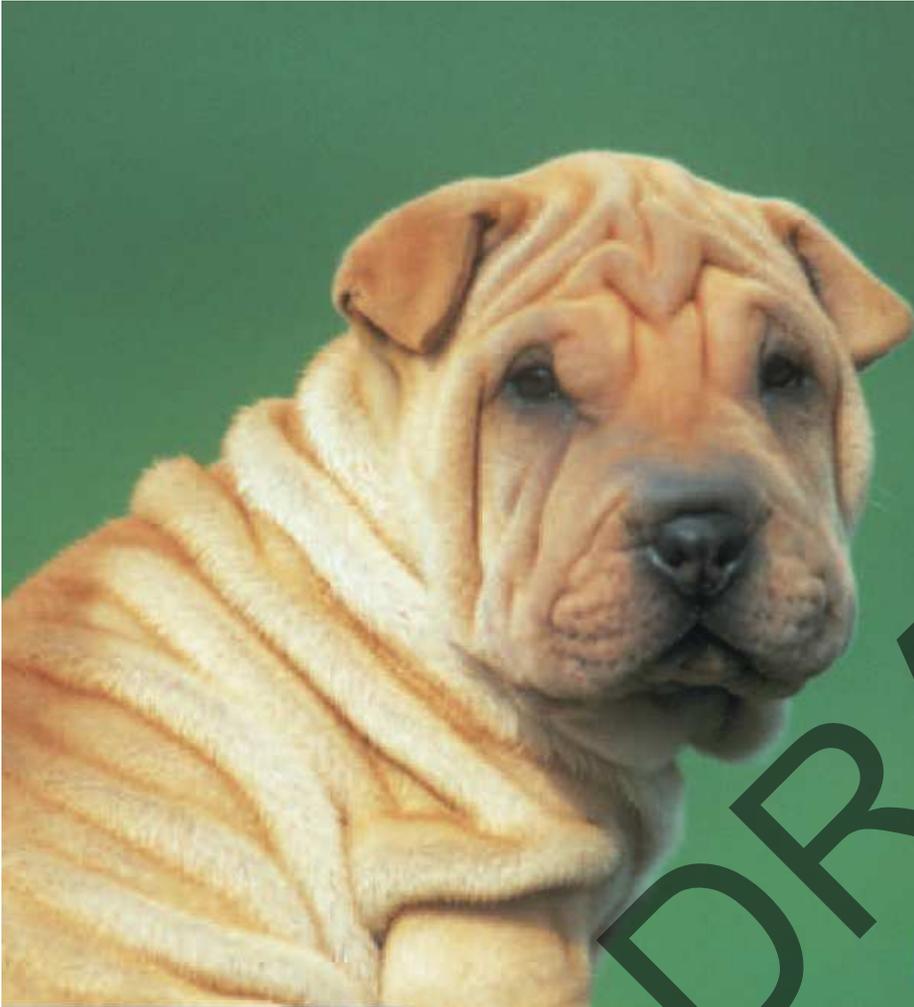
Scoop it up and flush it down the toilet. That's best because then your community sewage treatment plant or your septic system treats the pet waste.

Seal the waste in a plastic bag and throw it in the garbage. (This is legal in most areas, but check local laws.)

Bury small quantities in your yard where it can decompose slowly. Dig a hole one foot deep. Put three to four inches of waste at the bottom of the hole. Cover the waste with at least eight inches of soil. Bury the waste in several different locations in your yard and keep it away from vegetable gardens.

To find out more about the problems of pet waste and what you can do to prevent water pollution, call the number of your local community listed below.

[Place your logo, address and phone number here]



**IF YOU THINK
PICKING UP
DOG POOP IS
UNPLEASANT,
TRY SWIMMING IN IT.**

**Pet Waste Pollutes Our Rivers,
Lakes & Streams**



WWW.CITYOFHELENA.ORG

**LAWN
TODAY**



HERE TOMORROW

Many things you put on your yard end up in the water near you.

*Learn more about storm water issues
affecting our City at
www.cityofhelena.org*



STORMWATER THE BOOK



WHERE DOES ALL THE
WATER GO?



Whenever it rains or snows, water runs off the land and into our storm drain system. The storm drain system is made up of gutters, storm drains (the holes in the curb) and pipes. The water that runs off the land is called **stormwater**. The storm drain system carries the stormwater to local waterways. The water that runs off into the storm drain system never passes through a water treatment plant, so anything the stormwater picks up, or is placed in it along the way, will be carried **UNTREATED** to the nearest waterway.

WHO LIVES IN A WATERSHED?

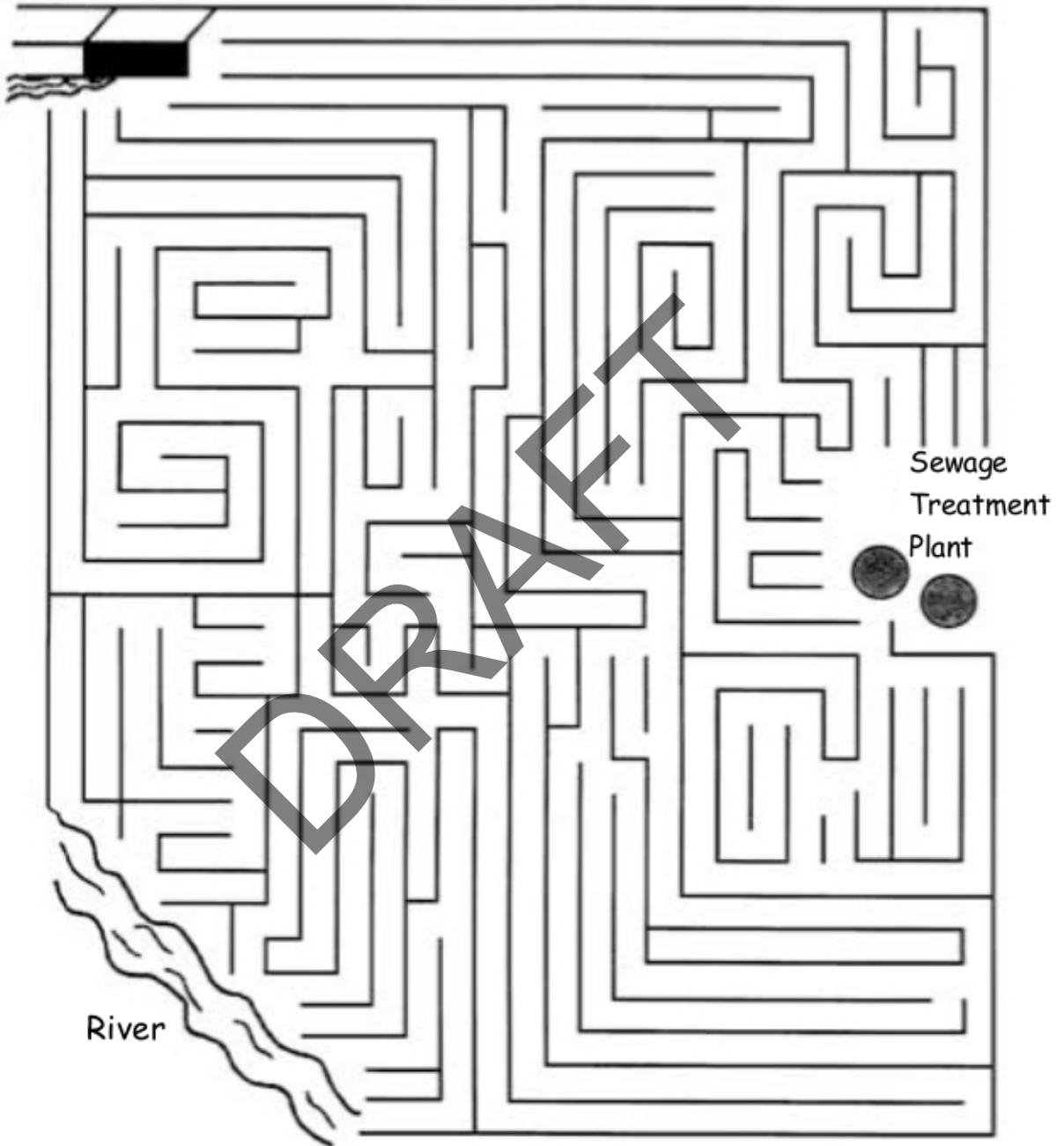
A watershed is the land that water flows across or under on its way to a stream, river, lake, or ocean. Water runs to the lowest point in the watershed.

At the bottom of the page, list the animals in this picture that live in a watershed.



THE A-MAZING STORMWATER STORY

Everyone knows that water flows. But who knows where the water goes? Follow the gutter water through the storm drain system to find out.



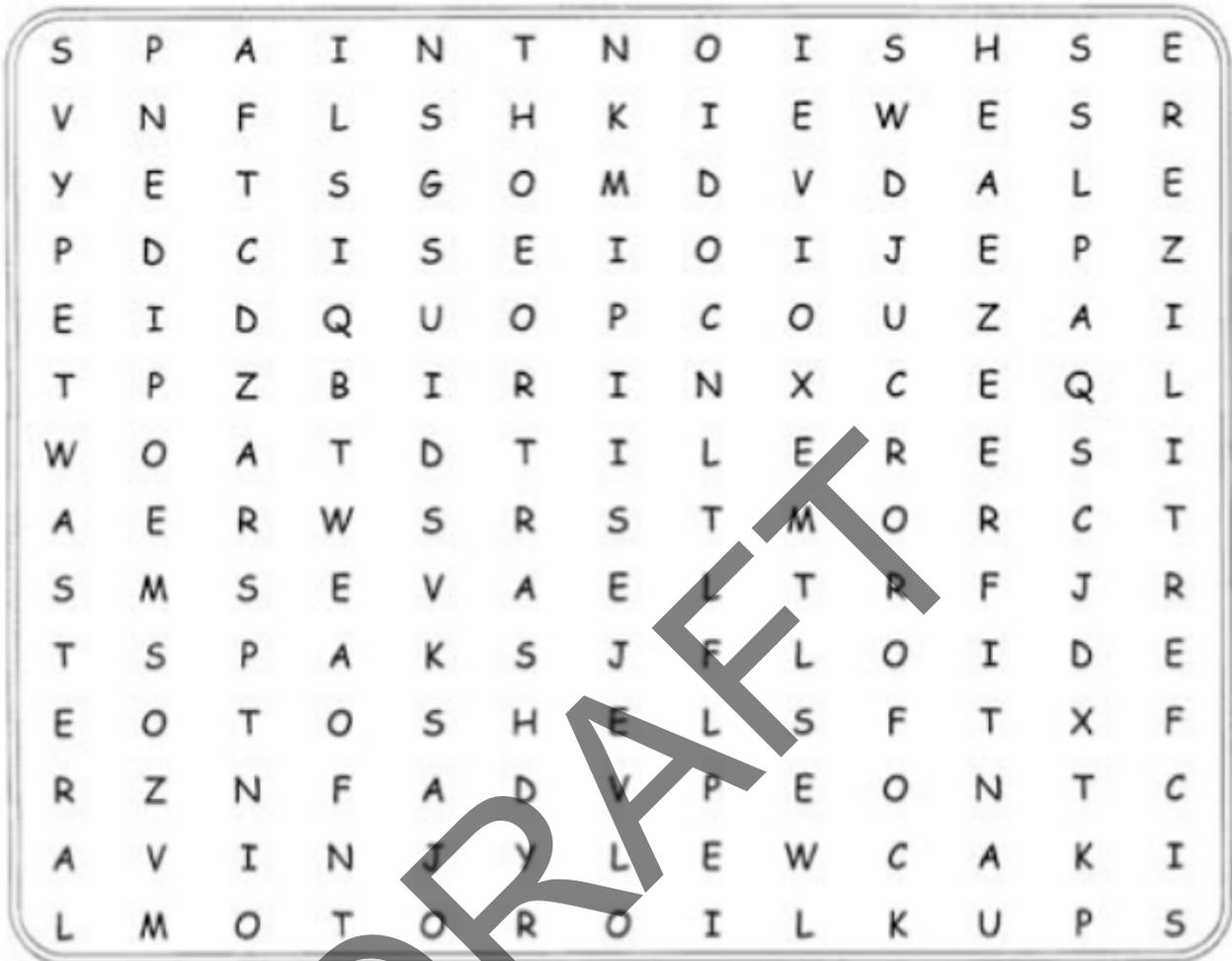
Does gutter water go to the sewage treatment plant or to the river? _____

STORMWATER POLLUTION

The untreated water in the storm drain system can carry pollutants to nearby waterways. Things that are put on the ground can be washed into our storm drains by rain or overwatering our yards. When carried by stormwater, pollutants, such as motor oil and antifreeze from cars, fertilizers and pesticides on our lawns and gardens, pet waste, paint, trash, and soap can end up in the waterways, making the animals that live there very sick. Even things like soil and leaves can be pollutants -- they clog storm drains and choke up our waterways. Sometimes, people who don't know that stormwater isn't treated dump or deliberately wash pollutants directly into the storm drains. Of course, you, Croaker and Stormy know where all these pollutants go.



FIND THE POLLUTANTS



Stormy has found many pollutants in the stream in which he lives. All of these pollutants were carried to the stream in the stormwater and are mentioned on page 4. Can you find the stormwater pollutants in the box above? Some words may be backwards. When you find them, write the words in the space provided.

- | | |
|----------|-----------|
| 1) _____ | 6) _____ |
| 2) _____ | 7) _____ |
| 3) _____ | 8) _____ |
| 4) _____ | 9) _____ |
| 5) _____ | 10) _____ |

FROM YOUR HOME TO OURS



Pollution in our neighborhood can travel to local streams and rivers through the storm drain system. Below is a list of steps in this polluting process, but the steps are out of order. Write out the steps on the lines provided in the order that they would normally occur, with number one being the first step and number five being the last step.



The storm drain carries the polluted stormwater to the stream.



1. _____

Paint and other pollutants are left outside.



2. _____

Fish and other animals that live in the stream get sick and might die.



3. _____

Rain water washes over the pollutants and carries them into the street.



4. _____

Polluted rain water flows down the street and into the storm drain.



5. _____

DRAFT

WATER POLLUTION AFFECTS...

Unscramble the words below to find out who is harmed by water pollution.



HIFS _____

SRBDI _____

LEEPOP _____

USKDC _____

GOFRS _____

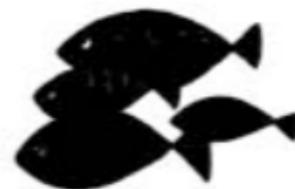
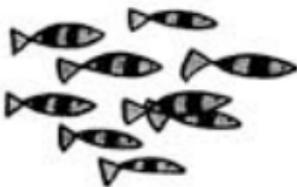
LMNAISA _____

OYU _____

NLTAPS _____

GUSB _____

YREVNOEE _____



HELPING TO KEEP GUTTERS CLEAN

There are lots of ways you can help prevent stormwater pollution and keep your water (and our home!) clean. You can help by:

- 1) placing litter in trash cans and recycling materials, such as aluminum, paper, and plastic bottles;
- 2) picking up pet waste and putting it in the trash;
- 3) washing the family car in an area that doesn't run off to a storm drain, such as your lawn or the car wash;
- 4) watering the lawn for shorter periods of time so that water doesn't run off; and;
- 5) rake or sweep up grass, leaves and twigs from your yard, rather than hosing it away or using a leaf blower.

The plant material you collect can be used to make compost.

You can get your parents to help too! Tell them that things like paint, antifreeze and chemical cleaners need to be taken to a household hazardous waste collection facility. Also, ask them to repair any leaks their cars have and to recycle used motor oil and filters.



LEND A HELPING HAND

To help prevent stormwater pollution, Stormy puts recyclables in the recycle bin and litter in the trash can.

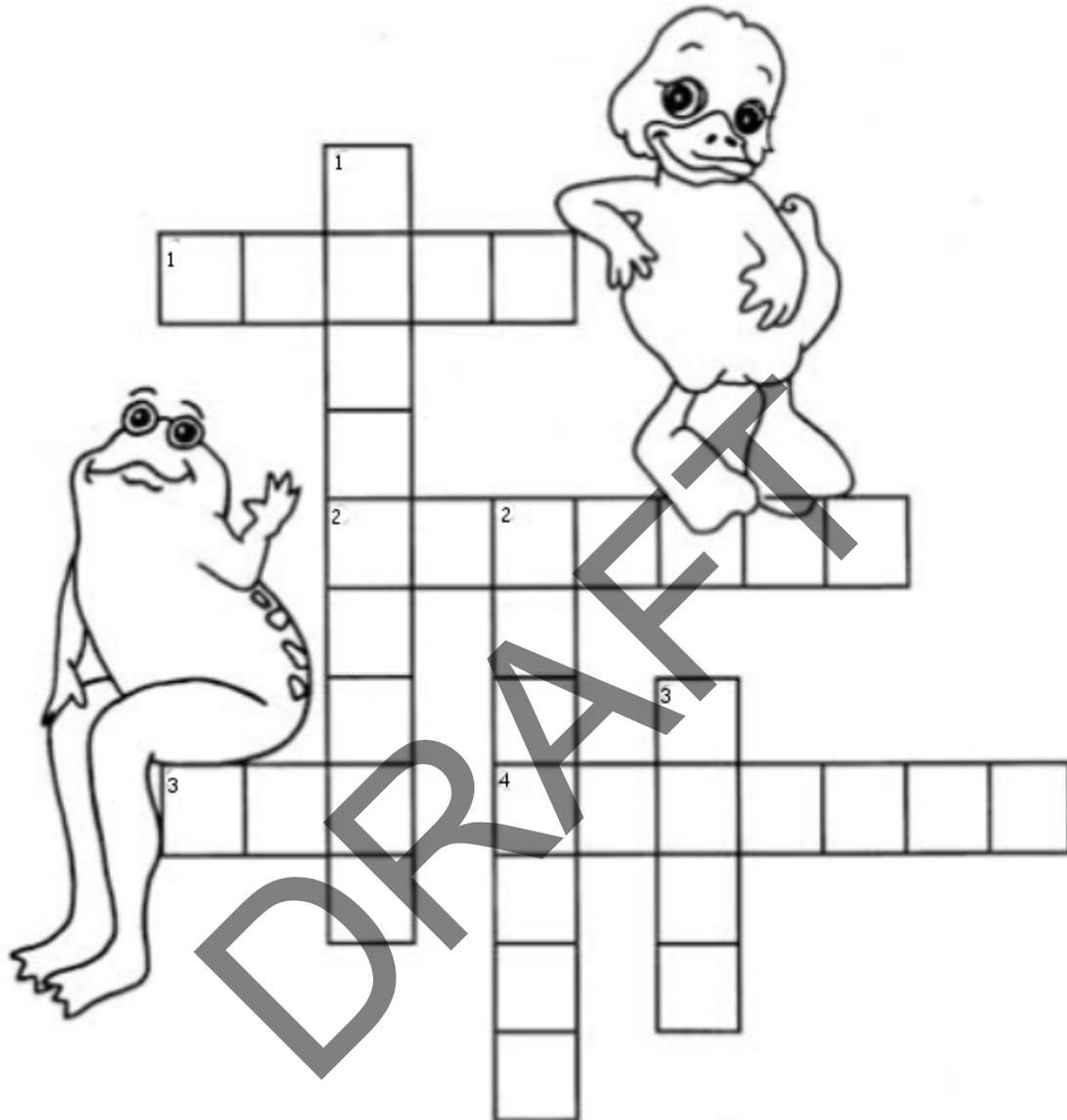
Write the appropriate words from the recycle bin in the blanks to find out what else you can do to prevent pollution.



1. _____ the driveway instead of hosing debris into the street.
2. _____ pet waste and put it in the trash rather than leave it lying on the ground.
3. _____ run off, water the lawn for shorter periods of time.
4. Ask your parents to _____ used motor oil.
5. _____ the car on the lawn or at the car wash, so soap, dirt and oil don't end up in the storm drain.
6. _____ by composting yard debris, such as grass clippings, leaves and twigs, and use the compost in your garden.
7. _____ Your parents that left over paint and antifreeze need to be taken to a house-hold hazardous waste collection facility.

CLEAN WATER CROSSWORD

Decide what words belong in the boxes by reading the clues.



ACROSS

1. The place litter and pet waste belongs.
2. What you should do with used motor oil and filters.
3. Who can help prevent stormwater pollution?
4. You can recycle _____ bottles.

DOWN

1. Left over paint, antifreeze and household cleaners are _____ wastes, and should be taken to a collection facility.
2. You can make it out of yard clippings.
3. Where, at home, you can wash the car without having soap, dirt and oil flowing to the storm drain.

**WITH YOUR HELP, WE CAN
KEEP GUTTERS CLEAN
FOR THOSE
DOWNSTREAM!**

CROAK!
For more
information on stormwater,
go to
ms4web.com/chambers

For the answer
to the activities
look below.



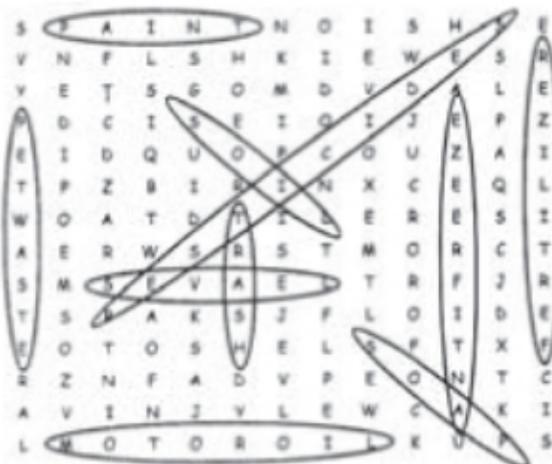
Page 2

Everyone lives in a watershed, so you should have listed all of the animals (people included!).

Page 3

The stormwater goes straight to the river, it does not go to the water treatment plant to be cleaned.

Page 5



- PAINT
- PETWASTE
- PESTICIDES
- SOIL
- TRASH
- LEAVES
- MOTOROIL
- SOAP
- ANTIFREEZE
- FERTILIZER

Page 6

1) paint and other pollutants are left outside. 2) Rain water washes over the pollutants and carries them in to the street. 3) Polluted rain water flows down the street and into the storm drain. 4) The storm drain carries the polluted stormwater to the stream. 5) Fish and other animals that live in the stream get sick and might die.

Page 7

Fish, Birds, People, Ducks, Frogs, Animals, You, Plants, Bugs, Everyone

Page 9

1) Sweep, 2) Pick up, 3) Prevent, 4) Recycle, 5) Wash, 6) Reduce Waste, 7) Tell

Page 10

Across: 1) Trash, 2) Recycle, 3) You, 4) Plastic

Down: 1) Hazardous, 2) Compost, 3) Lawn

Stormwater and the Construction Industry



Protect Natural Features



Bad



Good

- Minimize clearing.
- Minimize the amount of exposed soil.
- Identify and protect areas where existing vegetation, such as trees, will not be disturbed by construction activity.
- Protect streams, stream buffers, wild woodlands, wetlands, or other sensitive areas from any disturbance or construction activity by fencing or otherwise clearly marking these areas.

Construction Phasing



Bad



Good

- Sequence construction activities so that the soil is not exposed for long periods of time.
- Schedule or limit grading to small areas.
- Install key sediment control practices before site grading begins.
- Schedule site stabilization activities, such as landscaping, to be completed immediately after the land has been graded to its final contour.

Vegetative Buffers



Bad



Good

- Protect and install vegetative buffers along waterbodies to slow and filter stormwater runoff.
- Maintain buffers by mowing or replanting periodically to ensure their effectiveness.



Silt Fencing



Bad



Good

- Inspect and maintain silt fences after each rainstorm.
- Make sure the bottom of the silt fence is buried in the ground.
- Securely attach the material to the stakes.
- Don't place silt fences in the middle of a waterway or use them as a check dam.
- Make sure stormwater is not flowing around the silt fence.

Maintain your BMPs!

www.epa.gov/npdes/menuofbmps

Site Stabilization



Bad



Good

- Vegetate, mulch, or otherwise stabilize all exposed areas as soon as land alterations have been completed.

Construction Entrances



Bad



Good

- Remove mud and dirt from the tires of construction vehicles before they enter a paved roadway.
- Properly size entrance BMPs for all anticipated vehicles.
- Make sure that the construction entrance does not become buried in soil.

Slopes



Bad



Good

- Rough grade or terrace slopes.
- Break up long slopes with sediment barriers, or under drain, or divert stormwater away from slopes.

Dirt Stockpiles



Bad



Good

- Cover or seed all dirt stockpiles.

Storm Drain Inlet Protection



Bad



Good

- Use rock or other appropriate material to cover the storm drain inlet to filter out trash and debris.
- Make sure the rock size is appropriate (usually 1 to 2 inches in diameter).
- If you use inlet filters, maintain them regularly.



Stormwater and the Construction Industry

Planning and Implementing Erosion and Sediment Control Practices

The construction industry is a critical participant in the nation's efforts to protect streams, rivers, lakes, wetlands, and oceans. Through the use of best management practices (BMPs), construction site operators are the key defense against erosion and sedimentation.

As stormwater flows over a construction site, it picks up pollutants like sediment, debris, and chemicals. High volumes of stormwater can also cause stream bank erosion, and destroy downstream aquatic habitat. Preventing soil erosion and sedimentation is an important responsibility at all construction sites.

In addition to the environmental impact, uncontrolled erosion can have a significant financial impact on a construction project. It costs money and time to repair gullies, replace vegetation, clean sediment-clogged storm drains, replace poorly installed BMPs, and mitigate damage to other people's property or to natural resources.

Best Management Practice (BMP)

A BMP is a method used to prevent or control stormwater runoff and the discharge of pollutants, including sediment, into local waterbodies. Silt fences, inlet protection, and site-stabilization techniques are typical BMPs on a construction site.

Operator

An operator is someone who has control over and the ability to modify construction plans and specifications (e.g. owner, general contractor)

or

Someone who has control over the day-to-day operations at a site (e.g., owner, general contractor) that are necessary to ensure compliance with the permit requirements. It is the responsibility of a construction site owner or operator to contain stormwater runoff and prevent erosion during all stages of a project.

There may be more than one person at a site who meets these definitions and must apply for permit coverage. (States may have different definitions of the term "operator.")

So what's being done about polluted runoff?

The Clean Water Act includes the National Pollutant Discharge Elimination System (NPDES) permitting program. As of January 2003, 44 states and territories are authorized to issue NPDES stormwater permits. If your state isn't authorized to operate the NPDES stormwater permit program, EPA issues the permits. Permits vary from state to state, so contact your state or EPA for specific information. Your permitting authority has specific information on your state's NPDES stormwater permit program. In general, construction permits require construction operators to do all of the following:

- Develop and implement a stormwater pollution prevention plan
- Submit a permit application or notice of intent (NOI)
- Comply with the permit, including maintaining BMPs and inspecting the site

Under the NPDES program, construction activities that disturb 1 or more acres are required to obtain stormwater permit coverage. States have different names for the plans that construction operators must develop, such as

- Stormwater pollution prevention plan
- Erosion and sediment control plan
- Erosion control and stormwater management plan
- Stormwater management plan
- Water pollution control plan
- Pollution prevention plan

This document uses the term "Plan."

I think I need a permit... Where do I start?

All land-disturbing activities, including clearing, grading, and excavation, that disturb **1 or more acres** are required to be covered under a state or EPA-issued NPDES construction stormwater permit **prior to land disturbance**. Permit requirements vary by state. Begin by researching the specific requirements in your state. You might already be subject to local erosion and sediment control requirements, but that doesn't release you from the requirements of the NPDES program at the state or EPA level. Although you must comply with both sets of requirements, in most cases they have been designed to be complementary. Contact your permitting authority to find out exactly what you need to do. A good place to start your search is the Construction Industry Compliance Assistance web site at <http://www.envcap.org/cica>.

The NPDES permit requirements include small construction activities that are part of a larger common plan of development or sale, such as a single lot within a larger subdivision. For developments with multiple operators, all operators must have permit coverage for their individual parts of the larger development, no matter how large or small each operation happens to be. When there are multiple operators at one site, they're encouraged to develop and share one comprehensive Plan and obtain permit coverage as co-permittees.

The **owner or operator** of the construction site is responsible for complying with the requirements of the permit. Responsibilities include developing a Plan, obtaining permit coverage, implementing BMPs, and stabilizing the site at the end of the construction activity.

Construction sites that discharge unpermitted stormwater are in violation of the Clean Water Act and may be subject to fines of up to \$27,500 a day per violation.

Determine your eligibility

All construction activity that disturbs 1 or more acres of land, as well as activity that disturbs less than 1 acre but is part of a larger common plan of development, must obtain permit coverage.

Read and understand your stormwater permit requirements

Get a copy of the permit for construction activities and a permit application (or notice of intent form) from your state or EPA permitting authority.

Develop a Plan

Most states do not require you to submit your Plan. However, you do need to keep the Plan on site. If that's impractical, you may post a notice that tells where the Plan is kept so it can be accessed by the permitting authority and other interested parties.

You'll need to post a copy of your completed application on site. Put it in a place where the public can see it so they'll know your site is covered by an NPDES permit!

Apply for permit coverage

Once you understand your permit requirements and have developed a Plan, you can submit a stormwater permit application (or notice of intent) to your permitting authority. This must be done before beginning any land disturbance on the site. Some states require a few days of lead time, so check with your permitting authority. Once you've submitted the application, you must satisfy the conditions of the permit.

Implement the Plan

Be prepared to implement the BMPs in your Plan before construction begins. Ensure that BMPs are properly maintained, and upgrade and repair them as necessary.

Developing and Implementing a Plan

You must have a Plan that includes erosion and sediment control and pollution prevention BMPs. These Plans require

- Advance planning and training to ensure proper implementation of the BMPs
- Erosion and sediment control BMPs in place until the area is permanently stabilized
- Pollution prevention BMPs to keep the construction site "clean"
- Regular inspection of the construction site to ensure proper installation and maintenance of BMPs

Fortunately, the practices and measures that must be included in your Plan are already part of the standard operating procedures at many construction sites.

Six steps are associated with developing and implementing a stormwater Plan. There's a wealth of information available on developing pollution prevention plans. Please contact your permitting authority for help in finding additional guidance materials, or visit www.epa.gov/npdes/stormwater. A sample construction plan is available at www.epa.gov/npdes/pubs/sample_swppp.pdf.

1. Site Evaluation and Design Development

- Collect site information
- Develop site plan design
- Prepare pollution prevention site map

The first step in preparing a Plan is to define the characteristics of the site and the type of construction that will occur. This involves collecting site information, identifying natural features that should be protected, developing a site plan design, describing the nature of the construction activity, and preparing a pollution prevention site map.

2. Assessment

- Measure the site area
- Determine the drainage areas
- Calculate the runoff coefficient

The next step is assessing the impact the project will have on stormwater runoff. Determine the drainage areas and estimate the runoff amounts and velocities. For more information on calculating the runoff coefficient, go to www.epa.gov/npdes/pubs/chap02_conguide.pdf, page 11.

3. Control Selection and Plan Design

- Review and incorporate state or local requirements
- Select erosion and sediment controls
- Select other controls
- Select stormwater management controls
- Indicate the location of controls on the site map
- Prepare an inspection and maintenance plan
- Coordinate controls with construction activity
- Prepare sequence of major activities

In the third step you'll actually document your procedures to prevent and control polluted stormwater runoff. You must delineate areas that will not be disturbed, including critical natural areas like streamside areas, floodplains, and trees. You must also identify the measures (or BMPs) you'll use to protect these areas.

Soil erosion control tips...

- Design the site to infiltrate stormwater into the ground and to keep it out of storm drains. Eliminate or minimize the use of stormwater collection and conveyance systems while maximizing the use of stormwater infiltration and bioretention techniques.
- Minimize the amount of exposed soil on site.
 - To the extent possible, plan the project in stages to minimize the amount of area that is bare and subject to erosion. The less soil exposed, the easier and cheaper it will be to control erosion.
 - Vegetate disturbed areas with permanent or temporary seeding immediately upon reaching final grade.
 - Vegetator or cover stockpiles that will not be used immediately.
- Reduce the velocity of stormwater both onto and away from the project area.
 - Interceptors, diversions, vegetated buffers, and check dams are a few of the BMPs that can be used to slow down stormwater as it travels across and away from the project site.
 - Diversion measures can also be used to direct flow away from exposed areas toward stable portions of the site.
 - Silt fences and other types of perimeter filters should never be used to reduce the velocity of runoff.
- Protect defined channels immediately with measures adequate to handle the storm flows expected.
 - Sod, geotextiles, natural fibers, riprap, or other stabilization measures should be used to allow the channels to carry water without causing erosion. Use softer measures like geotextile or vegetation where possible to prevent downstream impacts.
- Keep sediment on site.
 - Place aggregate or stone at construction site vehicle exits to accommodate at least two tire revolutions of large construction vehicles. Much of the dirt on the tires will fall off before the vehicle gets to the street.
 - Regular street sweeping at the construction entrance will prevent dirt from entering storm drains. Do not hose paved areas.
 - Sediment traps and basins are temporary structures and should be used in conjunction with other measures to reduce the amount of erosion.
- Maintaining all BMPs is critical to ensure their effectiveness during the life of the project.
 - Regularly remove collected sediment from silt fences, berms, traps, and other BMPs.
 - Ensure that geotextiles and mulch remain in place until vegetation is well established.
 - Maintain fences that protect sensitive areas, silt fences, diversion structures, and other BMPs.

Other BMPs and Activities to Control Polluted Runoff

You'll need to select other controls to address potential pollutant sources on your site. Construction materials, debris, trash, fuel, paint, and stockpiles become pollution sources when it rains. Basic pollution prevention practices can significantly reduce the amount of pollution leaving construction sites. The following are some simple practices that should be included in the Plan and implemented on site:

- Keep potential sources of pollution out of the rain as practicable (e.g., inside a building, covered with plastic or tarps, or sealed tightly in a leak-proof container).
- Clearly identify a protected, lined area for concrete truck washouts. This area should be located away from streams, storm drain inlets, or ditches and should be cleaned out periodically.
- Park, refuel, and maintain vehicles and equipment in one area of the site to minimize the area exposed to possible spills and fuel storage. This area should be well away from streams, storm drain inlets, or ditches. Keep spill kits close by and clean up any spills or leaks immediately, including spills on pavement or earthen surfaces.
- Practice good housekeeping. Keep the construction site free of litter, construction debris, and leaking containers. Keep all waste in one area to minimize cleaning.
- Never hose down paved surfaces to clean dust, debris, or trash. This water could wash directly into storm drains or streams. Sweep up materials and dispose of them in the trash. Never bury trash or debris!
- Dispose of hazardous materials properly.

4. Certification and Notification

- Certify the Plan
- Submit permit application or notice of intent

Once the Plan has been developed, an authorized representative must sign it. Now is the time to submit the permit application or notice of intent. Your permit might require that the Plan be kept on site, so be sure to keep it available for the staff implementing the Plan.

Erosion and sedimentation control practices are only as good as their installation and maintenance.

5. Implementing and Maintaining a Plan

- Implement controls
- Inspect and maintain controls
- Update/change the Plan
- Report releases of hazardous materials

A Plan describes the practices and activities you'll use to prevent stormwater contamination and meet the NPDES permit requirements. Make sure that the Plan is implemented and that the Plan is updated as necessary to reflect changes on the site.

Erosion and sedimentation control practices are only as good as their installation and maintenance. Train the contractors that will install the BMPs and inspect immediately to ensure that the BMPs have been installed correctly.

Regularly inspect the BMPs (especially before and after rain events) and perform any necessary repairs or maintenance immediately. Many BMPs are designed to handle a limited amount of sediment. If not maintained, they'll become ineffective and a source of sediment pollution.

It's also important to keep records of BMP installation, implementation, and maintenance. Keep track of major grading activities that occur on the site, when construction activities cease (temporarily or permanently), and when a site is temporarily or permanently stabilized.

If construction plans change at any time, or if more appropriate BMPs are chosen for the site, update the Plan accordingly.

6. Completing the Project: Final Stabilization and Termination of the Permit

- Final stabilization
- Notice of Termination
- Record retention

Many states and EPA require a Notice of Termination (NOT) or other notification signifying that the construction activity is completed. An NOT is required when

- Final stabilization has been achieved on all portions of the site for which the permittee is responsible.
- Another operator has assumed control over all areas of the site that have not been finally stabilized. That operator would need to submit a new permit application to the permitting authority.
- For residential construction only, temporary stabilization of a lot has been completed prior to transference of ownership to the homeowner, with the homeowner being made aware of the need to perform final stabilization.

Permittees must keep a copy of their permit application and their Plan for at least 3 years following final stabilization. This period may be longer depending on state and local requirements.

Preconstruction Checklist

- A site description, including
 - Nature of the activity
 - Intended sequence of major construction activities
 - Total area of the site
 - Existing soil type and rainfall runoff data
- A site map with:
 - Drainage patterns
 - Approximate slopes after major grading
 - Area of soil disturbance
 - Outline of areas which will not be disturbed
 - Location of major structural and nonstructural soil erosion controls
 - Areas where stabilization practices are expected to occur
 - Surface waters
 - Stormwater discharge locations
- Name of the receiving water(s)
- A description of controls:
 - Erosion and sediment controls, including
 - Stabilization practices for all areas disturbed by construction
 - Structural practices for all drainage/discharge locations
 - Stormwater management controls, including
 - Measures used to control pollutants occurring in stormwater discharges after construction activities are complete
 - Velocity dissipation devices to provide nonerosive flow conditions from the discharge point along the length of any outfall channel
 - Other controls, including
 - Waste disposal practices that prevent discharge of solid materials
 - Measures to minimize offset tracking of sediments by construction vehicles
 - Measures to ensure compliance with state or local waste disposal, sanitary sewer, or septic system regulations
- Description of the timing during the construction when measures will be implemented
- State or local requirements incorporated into the Plan
- Inspection and maintenance procedures for control measures identified in the Plan
- Contractor certification and Plan certification

Implementation Checklist

- Maintain records of construction activities, including
 - Dates when major grading activities occur
 - Dates when construction activities temporarily cease on the site or a portion of the site
 - Dates when construction activities permanently cease on the site or a portion of the site
 - Dates when stabilization measures are completed on the site
- Prepare inspection reports summarizing
 - Name of person conducting BMP inspections
 - Qualifications of person conducting BMP inspections
 - BMPs/areas inspected
 - Observed conditions
 - Necessary changes to the Plan
- Report releases of reportable quantities of oil or hazardous materials
 - Notify the National Response Center at 800-424-8802 immediately
 - Report releases to your permitting authority immediately, or as specified in your permit. You must also provide a written report within 14 days.
 - Modify the Plan to include
 - The date of release
 - Circumstances leading to the release
 - Steps taken to prevent recurrence of the release
- Modify Plan as necessary
 - Incorporate requests of the permitting authority to bring the Plan into compliance
 - Address changes in design, construction operation, or maintenance that affect the potential for discharge of pollutants

An ounce of prevention is worth a pound of cure! It's far more efficient and cost-effective to prevent pollution than it is to try to correct problems later. Installing and maintaining simple BMPs and pollution prevention techniques on site can greatly reduce the potential for stormwater pollution and can also save you money!

Visit www.epa.gov/npdes/stormwater for more information.

What is Low Impact Development (LID)?

Ever wish you could simultaneously lower your site infrastructure costs, protect the environment, and increase your project's marketability? With LID techniques, you can. LID is an ecologically friendly approach to site development and storm water management that aims to mitigate development impacts to land, water, and air. The approach emphasizes the integration of site design and planning techniques that conserve the natural systems and hydrologic functions of a site.



Residential Lot with Bioretention

Somerset Development
Prince George's County,
MD

Source: Prince George's
County DCR

LID Benefits

In addition to the practice just making good sense, LID techniques can offer many benefits to a variety of stakeholders.

Developers

- Reduce land clearing and grading costs
- Potentially reduce infrastructure costs (streets, curbs, gutters, sidewalks)
- Reduce storm water management costs
- Potentially reduce impact fees and increase lot yield
- Increase lot and community marketability

Municipalities

- Protect regional flora and fauna
- Balance growth needs with environmental protection
- Reduces municipal infrastructure and utility maintenance costs (streets, curbs, gutters, sidewalks, storm sewer)
- Increase collaborative public/private partnerships

Environment

- Preserve integrity of ecological and biological systems
- Protect site and regional water quality by reducing sediment, nutrient, and toxic loads to water bodies
- Reduce impacts to local terrestrial and aquatic plants and animals
- Preserve trees and natural vegetation

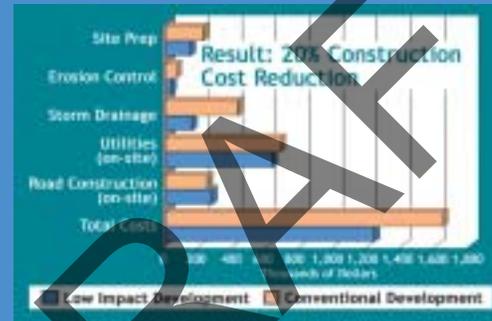
Cover Photo: R. Arendt

Case Study

Kensington Estates is a conventional development on 24 acres consisting of 103 single-family homes in Pierce County, WA. A study was conducted to redesign the site using a new state storm water model and to illustrate the full range of LID practices and technologies available to developers.

Overall, the redesigned LID site could have:

- Resulted in construction cost savings of over 20%;
- Preserved 62% of the site in open space;
- Maintained the project density of 103 lots;
- Reduced the size of storm pond structures and eliminated catchments and piped storm conveyances; and
- Achieved "zero" effective impervious surfaces.



Cost Comparison: LID vs. Conventional Development

For More Information

- Low Impact Development Center
<http://www.lowimpactdevelopment.org>
- Prince George's County, Maryland
<http://www.goprincegeorgescounty.com>
- NAHB Research Center Toolbase Services
<http://www.toolbase.org>
- U.S. EPA
<http://www.epa.gov/owow/nps/urban.html>



*Assumes paving costs of \$15/sq. yd.

Printed on recycled paper with soy ink



Builder's Guide to Low Impact Development

Would you be interested in saving upwards of \$70,000* per mile in street infrastructure costs by eliminating one lane of on-street parking on residential streets?

Did you know that communities designed to maximize open space and preserve mature vegetation are highly marketable and command higher lot prices?

Are you aware that most homeowners perceive Low Impact Development practices, such as bioretention, as favorable since such practices are viewed as additional builder landscaping?

Did you know that by reducing impervious surfaces, disconnecting runoff pathways, and using on-site infiltration techniques, you can reduce or eliminate the need for costly storm water ponds?

LID Site Planning and Design Concepts

Successful LID projects simultaneously reduce land development and infrastructure costs while protecting a property's natural resources and functions. During the development process, the designer, developer, and reviewing agency should work together to identify solutions that integrate the following concepts:

- Preserve Open Space and Minimize Land Disturbance;
- Protect and Incorporate Natural Systems (wetlands, stream/wildlife corridors, mature forests) as Design Elements;
- Utilize Neo-Traditional Street and Lot Layouts and Designs; and
- Decentralize and Micromanage Storm Water at its Source Using LID Storm Water Management Practices.

LID and Storm Water Management

LID aims to mimic natural hydrology and processes by using small-scale, decentralized practices that infiltrate, evaporate, and transpire rainwater. Specifically, LID aims to:

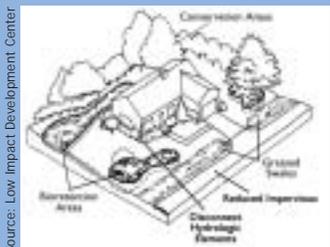
- Minimize impervious surfaces;
- Disconnect hydrologic elements (roofs, downspouts, parking areas);
- Maintain/increase flow paths and times; and
- Utilize decentralized treatment practices.

Bioretention Areas

Storm water directed to these shallow topographic depressions in the landscape is filtered, stored, and infiltrated into the ground using specialized vegetation and engineered soils.

Grassed Swales

Water moving through these systems is slowed, filtered, and percolated into the ground. These systems can act as low cost alternatives to curbs, gutters, and pipes.



LID Lot Level Source Controls

Source: Low Impact Development Center

Preserve Open Space and Minimize Land Disturbance

Source: Bielinski Homes

Community Open Space
Bielinski Homes
Waukesha, WI

Decentralize and Micromanage Storm Water at its Source using LID Storm Water Management Practices

Source: Low Impact Development Center

Grassed Swales
Somerset Development
Prince George's County, MD



From Conservation Design for Subdivisions: A Practical Guide to Creating Open Space Networks, by Randall G. Arendt. Copyright (©) 1996 by Island Press. Reprinted by permission of Island Press, Washington, D.C. and Covelo, CA.

Protect and Incorporate Natural Systems as Design Elements

Source: Applied Ecological Services, Inc.

Wetland System
Prairie Crossing
Grayslake, IL

Utilize Neo-Traditional Street and Lot Layouts and Designs

Source: DPZ & Co.

Bowman Park
Vermillion Community
Vermillion, NC

SWMPP Appendix E – Standard Operating Procedures

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City of Helena Storm Water Management Standard Operating Procedure

CHEMICAL APPLICATION – PESTICIDES, HERBICIDES, FERTILIZERS

Purpose:

To reduce pollution of storm water resulting from pesticide, herbicide, and fertilizer application.

Procedure:

1. Preparation
 - a. Ensure all applicators are properly licensed and trained.
 - b. Calibrate spreading equipment.
 - c. Locate areas that can be managed without the use of chemical application.
 - d. Do not apply chemicals if heavy rain or high winds are expected.
 - e. Choose the least toxic products that achieve desired results.
2. Process
 - a. Follow manufacturer's recommendations for application methods and rates.
 - b. Do not mix chemicals near storm drains or water bodies.
 - c. Employ techniques to reduce overspray or spray drift.
 - d. Spot treat areas as much as possible instead of widespread application.
3. Clean-up
 - a. Clean up any spilled chemicals immediately, following manufacturer's directions and/or MSDS.
 - b. Sweep any solid chemicals off sidewalks and pavement before applying irrigation.
4. Documentation
 - a. Maintain records of training and/or licenses for contracted applicators.
 - b. Maintain MSDS for all chemical stored or applied.



City of Helena Storm Water Management Standard Operating Procedure

CHEMICAL STORAGE – PESTICIDES, HERBICIDES, FERTILIZERS

Purpose:

To reduce the pollution of storm water by properly storing and disposing of pesticides, herbicides, and fertilizers.

Procedure:

1. Preparation
 - a. Provide covered, enclosed storage areas that are impervious to storm water, preferably locked cabinets.
 - b. Purchase only chemicals needed and purchase close to the time needed to reduce storage time.
 - c. Assess need for all chemicals and consider alternative management methods.
2. Process
 - a. Store chemicals in suitable areas only, to prevent unauthorized access and prevent contact with storm water.
 - b. Conduct annual review of chemicals to assess usefulness of stores; dispose of unneeded chemicals.
3. Clean-up
 - a. Clean up any spilled chemicals immediately, following manufacturer's directions and/or MSDS.
4. Documentation
 - a. Maintain MSDS for all chemicals stored.



City of Helena Storm Water Management Standard Operating Procedure

BUILDINGS – DUMPSTERS AND GARBAGE

Purpose:

To reduce pollution of storm water from improper handling of garbage.

Procedure:

1. Preparation

- a. Train employees on proper trash disposal.
- b. Locate dumpsters in easily-observable locations that are convenient to access.
- c. Provide recycle bins.
- d. Locate dumpsters and trash containers such that runoff does not directly enter the storm water system.

2. Process

- a. Inspect dumpsters and trash containers for leaks regularly.
- b. Use bins with lids and without drain holes

3. Clean-up

- a. Remove any trash around any overfilled dumpsters or bins.
- b. Replace any leaking containers.
- c. Wash bins, as needed, in area away from storm water inlets or conveyances.



City of Helena Storm Water Management Standard Operating Procedure

MATERIAL STORAGE AND SCRAP

Purpose:

To reduce the pollution of storm water by properly storing spare parts and other materials.

Procedure:

1. Preparation

- a. Identify areas for parts storage that are not connected to the storm water system.
- b. Provide organization system to neatly store parts.
- c. Assess the need for parts/materials and only store items that are useful; properly dispose of items that are not useful.

2. Process

- a. Store parts indoors or under cover whenever possible.
- b. Monitor storage areas for leaks.
- c. Clean parts of any petroleum-based residues prior to storage.
- d. Utilize drip pans or absorbent pads for any leaking parts.

3. Clean-up

- a. Immediately clean up spills using dry absorbent materials (e.g. kitty litter, sawdust, etc.), and sweep up dry material to be disposed of in trash.
- b. Replenish spill kits with any materials used during cleaning.



City of Helena Storm Water Management Standard Operating Procedure

BUILDINGS – PARKING LOTS

Purpose:

To reduce pollution of storm water from parking lot runoff.

Procedure:

1. Preparation

- a. Restrict parking in areas to be swept prior to sweeping.
- b. Perform regular maintenance on City-owned vehicles to reduce the amount of fluids and fuels that leak onto the lots.

2. Process and Clean-up

- a. Hand-sweep parking lot gutters of accumulated soil and debris.
- b. Pick up litter from parking lots and dispose of with solid waste.

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City of Helena Storm Water Management Standard Operating Procedure

PET WASTE

Purpose:

To reduce pollution of storm water from bacteria contained in pet waste.

Procedure:

1. Preparation

- a. In public areas, provide pet waste bags for owners to utilize in collecting and disposing of their pet's waste.
- b. At City facilities, locate pet kennels such that runoff will not enter the storm water system.

2. Process/Clean-up

- a. Collect any pet waste from parks and in City kennels and dispose of properly.
- b. Do not hose down kennels to clean.
- c. Keep kennels stocked with clean absorbent material, and dispose of with solid waste.

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City of Helena Storm Water Management Standard Operating Procedure

SPILL CLEAN-UP AND RESPONSE

Purpose:

The reduce pollution of storm water by responding properly to spills.

Procedure:

1. Preparation

- a. Ensure all employees are trained in spill response procedures and equipment.
- b. Fit petroleum and chemical storage containers with secondary containment where appropriate.
- c. Seal floors with paint to prevent absorption of spills.
- d. Keep a spill kit in areas where spills may occur.

2. Process and Clean-up

- a. Stop the source of the spill and contain liquids, if safe to do so.
- b. If the spill is large or a threat to public safety, call 911.
- c. Cover the spill with absorbent material such as kitty litter, sawdust, or oil absorbent pads.
- d. Deploy containment booms if spill could potentially reach a storm drain inlet or water body.
- e. Never wash spill into a storm drain or water body.
- f. Replenish any supplies used in the clean-up of spills.

3. Documentation

- a. If petroleum spill is greater than 5 gallons, report to ADEM.
- b. Notify Chad Campbell of spill and clean-up activities.
- c. If the spill resulted in a potential impact to surface or ground water, record the location, substance, quantity, measures taken, and photographic evidence of the spill and clean-up.



City of Helena Storm Water Management Standard Operating Procedure

SAND AND AGGREGATE STOCKPILING

Purpose:

To prevent the transport pollutants into storm water through the proper design and maintenance of storage piles.

Procedure:

1. Process
 - a. Keep area free of general debris and hazards.
 - b. Keep piles consolidated on pad impervious to stored material, using side walls where possible.
 - c. Locate piles in concentrated location, and away from storm water conveyances.
 - d. Cover piles where possible.
 - e. Route any drainage from piles to area secondary containment or retaining area.
2. Clean-up
 - a. Sweep up loading areas and track-out areas to prevent migration of materials.
3. Documentation
 - a. Inspect stockpile areas at least once per year and maintain records for MS4 permit compliance.



City of Helena Storm Water Management Standard Operating Procedure

VEHICLE FUELING

Purpose:

To reduce pollution of storm water resulting from the fueling of City-owned vehicles and equipment.

Procedure:

1. Preparation

- a. Train employees on proper methods to reduce spills and spill clean-up techniques.
- b. Ensure spill kits are present in areas of work and are fully stocked.
- c. Fueling nozzles should be equipped with automatic shutoff.

2. Process

- a. Shut off the engine.
- b. Fill tank carefully to minimize drips and do not overfill.
- c. Fill fuel tanks at central location equipped with storm water protections. Mobile fueling should be minimized.
- d. When fueling small equipment, do so away from storm drains and water bodies.

3. Clean-up

- a. Immediately clean up spills using dry absorbent materials (e.g. kitty litter, sawdust, etc.), and sweep up dry material to be disposed of in trash.
- b. Replenish spill kits with any materials used during cleaning.



City of Helena Storm Water Management Standard Operating Procedure

VEHICLE MAINTENANCE

Purpose:

To reduce pollution of storm water resulting from the maintenance of City-owned vehicles.

Procedure:

1. Preparation

- a. Train employees on proper methods to reduce spills and spill clean-up techniques.
- b. Ensure spill kits are present in areas of work and are fully stocked.

2. Process

- a. Perform maintenance under a canopy or inside shop building.
- b. When filling vehicles with fuel or fluids, utilize automatic shutoffs and/or ensure reservoirs are not overtopped.
- c. Utilize drip pans and absorbent pads to catch any dripping fluids.

3. Clean-up

- a. Immediately clean up spills using dry absorbent materials (e.g. kitty litter, sawdust, etc.), and sweep up dry material to be disposed of in trash.
- b. Replenish spill kits with any materials used during cleaning.



City of Helena Storm Water Management Standard Operating Procedure

VEHICLE AND EQUIPMENT STORAGE

Purpose:

To reduce pollution of storm water caused by the storage of City-owned vehicles and equipment.

Procedure:

1. Preparation
 - a. Assess the need for the equipment and consider disposal instead of storage.
 - b. Provide covered storage area whenever possible.
 - c. Locate storage area away from any storm water inlets or conveyances.

2. Process
 - a. Remove all fluids and fuels from vehicles to prevent leaks.
 - b. If fluids must remain, provide drip pans to catch leaks.
 - c. Inspect regularly for spills.

3. Clean-up
 - a. Clean up any spills as soon as they are noticed and address source.
 - b. Utilize dry absorbent materials (e.g. kitty litter, sawdust, etc.) and sweep up materials for proper disposal.
 - c. Replenish any materials used in the cleaning of spills.



City of Helena Storm Water Management Standard Operating Procedure

VEHICLE AND EQUIPMENT WASHING

Purpose:

To reduce pollution of storm water resulting from the washing of City-owned vehicles and equipment.

Procedure:

1. Preparation
 - a. Provide designated area for vehicle and equipment washing. Area should have drainage or infiltration system that is not connected to the storm water system.
 - b. Connect washing-area drainage to sanitary system wherever possible.
 - c. Utilize biodegradable, phosphate-free, water-based cleaners only.

2. Process
 - a. Minimize water and soap usage when washing.
 - b. Use hoses with automatic shutoff nozzles.

3. Clean-up
 - a. Clean solids from washing areas as they accumulate.



City of Helena Storm Water Management Standard Operating Procedure

REVIEW OF WATER QUALITY MONITORING TEST RESULTS

Purpose:

To review results of water quality monitoring.

Procedure:

Upon receipt of lab results the data should be reviewed to identify any increases or decreases in the water quality. The follow steps shall be taken to identify such results:

1. Compare results with previous test results and note any increases or decreases for each test parameter.
2. Retest the same location to determine if the increased parameter is still present.
3. If parameter is high after retesting, check for possible illicit discharges.
4. Test at the upstream boundary to determine if the abnormal parameter is caused outside of the Helena MS4 area.
5. If parameter is originating from outside of the Helena MS4 area, notify the adjacent MS4 and ADEM.



City of Helena Storm Water Management Standard Operating Procedure

NOTIFICATION OF AN ILLCIT DISCHARGE FROM AND ADJACENT MS4

Purpose:

To notify ADEM and an adjacent MS4 in the event of an illicit discharge coming from the adjacent MS4.

Procedure:

Notify the responsible MS4 and ADEM and include the following information:

1. Location of the suspect illicit discharge, including latitude and longitude, if known
2. Type of illicit discharge, if known
3. Estimated quantity or flow rate, if known
4. Origin or suspected origin of the suspect illicit discharge, if known
5. Date and time the suspect illicit discharge was observed
6. Description of affected media, including the name of the receiving waterbody, if known
7. Corrective actions being taken within the Helena MS4, if any

Contact Information

ADEM

Ph: (334) 271-7974

City of Alabaster

Ph: (205) 664-6800

City of Hoover

Ph: (205) 739-6888

City of Pelham

Ph: (205) 620-6411

Jefferson County

Ph: (205) 325-5321

Shelby County

Ph: (205) 669-3737

SWMPP Appendix F – Inspection Checklist Forms

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Sample Self Inspection Checklist

STRUCTURAL INTEGRITY

Yes No N/A

Does the facility show signs of settling, cracking, bulging, misalignment, or other structural deterioration?

Yes No N/A

Do embankments, emergency spillways, side slopes, or inlet/outlet structures show signs of excessive erosion or slumping?

Yes No N/A

Is the outlet pipe damaged or otherwise not functioning properly?

Yes No N/A

Do impoundment and inlet areas show erosion, low spots, or lack of stabilization?

Yes No N/A

Are trees or saplings present on the embankment?

Yes No N/A

Are animal burrows present?

Yes No N/A

Are contributing areas unstabilized with evidence of erosion?

Yes No N/A

Do grassed areas require mowing and/or are clippings building up?

WORKING CONDITIONS

Yes No N/A

Does the depth of sediment or other factors suggest a loss of storage volume?

Yes No N/A

Is there standing water in inappropriate areas, such as on filters or cartridges after a dry period?

Yes No N/A

Is there an accumulation of floating debris and/or trash?

OTHER INSPECTION ITEMS

Yes No N/A

Is there evidence of encroachments or improper use of impounded areas?

Yes No N/A

Are there signs of vandalism?

Yes No N/A

Do the fence, gate, lock, or other safety devices need repair?

Yes No N/A

Is there excessive algae growth, or has one type of vegetation taken over the facility?

Yes No N/A

Is there evidence of oil, grease, or other automotive fluids entering and clogging the facility?

Yes No N/A

In rain gardens, is there evidence of soil erosion, does mulch cover the entire area, are specified number and types of plants still in place, or is there evidence of disease or plant stress from inadequate or too much watering?

OTHER OBSERVATIONS

A yes answer to any of these items should result in corrective action or a call to a professional inspector.

NOTE: The intent of the checklist is to provide a general sense of the areas of concern and issues that should be considered when inspecting a stormwater facility. A local government contact may provide a more comprehensive checklist for a specific type of facility.

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed:		Outfall ID:	
Today's date:		Time (Military):	
Investigators:		Form completed by:	
Temperature (°F):	Rainfall (in.):	Last 24 hours:	Last 48 hours:
Latitude:	Longitude:	GPS Unit:	GPS LMK #:
Camera:		Photo #s:	
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input type="checkbox"/> Ultra-Urban Residential		<input type="checkbox"/> Institutional	
<input type="checkbox"/> Suburban Residential		Other: _____	
<input type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input type="checkbox"/> Closed Pipe	<input type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input type="checkbox"/> Other: _____	<input type="checkbox"/> Circular <input type="checkbox"/> Single <input type="checkbox"/> Elliptical <input type="checkbox"/> Double <input type="checkbox"/> Box <input type="checkbox"/> Triple <input type="checkbox"/> Other: _____ <input type="checkbox"/> Other: _____	Diameter/Dimensions: _____	In Water: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)			
Flow Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER	RESULT	UNIT	EQUIPMENT	
<input type="checkbox"/> Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
<input type="checkbox"/> Flow #2	Flow depth		In	Tape measure
	Flow width	_____ ' _____"	Ft, In	Tape measure
	Measured length	_____ ' _____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature		°F	Thermometer	
pH		pH Units	Test strip/Probe	
Ammonia		mg/L	Test strip	

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? Yes No (If No, Skip to Section 5)

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	<input type="checkbox"/>	<input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas <input type="checkbox"/> Sulfide <input type="checkbox"/> Other:	<input type="checkbox"/> 1 – Faint	<input type="checkbox"/> 2 – Easily detected	<input type="checkbox"/> 3 – Noticeable from a distance
Color	<input type="checkbox"/>	<input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow <input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other:	<input type="checkbox"/> 1 – Faint colors in sample bottle	<input type="checkbox"/> 2 – Clearly visible in sample bottle	<input type="checkbox"/> 3 – Clearly visible in outfall flow
Turbidity	<input type="checkbox"/>	See severity	<input type="checkbox"/> 1 – Slight cloudiness	<input type="checkbox"/> 2 – Cloudy	<input type="checkbox"/> 3 – Opaque
Floatables -Does Not Include Trash!!	<input type="checkbox"/>	<input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:	<input type="checkbox"/> 1 – Few/slight; origin not obvious	<input type="checkbox"/> 2 – Some; indications of origin (e.g., possible suds or oil sheen)	<input type="checkbox"/> 3 – Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? Yes No (If No, Skip to Section 6)

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	<input type="checkbox"/>	<input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint <input type="checkbox"/> Corrosion	
Deposits/Stains	<input type="checkbox"/>	<input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:	
Abnormal Vegetation	<input type="checkbox"/>	<input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited	
Poor pool quality	<input type="checkbox"/>	<input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen <input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other:	
Pipe benthic growth	<input type="checkbox"/>	<input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:	

Section 6: Overall Outfall Characterization

Unlikely
 Potential (presence of two or more indicators)
 Suspect (one or more indicators with a severity of 3)
 Obvious

Section 7: Data Collection

1. Sample for the lab?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
2. If yes, collected from:	<input type="checkbox"/> Flow	<input type="checkbox"/> Pool	
3. Intermittent flow trap set?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If Yes, type: <input type="checkbox"/> OBM <input type="checkbox"/> Caulk dam

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?



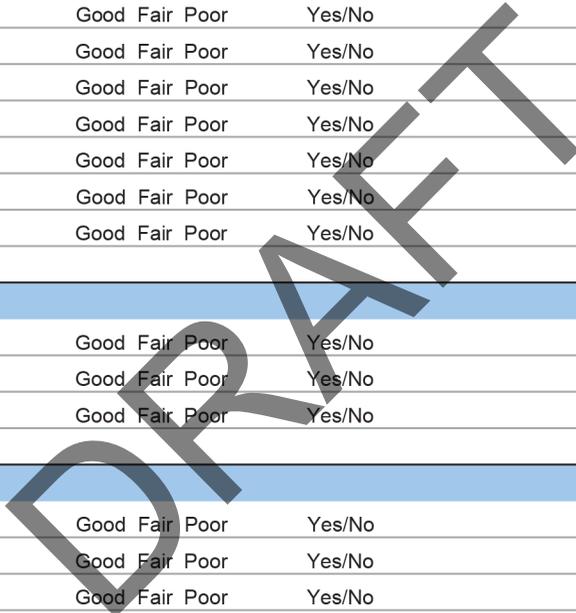
Date: _____
 Time: _____
 Inspector: _____

Development/Construction Site: _____

Developer/Contractor/Permit Holder: _____

Location: _____ NPDES Permit ___ Yes ___ No

	Condition Assessment			Maintenance Required?	Comments/Considerations
Sediment Control Structures					
Sediment Trap	Good	Fair	Poor	Yes/No	
Filter Structure	Good	Fair	Poor	Yes/No	
Detention/Retention Pond	Good	Fair	Poor	Yes/No	
Outlet Structure	Good	Fair	Poor	Yes/No	
Flocculants (blocks, logs)	Good	Fair	Poor	Yes/No	
Discharge Headwall	Good	Fair	Poor	Yes/No	
Other: _____	Good	Fair	Poor	Yes/No	
Sheet Flow Barriers					
Hay Bales	Good	Fair	Poor	Yes/No	
Silt Fence	Good	Fair	Poor	Yes/No	
Stabilization of Barren Areas	Good	Fair	Poor	Yes/No	
Mulching	Good	Fair	Poor	Yes/No	
Seeding and Mulching	Good	Fair	Poor	Yes/No	
Chemical Stabilization	Good	Fair	Poor	Yes/No	
Other: _____	Good	Fair	Poor	Yes/No	
Channel Check Structures					
Rock Check	Good	Fair	Poor	Yes/No	
Silt Fence Check	Good	Fair	Poor	Yes/No	
Bale Check	Good	Fair	Poor	Yes/No	
Stream Bank Stabilization					
Chemical Stabilization	Good	Fair	Poor	Yes/No	
Rip Rap	Good	Fair	Poor	Yes/No	
Stream Crossing and Protection	Good	Fair	Poor	Yes/No	
Other: _____	Good	Fair	Poor	Yes/No	
Inlet Protection					
Hay Bales	Good	Fair	Poor	Yes/No	
Silt Fence	Good	Fair	Poor	Yes/No	
Inlet Barriers	Good	Fair	Poor	Yes/No	
Curb Inlet Protection	Good	Fair	Poor	Yes/No	
Other Prefabricated Measures	Good	Fair	Poor	Yes/No	
General Site Measures					
Construction Entrance	Good	Fair	Poor	Yes/No	
Posting of Permits	Good	Fair	Poor	Yes/No	
Buffer Areas Marked/Maintained	Good	Fair	Poor	Yes/No	
Construction Limits Marked	Good	Fair	Poor	Yes/No	





INDUSTRIAL STORMWATER INSPECTION REPORT

FACILITY NAME:	INSPECTION TIME:	DATE:
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WEATHER INFORMATION:

- Description of Weather Conditions (e.g., sunny, cloudy, raining, etc.):

- Was stormwater (e.g., runoff from rain) flowing at outfalls during the inspection: Yes No Comments:

I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BEST MANAGEMENT PRACTICES EVALUATION

	Yes	No	NA	
<p>Vehicle/Equipment Areas:</p> <p><i>Equipment cleaning: Check NA if not performed on-site. Skip section.</i></p> <p>Is equipment washed and/or cleaned only in designated areas?</p> <ul style="list-style-type: none"> • Observe washing: Is all wash water captured and properly disposed of? <p><i>Equipment fueling: Check NA if not performed on-site. Skip section.</i></p> <ul style="list-style-type: none"> • Are all fueling areas free of contaminant buildup and evidence of chronic leaks/spills? • Are all chemical liquids, fluids, and petroleum products, on an impervious surface that is surrounded with a containment berm or dike that is capable of containing 10% of the total enclosed tank volume or 110% of the volume contained in the largest tank, whichever is greater? • Are structures in place to prevent precipitation from accumulating in containment areas? <ul style="list-style-type: none"> ○ If not, is there any water or other fluids accumulated within the containment area? 				<p>Findings and Remedial Action Documentation:</p>

<p>Equipment maintenance:</p> <ul style="list-style-type: none"> • Are maintenance tools, equipment and materials stored under shelter, elevated and covered? • Are all drums and containers of fluids stored with proper cover and containment? • Are exteriors of containers kept outside free of deposits? • Are any vehicles and/or equipment leaking fluids? Identify leaking equipment. • Is there evidence of leaks or spills since last inspection? Identify and address. • Are materials, equipment, and activities located so that leaks are contained in existing containment and diversion systems (confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to protected areas)? <p>Add any additional site-specific BMPs:</p> <hr/> <hr/> <hr/> <hr/>	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
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I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BEST MANAGEMENT PRACTICES EVALUATION

<p>Good Housekeeping BMPs:</p> <p>1. Are paved surfaces free of accumulated dust/sediment and debris?</p> <ul style="list-style-type: none"> • Date of last quarterly vacuum/sweep _____ • Are there areas of erosion or sediment/dust sources that discharge to storm drains? <p>2. Are all waste receptacles located outdoors:</p> <ul style="list-style-type: none"> • In good condition? • Not leaking contaminants? • Closed when is not being accessed? • External surfaces and area free of excessive contaminant buildup? <p>3. Are the following areas free of accumulated dust/sediment, debris, contaminants, and/or spills/leaks of fluids?</p> <ul style="list-style-type: none"> • External dock areas • Pallet, bin, and drum storage areas • Maintenance shop(s) • Equipment staging areas (loaders, tractors, trailers, forklifts, etc) • Around bag-house(s) • Around bone yards • Other areas of industrial activity: <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
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<p>Spill Response and Equipment:</p> <p>Are spill kits available, in the following locations?</p> <ul style="list-style-type: none"> • Fueling stations • Transfer and mobile fueling units • Vehicle and equipment maintenance areas <p>Do the spill kits contain all the permit required items?</p> <ul style="list-style-type: none"> • Oil absorbents capable of absorbing 15 gallons of fuel. • A storm drain plug or cover kit. • A non-water containment boom, a minimum of 10 feet in length with a 12 gallon absorbent capacity. • A non-metallic shovel. • Two five-gallon buckets with lids. <p>Are contaminated absorbent materials properly disposed of?</p>	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BEST MANAGEMENT PRACTICES EVALUATION				
<p>General Material Storage Areas:</p> <ul style="list-style-type: none"> • Are damaged materials stored inside a building or another type of storm resistance shelter? • Are all uncontained material piles stored in a manner that does not allow discharge of impacted stormwater? • Are scrap metal bins covered? • Are outdoor containers covered? 	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
<p>Stormwater BMPs and Treatment Structures: Visually inspect all stormwater BMPs and treatment structures devices, discharge areas infiltration and outfalls shown on the Site Map.</p> <ul style="list-style-type: none"> • Are BMPs and treatment structures in good repair and operational? • Are BMPs and treatment structures free from debris buildup that may impair function? • The permit requires Permittees to clean catch basins when the depth of debris reaches 60% of the sump depth. In addition, the Permittee must keep the debris surface at least 6 inches below the outlet pipe. Based on this, do catch basins need to be cleaned? • Are berms, curbing or other methods used to divert and direct discharges adequate and in good condition? 	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
<p>Observation of Stormwater Discharges:</p> <ul style="list-style-type: none"> • Is the discharge free of floating materials, visible oil sheen, discoloration, turbidity, odor, foam or any other signs of contamination? • Water from washing vehicles or equipment, steam cleaning and/or pressure washing is considered process wastewater and is not allowed to comingle with stormwater or enter storm drains. Is process water comingling with stormwater or entering storm drains? • Illicit discharges include domestic wastewater, noncontact cooling water, or process wastewater (including leachate). Were any illicit discharges observed during the inspection? 	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>



Public Comment Form

Name: _____

Date: _____

Contact Information: _____

SWMPP Section:

Comment:

SWMPP Section:

Comment:

SWMPP Section:

Comment:

DRAFT