

**2022 ANNUAL REPORT  
CITY OF PELHAM**



**MUNICIPAL SEPARATE STORM SEWER SYSTEM**

**JANUARY 2023**

Prepared by: Municipal Consultants, Inc.



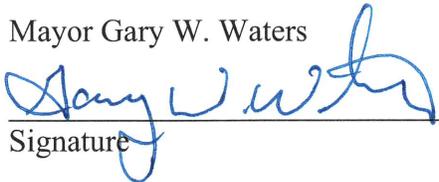
CERTIFICATION STATEMENT

FOR THE

CITY OF PELHAM MS4 PERMIT  
NPDES PERMIT NO. ALS000009  
ANNUAL REPORT  
FIRST PERMIT YEAR, FIRST CYCLE  
JANUARY 2023

I certify under 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 possibilities of fine and imprisonment for knowing violations.

Mayor Gary W. Waters

  
Signature

JAN 12, 2023  
Date

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## Part 1: Contact List

Agency	Contact	Address & Telephone
City of Pelham	Gretchen DiFante City Manager	P.O. Box 1419 Pelham, AL 35124 (205) 620-6520 <a href="mailto:gdifante@pelhamalabama.gov">gdifante@pelhamalabama.gov</a>
	Andre' Bittas Director of Development Services & Public Works	Box 1479 Pelham, AL 35124 (205) 620-6413 <a href="mailto:abittas@pelhamalabama.gov">abittas@pelhamalabama.gov</a>
	Chris Cousins Interim City Engineer	P.O. Box 1419 Pelham, AL 35124 (205) 620-6408 <a href="mailto:cityengineer@pelhamalabama.gov">cityengineer@pelhamalabama.gov</a>
	Levis Peters Building Official	P.O. Box 1238 Pelham, AL 35124 (205) 620-6409 <a href="mailto:lpeters@pelhamalabama.gov">lpeters@pelhamalabama.gov</a>
	Daniel Hamlin Sewer Dept. Supervisor	P.O. Box 1479 Pelham, AL 35124 (205) 620-6424 <a href="mailto:dhamlin@pelhamalabama.gov">dhamlin@pelhamalabama.gov</a>
	Mickey Dunnaway Public Works Manager	P.O. Box 1479 Pelham, AL 35124 (205) 620-6416 <a href="mailto:mdunnaway@pelhamalabama.gov">mdunnaway@pelhamalabama.gov</a>
	Brian Cooper Director of Parks and Recreation	P.O. Box 1419 Pelham, Alabama 35124 (205) 620-6417 <a href="mailto:bcooper@pelhamalabama.gov">bcooper@pelhamalabama.gov</a>
	Chief Mike Reid Fire Department	P.O. Box 1419 Pelham, AL 35124 (205) 620-6500 <a href="mailto:mreid@pelhamalabama.gov">mreid@pelhamalabama.gov</a>
Municipal Consultants, Inc.	Andrew Golden and Byron Woods	200 Century Park South, Suite 212 Birmingham, AL 35226 (205) 822-0387 <a href="mailto:agolden@municipalconsultants.org">agolden@municipalconsultants.org</a> <a href="mailto:bwoods@municipalconsultants.org">bwoods@municipalconsultants.org</a>

## **Part II: Program Evaluation**

### **A. Objective of Program**

The purpose of this program is to comply with the requirements of NPDES Permit ALS000009, to prohibit the discharge of non-storm water into the municipal separate storm sewer system (MS4), and to reduce the discharge of pollutants from the MS4 to the maximum extent practicable.

### **B. Major Findings**

This year marks the first year of the first permit cycle of NPDES Permit #ALS000009. The City was recently issued the new permit by ADEM with an effective date of March 2, 2022. The City appreciates ADEM's time and dedication in working with the City through the permitting process. As a result of the new permit, the MS4 recently submitted a revised Stormwater Management Program Plan (SWMPP) in accordance with the new permit.

Although there are several minor changes to the MS4 Program due to the new permit, this permit year was conducted very similar to the previous year while the MS4 made updates to the SWMPP. Regarding this year's Monitoring Program, the MS4 conducted its sixth full year of Wet Weather Sampling and TMDL Monitoring, among other accomplishments. Additional detail regarding sampling is included in Part III, Section K and Appendices A and B.

The MS4 has continued to engage in new and existing cooperative efforts and technological advancements that will continue to improve implementation of the Storm Water Management Program and facilitate the program as experience is gained with both the institutional and technological relationships. The Pelham MS4 is pleased to provide this Annual Report to display the work of the Storm Water Management Program during this past year.

### **C. Major Accomplishments**

1. Continued to improve and update the MS4 GIS spatial database with SWMP data with a focus on Structural Control Maintenance, Illicit Discharge Detection and Elimination, Monitoring, and TMDL receiving waters.
2. For the SWMP's Illicit Discharge Detection and Elimination Program, Dry Weather Screening was conducted per the permit. The maps that have been developed through the GIS database for dry weather screening have proven a notable advancement in this program's efficiency and accuracy. The MS4 continues to re-evaluate its current inventory of major outfalls in the field with the intent of providing even more accurate data on the location of these outfalls. Additional details regarding the annual dry weather screening findings are available in Part III, Section C and Appendix C.
3. As a part of the ongoing improvements to the SWMP administration, the MS4 has continued with cross-department coordination and procedure with

respective municipal services to the benefit of the Construction, Post-Construction, Municipal Operations, and Pesticide, Herbicide, and Fertilizer Programs.

4. Performed Wet Weather Sampling at the three sampling sites specified in the MS4's SWMPP. This data is included in Appendix A.
5. Continued TMDL monitoring of the two streams within the MS4's boundary, upstream of the Cahaba River, for which ADEM has developed TMDLs. The effort includes a sampling series conducted during both summer and winter weather conditions with the intent of developing a geomean pathogen concentration for both seasons, as well as suspended solids and phosphorus concentrations. This data is included in Appendix B.
6. Ongoing emphasis on improvement of record keeping continues to facilitate more effective program evaluation and tracking of control measures and practices, which better enables the assessment of the SWMP implementation including monitoring; structural controls; development review and inspection; pesticide, herbicide, and fertilizer practices; and educational outreach.
7. The City conducted inspections of its inventory of municipal facilities capable of negatively impacting storm water.
8. Continued routine Industrial Inspections per the permit and SWMPP. Additionally, the MS4 has performed a review of all known NPDES permitted facilities' discharge monitoring reports for the past year.
9. Continued to distribute storm water pamphlets and educational materials targeted at the general public for educational purposes.
10. The MS4 is now in its ninth year of publishing information on the City's website that provides the public with educational material, an explanation of the program, and contact number and request for action form for reporting storm water issues (<http://www.pelhamalabama.gov>).
11. The City performed its sixth annual mass distribution of educational material, which specifically targeted the importance of protecting stormwater from automotive fluids. This material was sent to local businesses within the City that likely handle automotive fluids based on their business license code.
12. The MS4 continued to engage the USGS to perform flow measurements (ongoing) at two wet weather sampling sites which will allow the MS4 to record water level and stream flow during sampling events moving forward. We anticipate multiple years of data will be needed to develop a reliable rating of these sites.
13. The City has developed additional means of educational outreach through E-Newsletters. The MS4 is encouraged by the impact that these newsletters will provide in terms of stormwater education for years to come.

14. The City has transitioned away from the twice a year “Heavy Trash Day” and has entered into a contract with a new garbage pick-up service. The new service includes more frequent pick up of household hazardous wastes and bulk items. The MS4 is encouraged by this transition and believes this will encourage more proper disposals of such wastes than ever before.
15. The MS4 performed an annual inspection of all post-construction structural controls included in the FY22 inventory as required by the permit. Additionally, 2 controls were constructed in the permit year and have been added to the inventory and map as required.
16. The City continues to provide annual training as required for multiple facets of the SWMP. This training event was held on September 16, 2022 and attended by 6 employees across multiple departments.

#### **D. Overall Strengths and Weaknesses**

##### Strengths:

A key to the successful implementation of the City of Pelham’s SWMP has been the proactive approach to administration. This proactive philosophy is represented in multiple ways from the MS4’s cooperative relationships to the advancements in procedures that result in effective program evaluation. The MS4 has successfully developed relationships and pursued correspondence with state and federal regulators and local MS4s that have helped the program plan for the future and efficiently allocate resources. The MS4’s relationships with stakeholders have helped in providing outlets and targeting recipients of educational information. The interdepartmental cooperation that the MS4 has actively developed is expected to increase program effectiveness and efficiency in nearly every aspect of the SWMP.

Another example would be the MS4’s implementation of sampling to investigate known impairments within and/or downstream of the permit boundary for which TMDLs have been developed. By initiating the sampling series once the impairment is presented, the MS4 has placed itself in a good position for developing a baseline and gathering more information to further track pollutant sources.

##### Weaknesses:

Overall, we do not believe there are any significant weaknesses in the MS4 program. Much of the SWMPP has been implemented or will be implemented in the near future. One weakness we see is the transition period for the City to update the City's Stormwater Ordinance, particularly as it pertains to the new post-construction requirements.

## **E. Future Direction of the Program**

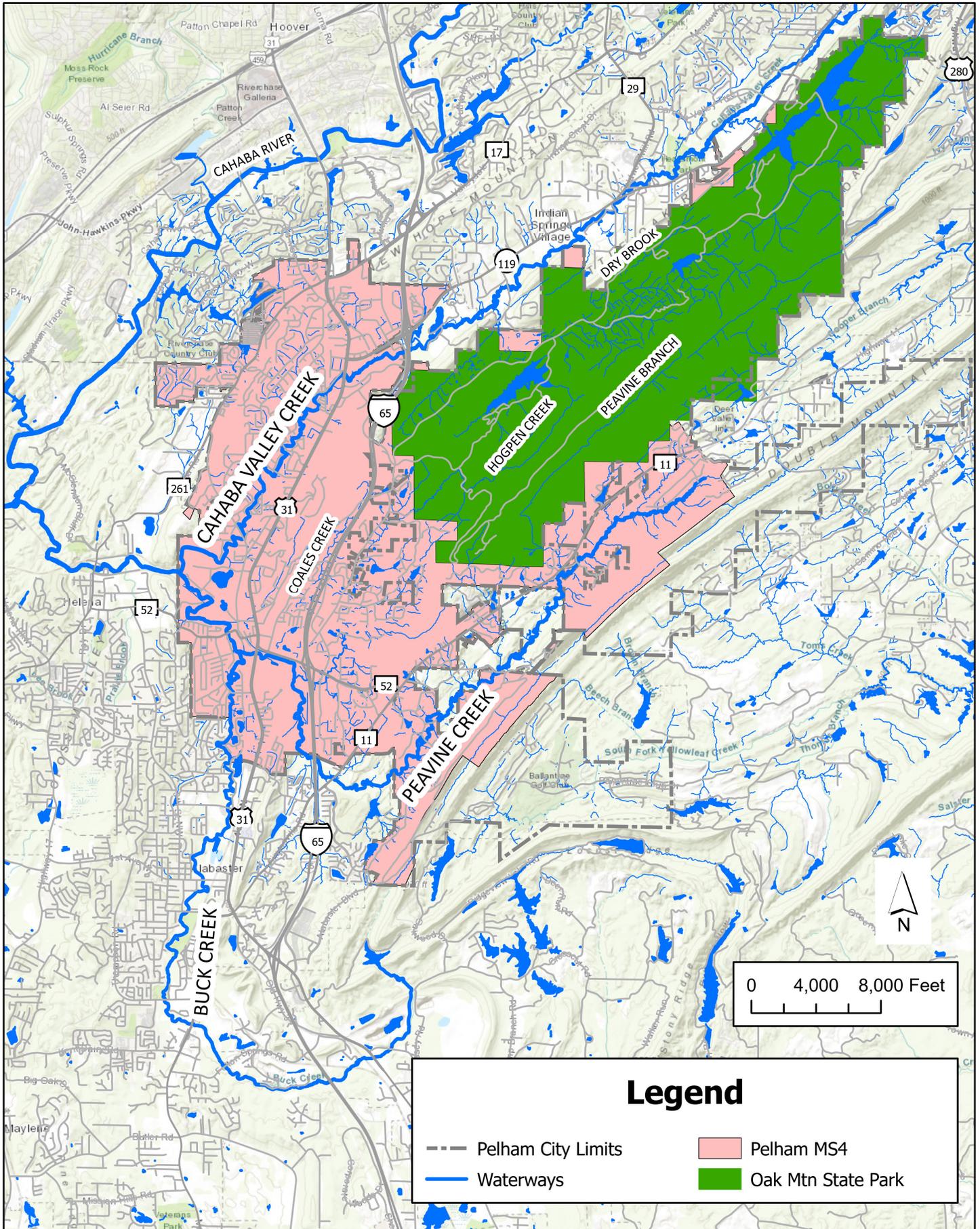
With this the first year of the first cycle of the new permit, the MS4 has strived to address and implement all required elements of various programs per the schedule provided in the SWMPP. Moving forward, we expect to see a continuance of sharing data with neighboring MS4s, ADEM, and other agencies in an effort to increase our understanding of the Cahaba River drainage basin's characteristics and reduce redundant sampling and testing. In addition, the MS4 will continue to rely heavily on the GIS spatial database in guiding future efforts and managing data. This includes an on-going, multi-year, City-wide storm sewer collection system inspection and mapping program with the goal of having a more comprehensive storm sewer collection system map within the City's GIS database.

The MS4 has continued coordinated systems with the City's building department that inspects the construction best management practices (BMPs) on all construction sites regardless of size. The construction site inspection procedures have been developed as part of the SWMPP and include BMP inspections as part of each routine building inspection. This results in multiple inspections for all construction sites. Further, the City is currently transitioning to new software that is expected to provide improved plan review and inspection tracking for future developments throughout the City.

Future SWMP implementation is also expected to include continuation of targeted sampling series that focus on known water quality impairments. Similar to the previous year, the MS4 evaluated watersheds that were identified in Pathogen TMDLs within the MS4 boundary. This targeted sampling was conducted to establish trends related to weather, watershed characteristics, and watershed location. It is expected that this type of focused evaluation will be required in the future to identify potential pollution sources. Additionally, the City is continuing to engage with the USGS for the purpose of providing stream flow information at the MS4's in-stream Wet Weather sampling sites so that the MS4 may produce pollutant loadings from sampling data gathered, where feasible. This will provide an abundance of information in regards to water quality and loadings and help in assessing the SWMPP's effectiveness.

As stated previously, the MS4 anticipates making substantial changes to some of the City's existing ordinances, such as the current stormwater ordinance, in the near future as resources allow.

# Figure 1: Overall MS4 Boundary



## Part III: Narrative Report

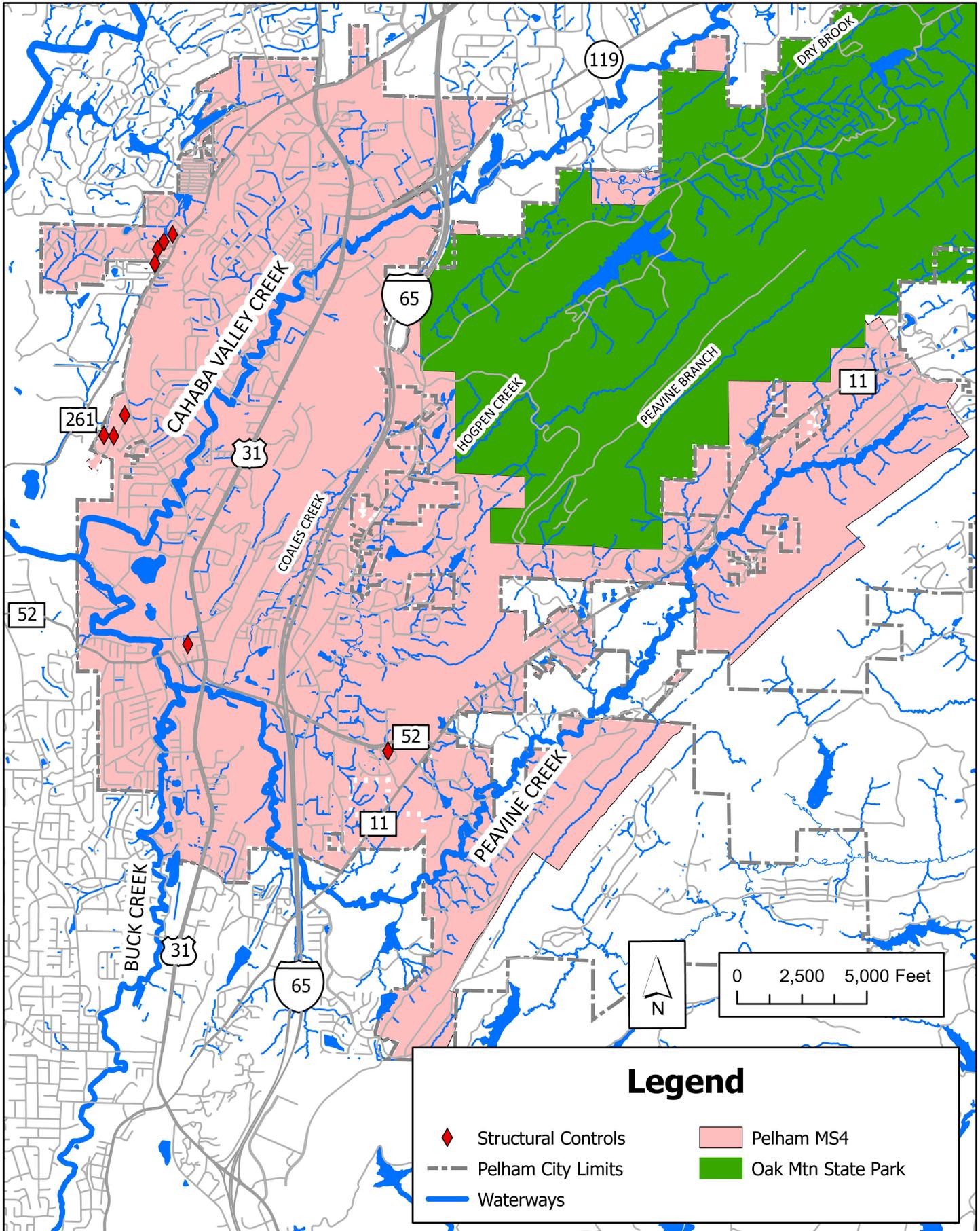
### A. Structural Controls:

1. Objective:  
The objective of the structural controls program is to inspect and maintain City owned structural controls in such a way as to minimize the contamination of the local waterways by storm water runoff.
2. Activities completed or in progress:  
As a part of annual protocol, an inspection schedule was prepared and implemented for each structural control in the project area. Each structural control was inspected semi-annually.
3. General discussion:  
All structural controls were added to the MS4 GIS spatial database in an effort to more accurately and efficiently maintain inspection and maintenance records. In addition, it makes possible the correlation of structural control maintenance with water quality. The structural controls inventory consists of eight detention ponds and one retention pond. All other structural controls in the MS4 are owned, operated, or maintained by private landowners or neighborhood associations.
4. Status:  
All structural controls have been operating within their design parameters and the need for minor maintenance noted throughout the year will be scheduled as resources allow.
5. Strengths and weaknesses:  
A strength of this program is utilizing the MS4 GIS spatial database for structural control inspection and maintenance records.
6. Assessment:  
All structural controls have been operating within their design parameters. Maintenance needs were noted at three controls, however, the repairs noted are more aesthetic in nature and therefore they are anticipated to be addressed at a later time as resources allow.
7. Proposed revisions:  
There are no proposed revisions anticipated at this time.

8. Measurable Goals:

<b>Program Component</b>	<b>Description and Frequency</b>	<b>Completed</b>
Structural Control Inventory	Update Inventory and Map as Needed	<u>0</u> Additions from previous permit year
Inspections	Inspect Semi-Annually	<u>9</u> Existing Structural Controls <u>18</u> Routine Inspections Performed <u>0</u> Follow-Up Inspections Performed
Maintenance	Maintain as Needed	<u>3</u> Controls Recommended for Minor Maintenance <u>0</u> Maintenance Actions Performed <u>56</u> Mowings Performed <u>5</u> lbs of Debris/Sediment Removed
Program Evaluation	Evaluate Program Effectiveness Annually	<u>1</u> Review Performed

# Figure 2: Structural Controls



**B. Public Education and Public Involvement:**

1. Objective:  
The objective of the public education and involvement program is to inform the community about the impacts of non-storm water discharges on water bodies.
  
2. Activities completed or in progress:  
The City’s website provides a method for reporting an illicit discharge or other storm drainage related problem as well as general educational information regarding storm water at [www.pelhamalabama.gov](http://www.pelhamalabama.gov). The MS4 also distributed its sixth mass mail-out of educational materials that focused on the importance of preventing automotive fluids from contaminating stormwater. This mail out was directed towards businesses within the City whose business license code/category indicates that the business likely handles automotive fluids on a routine basis. A total of 63 businesses were targeted for this mailout. In addition to this mailout, the City also performed a “Go Green” mailout to all water system customers (approximately 12,500 accounts) encouraging the use of the Water Department’s paperless billing option. City staff also provided stormwater educational materials during the City’s Annual Pelham Palooza held on May 21, 2022.

The City promoted 2 separate events held during the stormwater fiscal year through the use of its recently developed E-Newsletter. Both events focused on the importance of native plant species and their conservation. The “Nature Scavenger Hunt” was held on May 7, 2022 at the Pelham Recreation Center and was geared towards children ages 7-12. This event was held in partnership with Shelby County Master Gardener Teresa Riddle and focused on plant identification and their preservation. The second event, “The Oak Workshop”, was held at Oak Mountain State Park on July 25, 2022 and focused on the importance of oak tree preservation.

The City also held an electronics recycling event on April 2, 2022 as it has continued to do so over recent years. In lieu of the previously held “Heavy Trash Day” events that took place twice a year, the City entered into a contract with a new garbage service vendor that provides weekly curbside pick-up of household hazardous wastes and bulk items to each customer. The MS4 is encouraged by this new garbage service with the belief that by making it more convenient for residents to dispose of some household hazardous wastes through routine curbside pick-up, it will discourage illegal dumping and improper disposal of such wastes. For both the electronics recycling event and the change in garbage service, the City distributed informative E-Newsletters that encouraged the use of these services and how they can help improve the environment.

3. General discussion:  
The MS4 has had several forms of literature and media prepared and made available to the public through multiple distribution points for some time now. The MS4 continues to increase emphasis of accomplishing public education and involvement goals through digital/contactless means as a result of the COVID-19 pandemic and is encouraged by the recently developed E-Newsletter. More details of this and other educational programs are provided in the SWMPP.

4. **Status:**  
The MS4 is in good standing with respect to the public education and involvement program. The City also continues to asses their website (and updated as needed) to include the most current information regarding the MS4, the SWMPP, and additional educational materials.
  
5. **Strengths and weaknesses:**  
The Public Education Program has benefited from the City’s cooperative municipal and stakeholder partnerships and the MS4’s ability for creative outreach. An additional strength that the MS4 anticipates is the potential for the GIS spatial database to serve as a powerful tool for targeting areas public outreach efforts within the drainage basins of sensitive receiving waters.
  
6. **Assessment:**  
The impact of the MS4’s public education efforts are now more apparent with the improved documentation and tracking procedures that quantify the dissemination of educational materials. The MS4 is pleased to report that the goal of hosting a workshop was accomplished this year as is mentioned above.
  
7. **Proposed revisions:**  
The MS4 is working on the development of new informational brochures to be available for distribution in water bill mail-outs along with developing new MS4 educational and training workshops. These workshops will be open to the public and include information and education focused on specific topics including: pesticides, herbicides and fertilizers, Best Management Practices in agricultural and construction locations, oil, gas, and industrial impact, and post construction monitoring.
  
8. **Measurable Goals:**

<b>Program Component</b>	<b>Description and Frequency</b>	<b>Completed</b>
Educational Material Distribution	Distribution On-Going	<u>5</u> Material Distribution Site(s) City Hall, Building Department, Water & Sewer Dept., City Library, City website
Targeted Educational Material Mail outs	Distribute Once Annually per the SWMPP	<u>2</u> Targeted Mail Outs
Educational Workshops and Training Courses	Participate and Promote Events Once Annually	<u>2</u> Workshop Promoted & Hosted
Volunteer Clean-Up Events	Encourage Once Annually	<u>2</u> Events (1 E-Recycle Day and 1 Volunteer Litter Pick-Up)
Municipal Facility Employee Training	Provide Annual Training	<u>1</u> Training Event
Program Evaluation	Evaluate Program Effectiveness Annually	<u>1</u> Review Performed

## C. **Illicit Discharge Detection and Elimination:**

1. **Objective:**  
The objective of the illicit discharge detection and elimination program is to detect and eliminate illicit discharges and improper disposal into the storm sewer system.
2. **Activities completed or in progress:**  
32 of the 128 major outfalls were screened within this first year of the five-year permit cycle. One dry weather discharge was discovered as a result of this permit year's screening activities. After further investigation, this discharge was from a nearby water main break and therefore was not sampled. A list of outfalls screened this permit year is included within Appendix C. Prior to dry weather screening activities, the City's consultant (MCI) performed internal inspection training on September 19, 2022 for all dry weather screening inspectors.

The MS4 continues to dedicate resources to re-evaluating and updating the major outfall inventory. This will be a continuing effort over the next several years to ensure that the MS4 is operating with the most current and accurate information.

Two suspected illicit discharges were investigated as a result of two separate concerns received by the City from the general public. One issue was concern from an oily sheen noted in some standing water near a daycare center. The other concern was foam noted in Cahaba Valley Creek. The MS4 is pleased to report that both were investigated through means of sampling and believed to be naturally occurring. Additional information such as sampling results, locations, and correspondence regarding the complaints can be found in Appendix C.

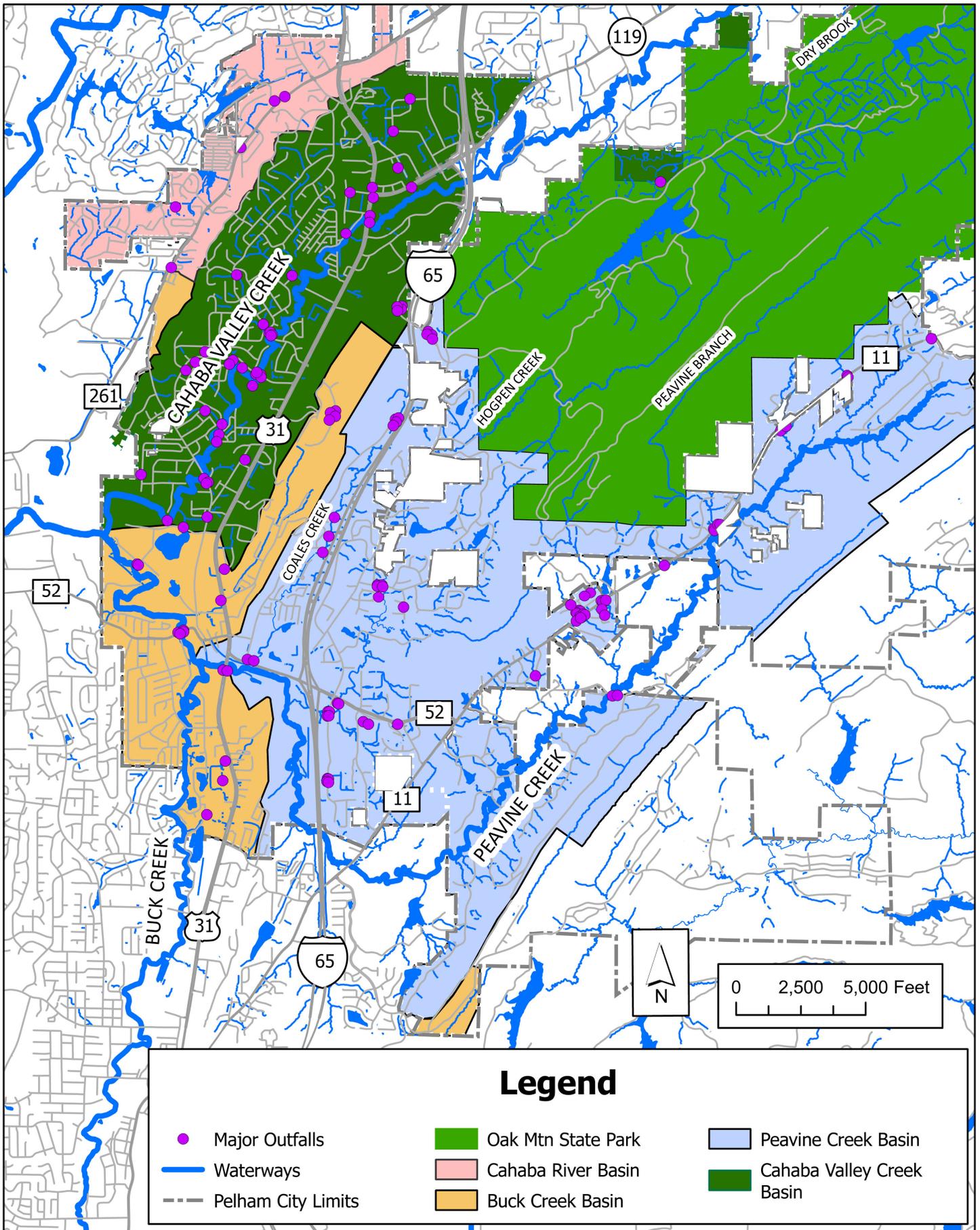
3. **General discussion:**  
A program to detect and investigate illicit discharges and the improper disposal of contaminants has been developed by the City and is outlined in the SWMPP. Following the guidelines of the Dry-Weather Screening Procedural Flow Chart presented in the SWMPP, a list of priority outfalls is maintained by the City. There is currently one outfall on the priority list based on the results of the last permit cycle's screening activities. This list will be expanded as needed per the SWMPP from future screening activities and/or citizen complaints. The goal is for all outfalls to be inspected at least once per permit cycle.
4. **Status:**  
All of the inventoried MS4 outfalls have been incorporated into the GIS spatial database. Screening activities were conducted as required and per the SWMPP this year.
5. **Strengths and weaknesses:**  
The primary strength of this program is the pro-active approach the MS4 has taken to seek technological solutions to increase the efficiency and effectiveness of the Illicit Discharge Detection and Elimination Program. An additional strength is the training of multiple City employees who routinely spend time in the MS4 performing outdoor tasks. This greatly increases the opportunity for the

MS4 to identify an illicit discharge.

6. **Assessment:**  
The City is encouraged by the advancements with respect to the Illicit Discharge Detection and Elimination Program. The development of the GIS spatial database enables the integration of spatial and historical data required in effective assessment of the program. The MS4 continues to be encouraged by the results of its IDDE training efforts.
7. **Proposed revisions:**  
No revisions are proposed at this time.
8. **Measurable Goals:**

<b>Program Component</b>	<b>Description and Frequency</b>	<b>Completed</b>
Illicit Screening	All Sites Screened once per Permit Cycle, 20% per year	<u>128</u> Existing Major Outfalls <u>32</u> Outfalls Screened this Year <u>0</u> Follow-Up Screenings
Illicit Discharge Investigation	Illicit Discharge Investigation as Needed	<u>2</u> Illicit Discharges Investigated
Illicit Discharge Monitoring	Sampling as Needed	<u>2</u> Illicit Discharges Sampled
Sanitary Sewer Overflow	Record Reported Raw Sewer Discharges Annually	<u>7</u> Raw Sewer Discharges Reported
Enforcement Action	Enforcement Action Taken as Needed	<u>0</u> Enforcement Action (Notice of Violations Issued) <u>0</u> Illicit Discharges Eliminated
IDDE Training	Annual Training for City Employees	<u>1</u> Staff Course/Training Attended by <u>6</u> Employees
Program Evaluation	Evaluate Program Effectiveness Annually	<u>1</u> Review Performed

# Figure 3: Major Outfalls



#### **D. Construction Site Storm Water Runoff:**

1. Objective:  
The objective of the construction site storm water runoff program is to reduce the discharge of pollutants from construction sites into the storm sewer system.
  
2. Activities completed or in progress:  
Currently, the City has a storm water management ordinance in place to reduce the contamination of storm water from construction sites and has continued its emphasis on multiple BMP inspections per site during the course of construction. QCI renewal training has been completed for the City's construction site inspectors.  
  
The City is currently undergoing a major transition in software vendors. The MS4 anticipates that this will significantly improve plan review and inspection tracking.
  
3. General discussion:  
The City utilizes the Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas (Alabama Handbook) as its main reference and guide in its goal to reduce the discharge of pollutants from construction sites. All construction site operators in the project area are required by the storm water management ordinance and the SWMPP to acquire a City Land Disturbance Permit prior to land disturbance activities. As construction begins, construction sites will be monitored by an inspector to ensure compliance with the appropriate Best Management Practices, the site-specific storm water management plan, and the City's storm water ordinance. The scheduling of these visits coincides with each inspection conducted throughout the building process required by the building permit.
  
4. Status:  
Several years ago, the City changed how it conducts construction site storm water inspections by training the City's building inspectors to conduct BMP inspections in conjunction with building inspections. This has expanded the program to include all construction sites and also improve the documentation of inspections to an existing inspection documentation archive. The summary table below outlines the MS4's achievements this reporting year.
  
5. Strengths and weaknesses:  
A primary strength of this program is the MS4's coordination with the City's building inspection services. The cooperation increases the number of sites inspected and the frequency in which those sites are inspected. It also takes advantage of an existing inspection documentation archive that will improve the record keeping of these inspections. Another primary strength of this program is the ability for the City to place a hold on new building inspections or issue a stop work order based on the inadequacy of best management practices, which is an effective incentive for appropriate BMP implementation and maintenance.

6. **Assessment:**  
As reflected in the summary table below, the City has maintained a consistent construction site inspection schedule. In addition, the City is encouraged by the cooperative effort between the MS4 and the City's Building Department, as it continues to provide improvements in the Construction Site Storm Water Runoff Program.
7. **Proposed revisions:**  
Outside of ongoing efforts to improve procedures, coordination, and training with building inspection services, there are no revisions proposed.
8. **Measurable Goals:**

<b>Program Component</b>	<b>Description and Frequency</b>	<b>Completed</b>
Construction Site Inspections	Inspect Monthly	<u>179</u> Sites Remaining at end of FY 21/22 <u>1,436</u> Inspections Conducted
Complaints and Enforcement Actions	Address as Needed	<u>4</u> Complaints Received <u>3</u> Enforcement Actions
Review of Permit Applications	Review as Required	<u>323</u> Applications Submitted <u>323</u> Applications Permitted
Construction BMP Inspection Staff Training	Renew QCI Annually	<u>3</u> Staff with QCI/QCP Certification <u>0</u> New Staff Received QCI/QCP Certification <u>3</u> Staff Renewed QCI/QCP Certification this Permit Year
Program Evaluation	Evaluate Program Effectiveness Annually	<u>1</u> Review Performed

## **E. Post-Construction Site Storm Water Runoff**

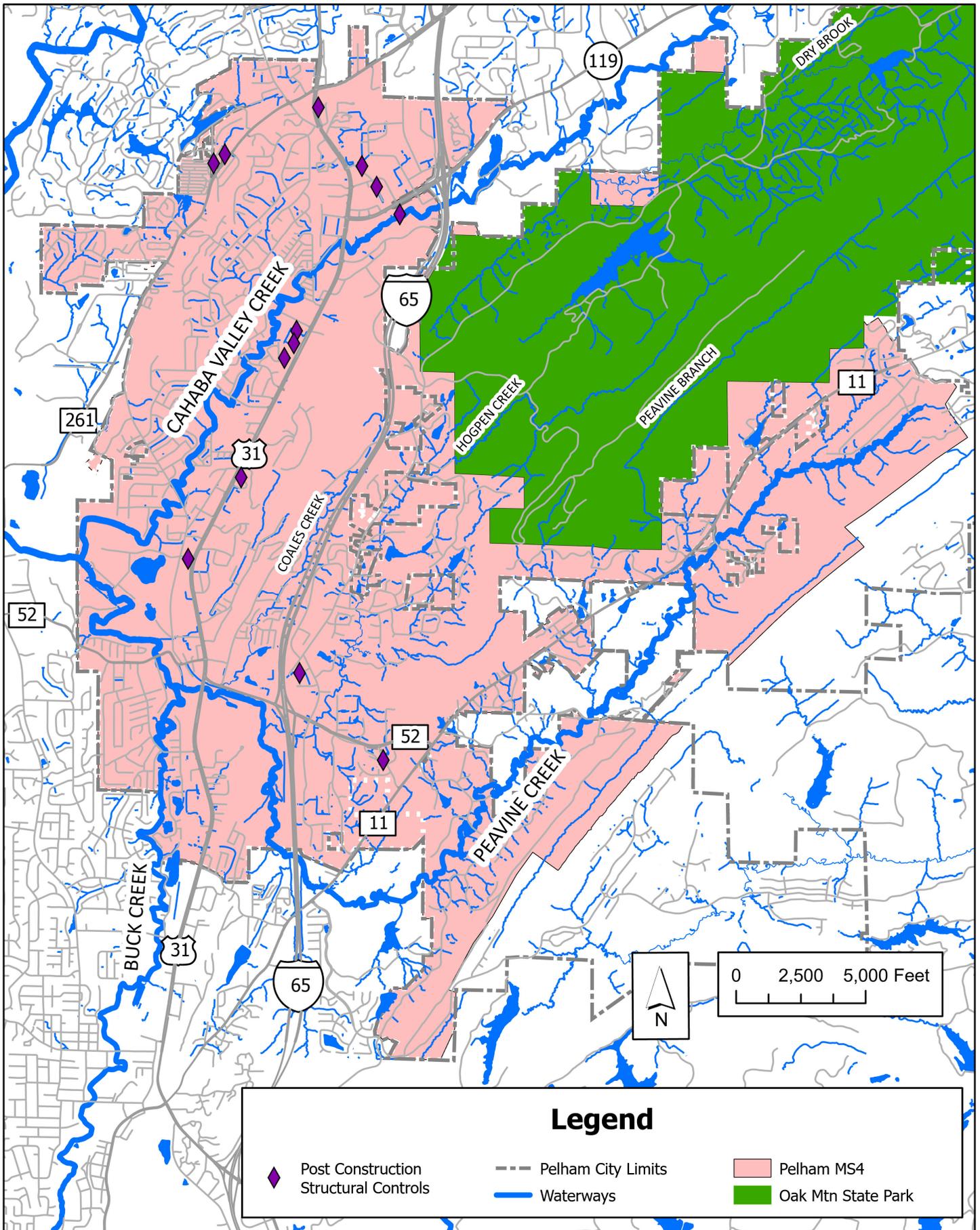
1. **Objective:**  
The objective of this program is to ensure the adequate provision for and proper operation of structural and non-structural controls for any given development within the MS4 such that adequate storm water management is maintained over the useful life of the property.
2. **Activities completed or in progress:**  
The City conducted 10 post-construction structural control inspections this past permit year. As a result of the inspections, all structural controls appeared to be in good working order. Other on-going activities include plan review of post-construction BMPs in accordance with the Alabama Handbook and the City's current subdivision regulations.
3. **General Discussion:**  
As discussed in the Construction Site Storm Water Runoff section of this report, the City requires all land disturbances to be permitted regardless of size. This permitting process requires a review of the proposed construction BMPs and post-construction BMPs by the City to ensure compliance with the Alabama Handbook and the City's subdivision regulations. The City anticipates revising the current ordinance to require the property owner of future post-construction structural controls to meet the self-inspection and documentation requirements within the permit. However, in the interim, the City is handling the inspection requirements. For additional procedures and requirements please refer to the SWMPP.
4. **Status:**  
With the exception of plan reviews in accordance with the Alabama Handbook and the City's current subdivision regulations and performing post-construction structural control inspections, it is anticipated that the City will begin revising the Stormwater Ordinance to address the inspection requirements as noted above in the coming year.
5. **Strengths and Weaknesses:**  
A primary strength of this program is the concurrent construction and post-construction review process, providing for efficient and effective plan review and incentive for developers to ensure adequate post-construction BMPs at the onset of construction.  
  
A weakness of this program at this time is the transition period between drafting, finalizing and adopting revised regulations and ordinances that are consistent with the SWMPP.
6. **Assessment:**  
The City is encouraged by the availability of GIS as well as the record drawing requirement for each development, which will greatly facilitate tracking of future post-construction controls.

7. **Proposed Revisions:**  
 As stated previously, the City is currently revising the appropriate regulations in order to effectively enforce several new components of this program. There were three additional sites added to the inventory during this past permit year. Both sites were inspected prior to receiving a certificate of occupancy, with post-construction site inspections to begin in FY23. There are currently 3 additional sites with structural controls that are anticipated to be added to the inventory for next reporting year.

8. **Measurable Goals:**

<b>Program Component</b>	<b>Description and Frequency</b>	<b>Completed</b>
Post-Construction BMP Inventory	Update Inventory as Needed	<u>10</u> Structural Controls <u>3</u> Structural Controls Added in FY22
Inspections by City	Inspect Post-Construction BMPs Annually	<u>10</u> Inspections Performed <u>0</u> NOV's Issued
Program Evaluation	Evaluate Program Effectiveness Annually	<u>1</u> Review Performed

# Figure 4: Post Construction Structural Controls



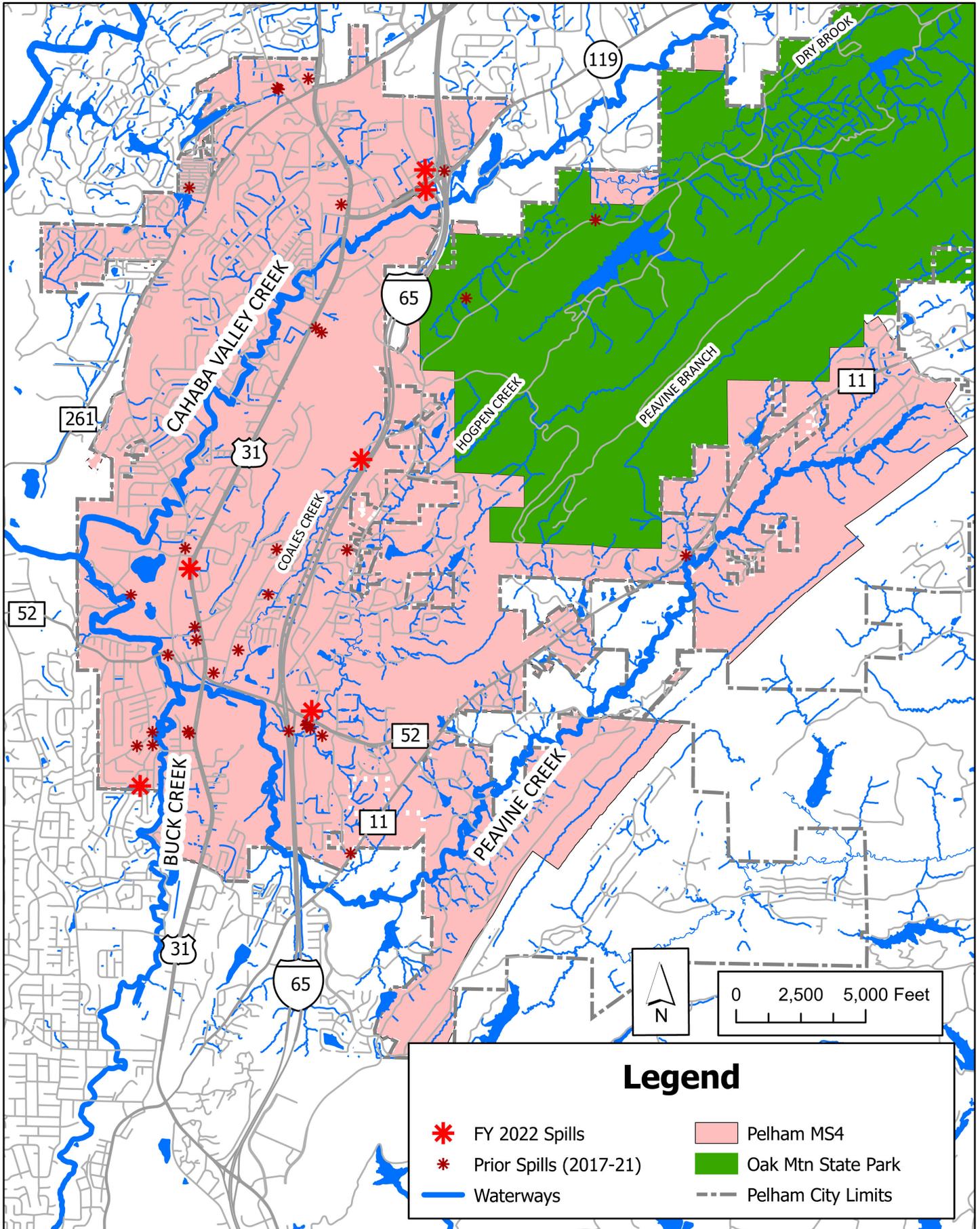
**F. Spill Prevention and Response:**

1. Objective:  
The objective of the spill prevention and response program is to prevent, respond, and contain spills that may discharge into the storm sewer system.
2. Activities completed or in progress:  
The City Fire Department's HAZMAT unit continues routine training and response to spills not only within the MS4 but within surrounding MS4s.
3. General discussion:  
As a first responder to spills within the MS4 and surrounding MS4s, the City Fire Department's HAZMAT unit is a highly trained and skilled unit in responding to spills of all types. The City coordinates closely with the Shelby County Emergency Management Agency in response to spills and inventorying of Tier II facilities that use, store, manufacture, or transport federally designated hazardous substances as required by Title III of the Superfund Amendment and Reauthorization Act (SARA). Tier II facilities are mandated to distribute Material Safety Data Sheets (MSDS) to the County EMA and City's Fire Department. These existing protocols facilitate spill response planning.
4. Status:  
With this now the twenty sixth year of operation under a MS4 Phase I permit, the MS4 is well coordinated with their respective county EMA and local first responders. The City's HAZMAT team responded to six spills within the MS4 this past permit year. Three of these spills were minor spills (five gallons or less). The other three spills were estimated between 10 to 20 gallons. All spills consisted of gasoline or diesel except for one minor spill of anti-freeze. All spills were responded to effectively by the HAZMAT team per the SOP included in the SWMPP.
5. Strengths and weaknesses:  
The primary strength of this program is the close relationship between the Shelby County EMA and the City's HAZMAT unit.
6. Assessment:  
The MS4 is pleased to state that all spills were contained to the maximum extent practicable. The City's HAZMAT unit is highly trained and specialized to contain these events.
7. Proposed revisions:  
No revisions are proposed at this time.

8. Measurable Goals

<b>Program Component</b>	<b>Description and Frequency</b>	<b>Completed</b>
Spill Response	Respond as Needed	<u>6</u> Spills within MS4 <u>6</u> Spills Responded to in MS4
HAZMAT Spill Response Training	Weekly SOP Training	<u>52</u> Training Events
Program Evaluation	Evaluate Program Effectiveness Annually	<u>1</u> Review Performed

# Figure 5: FY 2022 Spills



## **G. Good Housekeeping for Municipal Operations:**

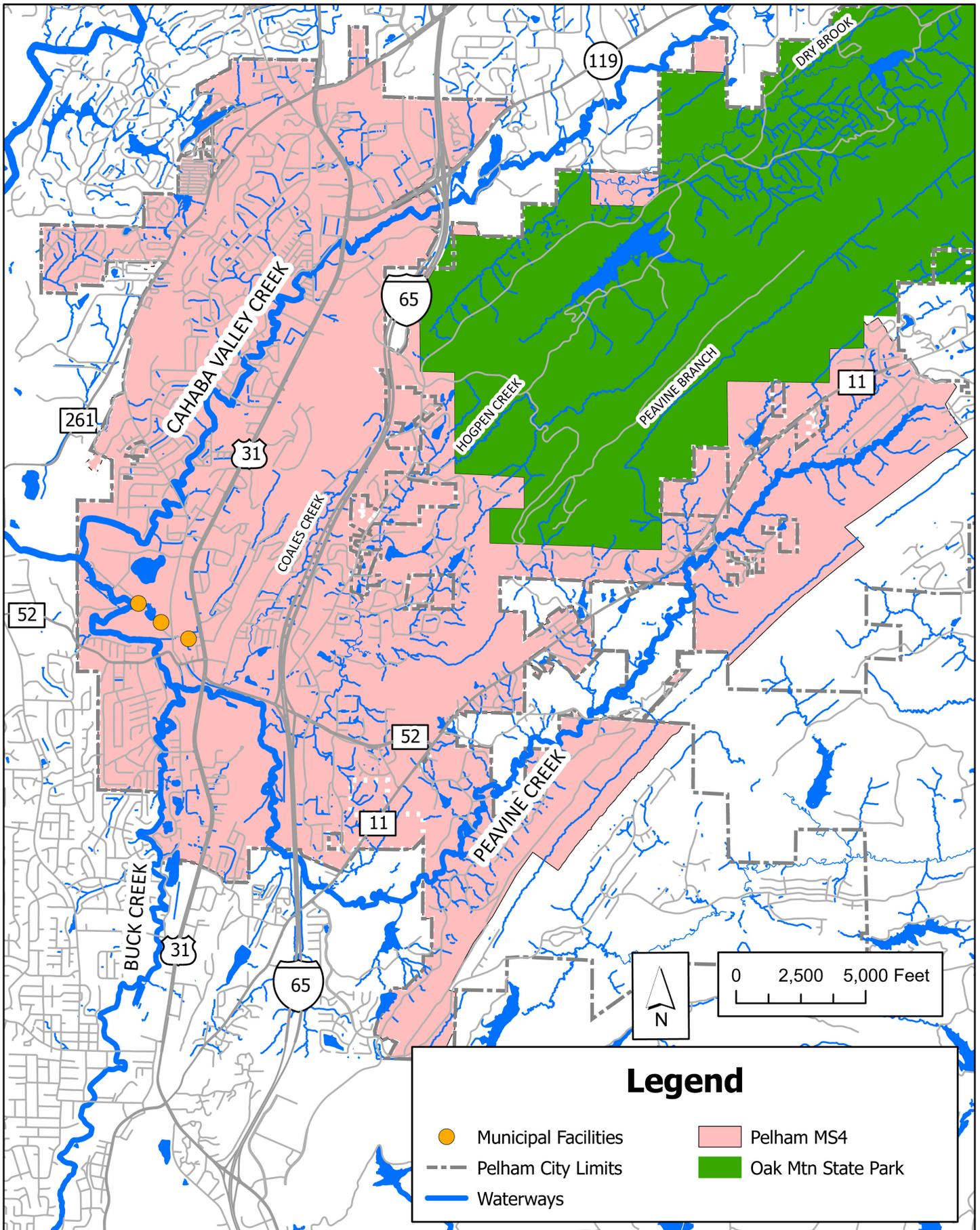
1. Objective:  
The objective of the municipal facilities program is to identify and control the flow of pollutants into storm water runoff from municipal operations such as fleet maintenance, litter control, street maintenance, and pesticide and fertilizer application.
2. Activities completed or in progress:  
As required by the drafting of the revised SWMPP, the MS4 inventoried potential municipal facilities in the previous permit year and inspected each of these facilities this permit year as required. The inventory may be found in the SWMPP. Additionally, the litter control program that the City has implemented for years was in place throughout this permit year. All roadway maintenance and improvement projects within the project area adhered to guidelines for sediment and erosions control BMPs. Currently, there are no floodway projects under construction in the permit area. A summary of activities can be found in the table below.
3. General discussion:  
The City has mitigated some potential risks from fleet maintenance by partnering with a neighboring MS4 that is more established in performing fleet maintenance activities. Although the facility that historically housed these activities is still included in the MS4's facility inventory, moving these fleet maintenance activities reduces the risk of this facility. Additionally, the MS4 continues to operate under the standard operating procedures (SOPs) for activities such as equipment washing or materials storage, among other activities to further mitigate potential pollutant sources. The MS4 consistently tracks roadway maintenance and litter control activities and coordinates with volunteer litter control efforts to facilitate efficient and effective implementation of the litter control component of this program.
4. Status:  
This Program is in good standing with the SWMPP and permit requirements. Additional time and resources have been allocated in the past permit year(s) to provide adequate training to City employees as well as develop SOPs for various activities that could impact storm water. The SOPs can be found in the SWMPP included within this report.
5. Strengths and weaknesses:  
A primary strength of this program is the self-evaluation the City performs on its municipal facilities, resulting in efficient inspections and constant accountability. An additional strength is the City's litter control program in general due to the strong incentive to keep the City clean and free from debris and litter.
6. Assessment:  
The MS4 is encouraged by the direction of this program with respect to record keeping and the development of SOPs and training events.

7. Proposed revisions:  
 No revisions are proposed at this time. This program will be evaluated annually to determine if any modifications are needed.

8. Measurable Goals:

<b>Program Component</b>	<b>Description and Frequency</b>	<b>Completed</b>
Municipal Facility Inventory	Update Inventory as Needed	<u>3</u> Facilities <u>0</u> Updates to Inventory
Municipal Facility Inspections	Inspection each Facility Annually	<u>3</u> Inspections Performed
City Road Work BMPs	Inspect City Projects Monthly	<u>0</u> Current Projects <u>0</u> Inspections Performed
Litter Control	Litter Control is On-going	<u>4.87</u> Tons/yr <u>5,125</u> Man Hours/yr
Flood Mgmt. Project Inventory	Update Inventory as Needed	<u>0</u> Project under Construction
Development of SOPs	Develop and Update as Needed	<u>5</u> SOPs Developed <u>0</u> Updates to SOPs
Municipal Facility Staff Training	Train Employees Annually	<u>1</u> Training Event Performed
Program Evaluation	Evaluate Program Effectiveness Annually	<u>1</u> Review Performed

# Figure 6: Municipal Facilities



## H. Pesticide, Herbicide, and Fertilizer Application:

1. Objective:

The objective of the pesticide, herbicide, and fertilizer application program is to implement practices to reduce, to the MEP, the contamination of storm water runoff from the application, storage, or disposal of these products.

2. Activities completed or in progress:

The City of Pelham achieves the objectives of the Pesticide, Herbicide, and Fertilizer Program through responsible application practices, chemical-use reduction, and distribution of public education materials. The Pesticide, Herbicide, and Fertilizer Program is dedicated to ensuring safe and responsible application in accordance with State law. In addition, this program is committed to reducing pesticide and herbicide application by implementing mowing practices within the project boundary. Also, cooperative efforts with the Shelby County MS4 have resulted in gaining informative resources, made available to the public through the City of Pelham's website, that explain how fertilizers affect water quality and provide the public with tips for responsible fertilizer application. The City has previously generated an inventory of City owned PHFs and PHF storage facilities and performed an inspection of this facility this permit year to ensure proper storage of such chemicals.

The MS4 has maintained one potential high PHF usage area, the City Park. The MS4 will continue to evaluate and update this inventory. Additionally, the City employees that are certified applicators have received the required annual training.

3. General discussion:

The Professional Service Law of 1940, the Alabama Pesticide Law of 1971, and the Custom Pesticide Applicator Law of 1971 regulate the sale, distribution, transportation, and application of pesticides within the state of Alabama. The Alabama Commissioner of Agriculture and Industries is responsible for administering and enforcing these laws, which forbid the use, handling, or disposal of pesticides in a manner that would cause harm to humans, animals, or the environment. In addition, as of October 21, 1977, state certification is required for all persons applying pesticides.

The City of Pelham currently has 1 State certified applicator on staff. This employee is in charge of implementing the City's annual herbicide and pesticide program.

As indicated in the summary table below, the City consistently tracks the application of pesticide, herbicide, and fertilizers as well as mowing practices within the project boundary. The advancements in record-keeping that have been made have substantially enhanced the MS4's ability to track, document, and assess the progress of the Pesticide, Herbicide, and Fertilizer Program.

4. Status:

The City is currently following the state guidelines as outlined above. Through

active coordination with existing administrative infrastructure, the MS4 is maintaining consistent, environmentally responsible application of pesticide, herbicide, and fertilizer. In addition, the use of current green space mowing programs within the MS4 allows the City to reduce the amount of chemical application within the project boundary as reflected in the summary table below.

5. Strengths and weaknesses:

A key strength of this program is the ability to rely on the State’s guidelines on the application of these products and the inherent consistency throughout the project area by doing so. Additionally the pesticide, herbicide, and fertilizer program is strengthened by the MS4’s ability to coordinate with ongoing green space management practices, enabling the City to track and target activity. In addition, the improvements to record-keeping allow the MS4 to track and assess application rates and non-chemical solution efforts within the pesticide, herbicide, and fertilizer program. An additional strength that the MS4 anticipates is the potential for the GIS spatial database to serve as a powerful tool for targeting areas within sensitive drainage basins with educational materials.

6. Assessment:

The City is encouraged by the improvements that have been made in documentation of green space management activity and how it has enabled the MS4 to more effectively direct and assess the pesticide, herbicide, and fertilizer program.

7. Proposed revisions:

There are no proposed revisions at this time.

8. Measurable Goals:

<b>Program Component</b>	<b>Description and Frequency</b>	<b>Completed</b>
PHF Storage Facility Inventory	Inventory Annually	<u>1</u> PHF Storage Facility
PHF Storage Facility Inspection	Inspect Annually	<u>1</u> PHF Storage Facility Inspected
PHF Usage	Track PHF Usage	<u>130</u> Gallons of Pesticide Applied <u>60</u> Gallons of Herbicide Applied <u>0</u> Gallons of Fertilizer Applied
Mowing Practices	Track Mowing Practices	<u>2,650</u> Man Hours/yr
Inventory and Prioritization of High-Use Areas	Inventory and Update as Needed	<u>0</u> Locations Added to Inventory
Development of SOP	Develop and Update as Needed	See Part III.G Measurable Goals
City Employee Training	Train City Employees Annually	<u>1</u> Employees Received Annual Training
Program Evaluation	Evaluate Program Effectiveness Annually	<u>1</u> Review Performed

## **I. Oils, Toxics, and Household Hazardous Waste Control:**

1. Objective:  
The objective of the oils, toxics, and household hazardous waste control program is to promote, publicize, and facilitate the proper management and disposal of these substances.
2. Activities completed or in progress:  
Currently, the City relies heavily on existing educational materials that are distributed at several of the City's facilities that address responsible disposal of oil and hazardous waste. Also, the City website makes information available to the public that explains the impact automotive fluids have on water quality and how to prevent it. In accordance with the SWMPP and the permit, the City has produced a list of local facilities that accept and recycle used oil to facilitate and encourage recycling by the general public. This list has been posted on the City's website. Additionally, the City continued training efforts for City employees on this subject this year.
3. General discussion:  
The education program dedicated to promoting, publicizing, and facilitating the proper management and disposal of used oil and household hazardous wastes, is detailed in Part II.I. of the SWMPP.
4. Status:  
The City is currently meeting their obligations under the terms of this program as described in the SWMPP. The City continues to maintain a list of used oil collection facilities throughout the City that is available on the City's website.
5. Strengths and weaknesses:  
The primary strength of this program is the close relationship between the MS4 and the Shelby County Landfill. An additional strength that the MS4 anticipates is the potential for the GIS spatial database, to serve as a powerful tool for targeting areas within sensitive drainage basins with educational materials.
6. Assessment:  
The Oil and Household Hazardous Waste and programs like it that rely heavily on public education efforts benefit from the City's cooperative partnerships and ability for creative outreach. The impact of these efforts is now more apparent with the improved documentation and tracking procedures that quantify the amount of distributed educational material. In addition, the dry-weather screening program has not revealed any incidents of improper disposal of used oil or household hazardous wastes. The MS4 is encouraged with the current direction of the Oil and Household Hazardous Waste Program.
7. Proposed revisions:  
No revisions are proposed at this time.

8. Measurable Goals:

<b>Program Component</b>	<b>Description and Frequency</b>	<b>Completed</b>
Development of Additional Public Education Materials	Develop as Needed Annually	<u>0</u> Additional Materials Needed/Developed
Posting of Used Oil Collection Facilities	Update as Needed Annually	<u>1</u> List Updated/Posted
City Employee Training	Annual Training	<u>1</u> Training Event Performed
Program Evaluation	Evaluate Program Effectiveness Annually	<u>1</u> Review Performed

**J. Industrial Storm Water Runoff:**

1. Objective:  
The objective of the industrial storm water runoff program is to identify and control pollutants in storm water discharges to the storm sewer system from industrial facilities.
  
2. Activities completed or in progress:  
All of the inventoried industrial inspection sites have been incorporated into the GIS spatial database as shown in the Industrial Facilities figure included within the SWMPP. For this past permit year, the MS4 performed routine inspections as required for all of the industrial facilities within the MS4 and reviewed each known NPDES permitted facility's discharge monitoring reports (DMRs) to ensure compliance. One facility was noted to be out of compliance with their ADEM permit for a short period of time. The non-compliance was an exceedance of the oil and grease during a routine sampling event due to an isolated oil spill that has since been abated. The MS4 will continue to monitor all NPDES permitted facilities through DMR reviews and respond as needed.

The facility inventory was also updated as a result of several businesses moving outside of the City or constructing new facilities that significantly limit operations from contacting stormwater. This updated inventory is reflected in the most recently updated SWMPP included herein.

3. General discussion:  
A resource for updating the list of industrial facilities throughout the MS4 is the use of the City's business license code list. From this list the MS4 has identified codes that generally consist of entities in need of inspection as they relate to storm water. The MS4 also keeps its list of Tier II facilities current by coordinating with both the City's Fire Department and the Shelby County EMA. As stated previously, Tier II facilities are required to issue annual reports under the Emergency Planning and Community Right-to-Know Act (EPCRA) to the Shelby County EMA and local fire department (Pelham Fire). The new permit requires provisions for ensuring that NPDES permitted facilities within the MS4 maintain compliance with their respective permit. As discussed in the SWMPP, the City has made provisions to review each facility's DMRs over the past year as part of meeting this requirement so that the City may allocate more resources to the facilities without an NPDES permit but requiring inspection. The procedures for inspections follow those presented in the SWMPP.
  
4. Status:  
The results of the City's industrial program activities are detailed in the summary table below.
  
5. Strengths and weaknesses:  
A key strength to this program is the City's knowledge of the businesses within their jurisdiction and the interdepartmental coordination between the City departments to maintain the most current facility list possible. A primary weakness in this program is the lack of standardized training to allow for

additional personnel to conduct industrial inspections.

6. Assessment:

The MS4 is encouraged by the use of the City’s business license codes to track industrial and high risk commercial facilities within the MS4 as well as feedback from ADEM during the recent audit. This improvement alone will allow for a much more efficient method of updating the facility list in the future. The City is also encouraged by the ability to review the DMRs required to be submitted to ADEM for each NPDES permitted facility within the MS4 so that the City can divert additional resources to those facilities without an NPDES permit.

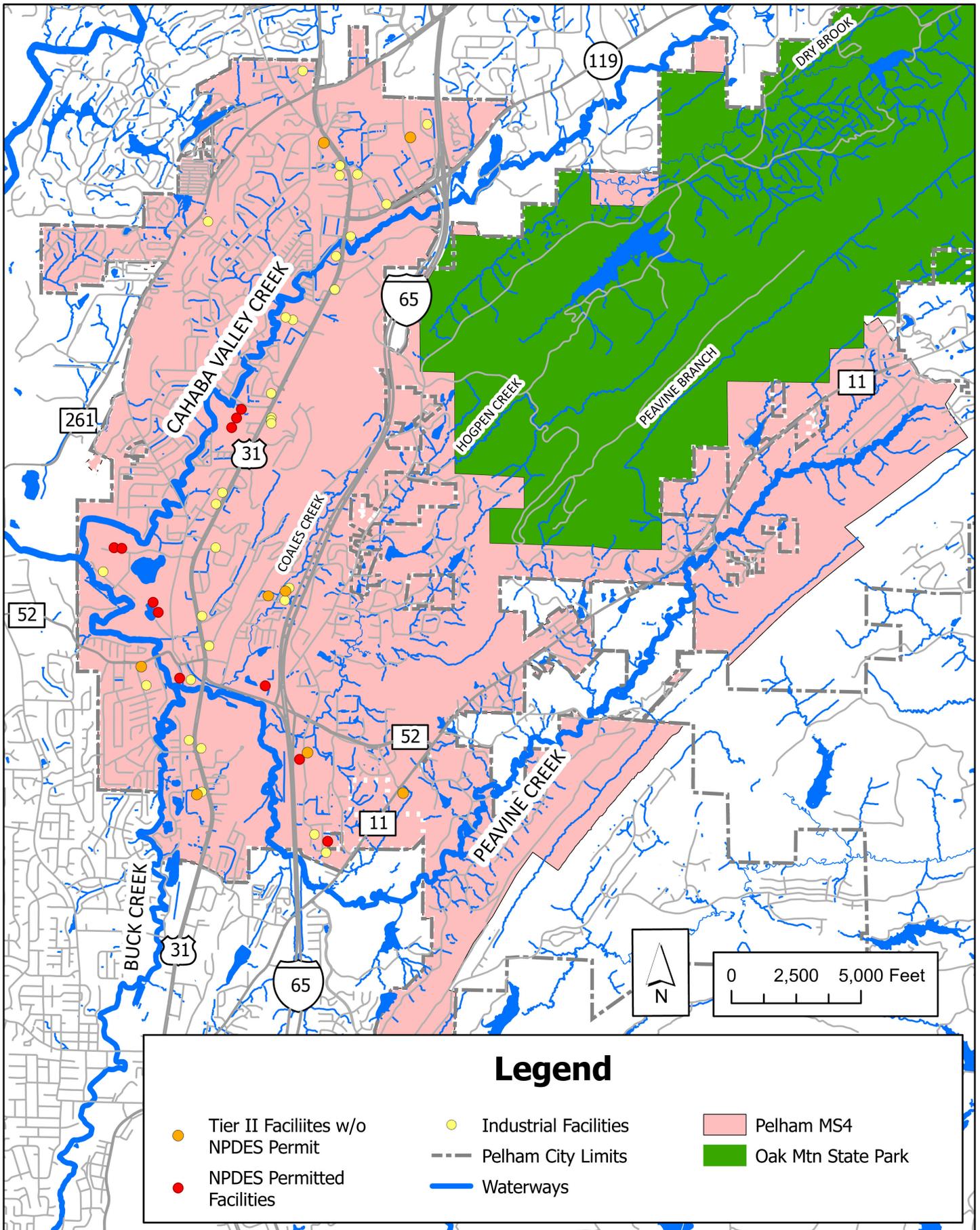
7. Proposed revisions:

There are no revisions proposed to the Industrial Storm Water Runoff Program at this time.

8. Measurable Goals:

<b>Program Component</b>	<b>Description and Frequency</b>	<b>Completed</b>
Facility Inspections	Inspect Annually	<u>40</u> Facilities Inspected
Review Data of NPDES Permitted Facilities	Review Facilities’ DMRs Annually	<u>11</u> NPDES Permitted Facilities <u>11</u> DMR Reviews Performed <u>0</u> Facilities out of compliance
Industrial Inspection Staff Training	Annually	<u>1</u> Training Event
Update Facility List and Map	Update Annually as Needed	<u>3</u> Sites Removed <u>0</u> Additions
Industrial Facility Enforcement Action	As needed	<u>0</u> Notice of Violation Issued <u>0</u> Monitoring Performed
Program Evaluation	Evaluate Program Effectiveness Annually	<u>1</u> Review Performed

# Figure 7: Industrial Facilities



## **K. Monitoring Programs**

1. Objective:  
The objective of the monitoring program is to provide the data necessary to assess the effectiveness and adequacy of control measures implemented under the SWMPP.
  
2. Activities completed or in progress:  
The MS4 has performed its sixth year of Wet Weather Sampling per the SWMPP, which included four sampling events at all three wet weather sampling locations. The results of these sampling events can be found in Appendix A. The MS4 has also continued to place an increased focus on sampling of impaired streams within the MS4 boundary that have ADEM approved TMDLs. In-stream sampling of pathogen impaired receiving waters upstream of the Cahaba River was performed on Cahaba Valley Creek and Buck Creek. During this past permit year, each stream was sampled sufficiently to calculate one summer and one winter monthly geomean at both an upstream and downstream location within the MS4. Sampling locations were selected with the intent of understanding water quality entering and leaving the MS4 for both streams.

In addition to the sampling completed this permit year, USGS is continuing to perform flow measurements at regular intervals to establish a gauge rating at several wet weather sampling locations. The MS4 anticipates utilizing and including this data in upcoming annual reports as it becomes available.

3. General discussion:  
As anticipated over the last several years, the 2015 NPDES Permit places a much greater emphasis on in-stream sampling of impaired streams within the MS4 or directly affected by the MS4. This includes both Wet Weather Monitoring and TMDL Monitoring programs as defined in the SWMPP. Wet Weather sampling sites are in-stream sampling sites that require sampling streams during elevated water levels due to storm events. TMDL Monitoring sites are in-stream sampling sites located on impaired streams within the MS4 or streams that drain to impaired streams such as the Cahaba River. To the MS4's benefit, the MS4 has selected some common sites to perform both Wet Weather and TMDL sampling. By holding sampling locations constant, much more water quality data is gathered at these stream locations during a wide range of weather events. For additional information regarding the MS4's plan for these programs, please see the City's SWMPP.
  
4. Status:  
As stated above, the MS4 has completed two rounds of TMDL sampling this past year. Additionally, the MS4 has also conducted its sixth year of Wet Weather monitoring as required by the permit and described in the SWMPP. The MS4 has continued to engage the USGS to maintain manual flow gauge stations at the City's Wet Weather Monitoring sites to provide an increased understanding of watershed characteristics and the ability to calculate pollutant loadings for various sampling events. These stations and developed ratings will provide the MS4 with the ability to produce pollutant loadings from the MS4 in the future if needed.

5. Strengths and weaknesses:

The primary strength of this program is the quality control in the sampling process. All field technicians adhere to detailed sampling procedures which were prepared specifically for this project. In addition, the MS4 benefits from proactive administration with interest in not only meeting permit requirements, but making lasting contributions to water quality. An additional strength of this program is the City's relationships with surrounding MS4s which provides for sharing of data and reporting of problems discovered due to sampling.

6. Assessment:

The results of the Wet Weather Sampling and TMDL Monitoring are presented in Appendices A and B, respectively. With regard to TMDL sampling results, the Winter sampling pathogen geomean levels were well below the Department's criteria levels along both Buck Creek and Cahaba Valley Creek. Therefore, no investigative sampling was initiated. During the Summer sampling, pathogen geomeans for each site were higher than the Department's water quality criteria for the stream's applicable water use classification. However, for Cahaba Valley Creek, the Summer pathogen geomean leaving the MS4 was lower than that coming into the MS4. This indicates that the MS4 was not directly contributing to the pathogen and nutrient impairments and therefore no investigative sampling was initiated as a result of the Summer sampling series for Cahaba Valley Creek. Results along Buck Creek indicated geomean levels higher than the Department's established criteria levels at both sampling sites. However, the pathogen geomean at the downstream stie was marginally higher than that entering the MS4 and therefore investigative sampling was not performed as a result of this date either.

The MS4 is encouraged by the direction of this program, particularly in regards to continued coordination with USGS and the information the MS4 will be able to gather from their work.

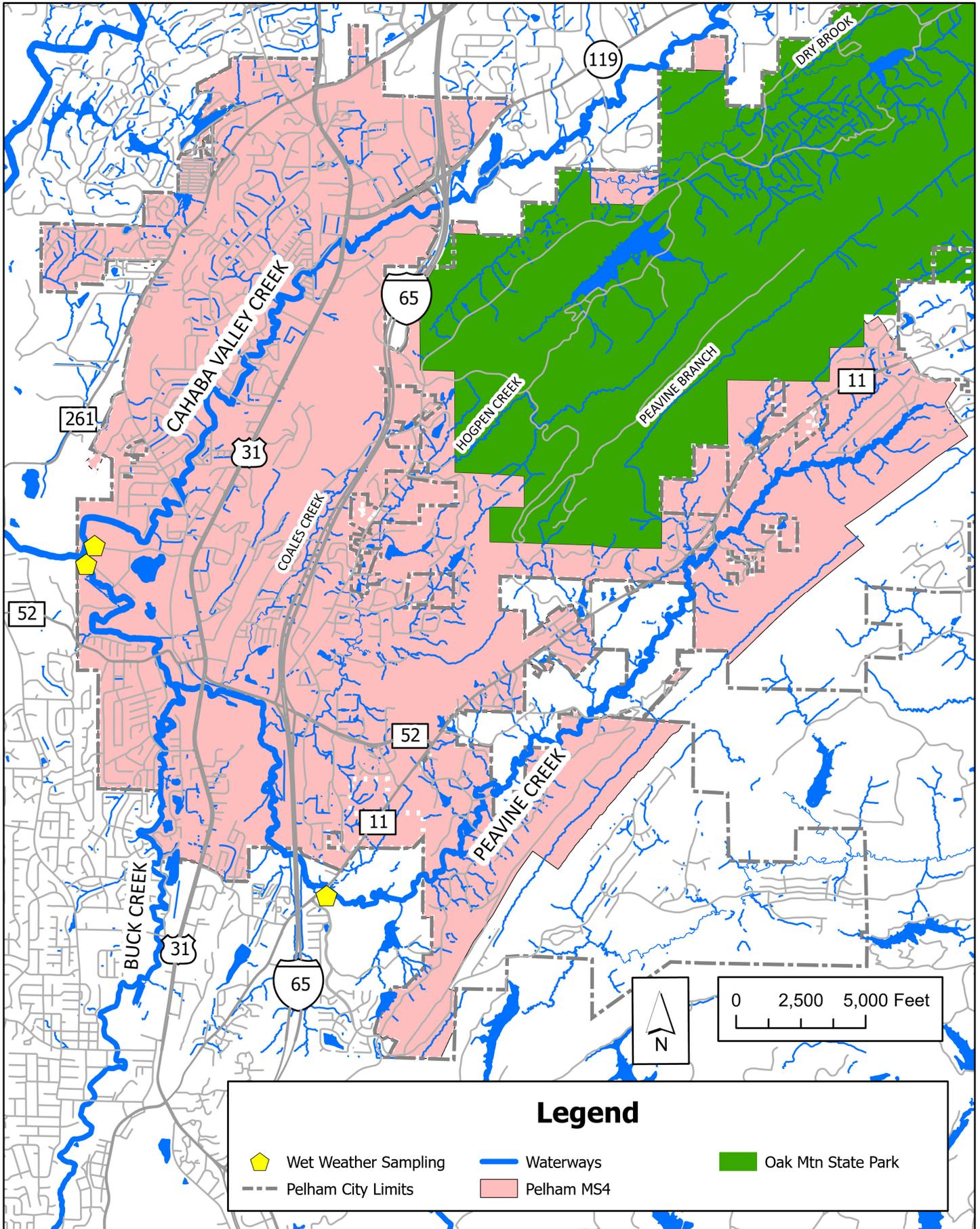
7. Proposed revisions:

There are no proposed revisions at this time.

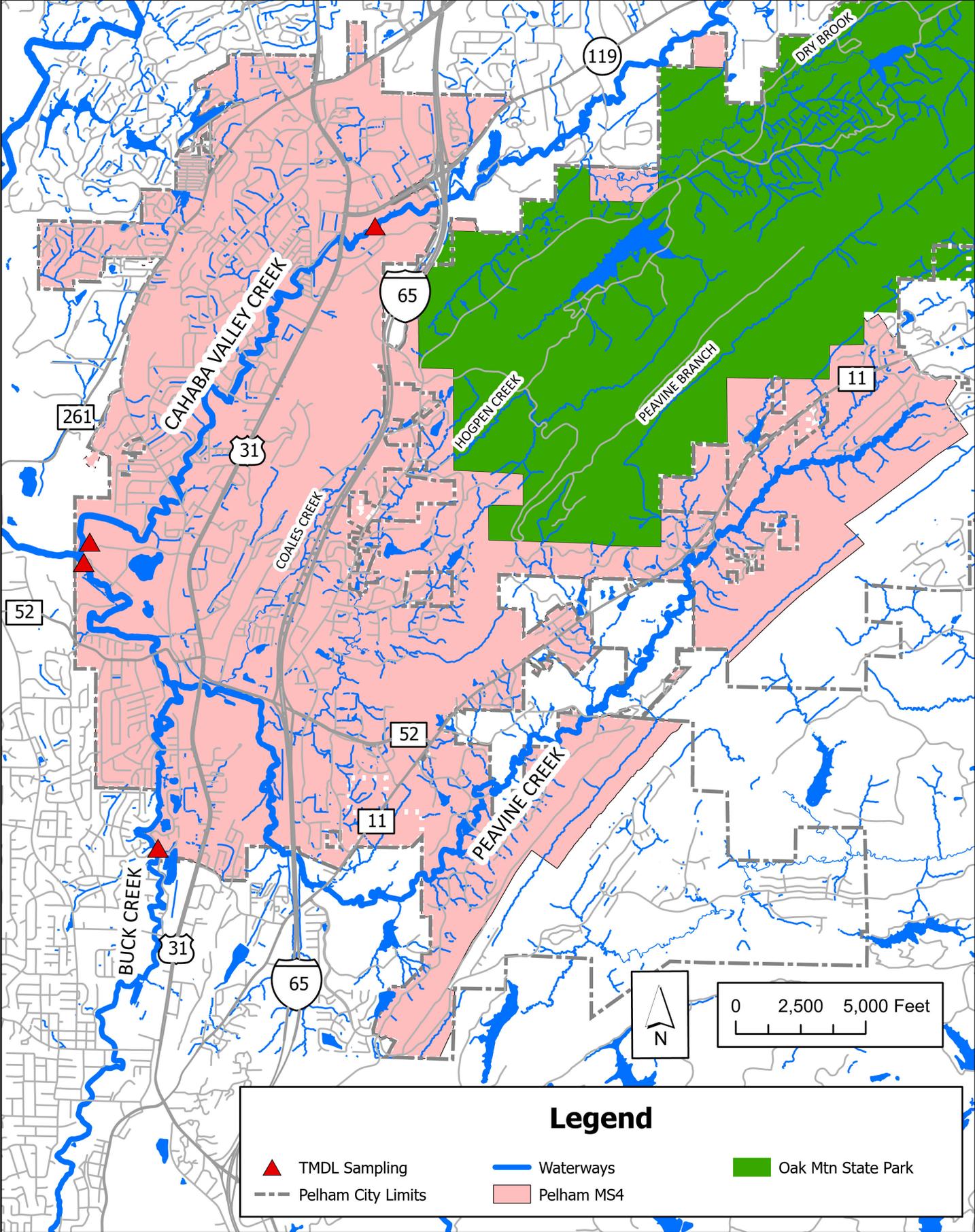
8. Measurable Goals:

<b>Program Component</b>	<b>Description and Frequency</b>	<b>Completed</b>
Wet Weather Sampling	2 Sites - Quarterly Sampling 1 Site – Semi-Annually Sampling	Quarterly Sites - <u>4</u> Sampling Rounds Performed Semi-Annual Sites – <u>4</u> Sampling Rounds Performed
TMDL Sampling	Semi-Annually Sampling	<u>2</u> Sampling Rounds Performed
TMDL Investigative Sampling	Investigative Sampling as Needed	<u>0</u> Investigative Sampling Rounds Performed
Program Evaluation	Evaluate Program Effectiveness Annually	<u>1</u> Review Performed

# Figure 8: Wet Weather Sampling Sites



# Figure 9: TMDL Sampling Sites



## Part IV: Proposed SWMPP Modifications

Several modifications to the SWMPP were made that included updating several appendices, the post construction structural control inventory and associated map, and the industrial facility inventory and map. The MS4 will continue to update and revise the SWMPP as needed to improve the overall effectiveness of the stormwater program.

## Part V: Fiscal Analysis

All of the costs associated with fulfilling the requirements of the storm water management permit have been paid out of the general operating budget of the City of Pelham. There were additional emergency storm drain repair costs associated with the October 6, 2021 flooding event that are excluded from the “Storm Drain Maintenance” category below. A summary of costs associated with the City of Pelham’s storm water management program compliance is included below.

Administrative, Engineering, Public Education, Etc...	\$	108,832
Construction Sector	\$	60,500
PHFs and Mowing Sector	\$	39,000
Litter Control & Oils/Toxics Disposal	\$	11,000
Monitoring, Screening, & Inspections	\$	18,475
USGS Agreement	\$	6,250
Storm Drain Maintenance	\$	82,070.22
<b>TOTAL</b>	<b>\$</b>	<b>326,127.22</b>

**APPENDIX A**

Wet Weather Sampling Results  
&  
Representation

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City of Pelham  
MS4 Stormwater Management Program  
Cumulative Wet Weather Sampling Results

Peavine Creek at Hwy. 11																			
Date	Year	BOD (mg/L)	TSS (mg/L)	TDS (mg/L)	Ammonia (mg/L)	TKN (mg/L)	NO <sub>2</sub> /NO <sub>3</sub> (mg/L)	Total N (mg/L)	Total P (mg/L)	O & G (mg/L)	pH (s.u.)	Temperature °F	DO (mg/L)	Conductivity (µS/cm)	Hardness (mg/L)	Turbidity (NTU)	COD (mg/L)	E. Coli (MPN/100 mL)	Water Level <sup>1</sup> (ft)
2/27/2017	2	<2.00	7	82	<0.15	<0.15	0.07	0.07	<0.02	<5	7.06	53.0	10.40	75	16	10.1	<20	298	-
6/15/2017	2	<2.00	16	58	<0.16	<0.16	0.06	0.06	<0.02	<5	7.90	N/A	8.33	55	34	7.7	15	660	-
6/29/2017	2	<2.00	33	46	<0.16	<0.16	0.06	0.06	0.17	<5	6.96	71.8	8.13	54	34	29.0	<20	930	-
8/22/2017	2	7.20	39	64	0.86	0.86	0.10	0.96	0.14	<5	7.12	79.6	6.88	83	51	39.5	46	6870	7.36
6/25/2018	3	3.00	79	64	0.58	1.44	0.23	1.67	0.14	<5	7.20	76.6	7.60	83	27	62.1	41	4610	7.50
7/31/2018	3	3.51	228	134	0.85	1.14	0.24	1.38	0.43	<5	7.55	76.8	7.35	117	36	356.0	53	15500	7.35
8/9/2018	3	4.16	137	78	0.85	0.86	0.16	1.02	0.14	<5	7.38	76.0	7.52	86	31	103.0	29	10700	7.75
11/1/2018	4	7.71	43	144	0.56	0.56	0.02	0.58	1.67	<5	7.31	64.4	5.86	164	47	43.6	52	20100	8.00
4/25/2019	4	<2.00	5	38	<0.14	<0.14	<0.14	0.08	<0.02	<5	7.08	65.3	8.70	50	16	6.1	<20	260	7.35
5/9/2019	4	6.25	163	70	0.57	1.42	0.13	1.55	0.04	<5	7.32	69.5	8.23	88	33	242.0	<20	2600	6.87
10/7/2019	4	4.90	58	220	0.85	1.15	0.01	1.16	0.10	<5	7.34	73.4	4.64	347	188	62.9	<20	950	6.31
11/7/2019	5	2.00	10	72	<0.14	0.29	0.08	0.37	0.03	<5	6.86	59.5	8.84	121	55	10.2	24	200	6.86
12/10/2019	5	<2.00	2	310	0.29	0.87	1.56	2.43	<0.02	<5	7.92	60.1	9.55	360	172	3.1	30	50	6.87
2/10/2020	5	<2.00	38	10	0.29	0.59	0.14	0.73	<0.02	<5	7.57	56.0	9.88	49	34	47.9	27	950	7.53
3/31/2020	5	3.38	132	90	0.28	0.85	0.13	0.98	0.08	<5	7.20	61.6	9.18	67	34	149.0	60	1350	7.57
6/19/2021	6	2.88	52	144	0.28	2.49	0.08	2.57	0.13	<5	6.93	63.8	9.05	60	21	21.5	51	500	7.20
6/19/2021	6	<2.00	32	52	0.28	0.29	0.08	0.37	0.04	<5	7.07	71.8	7.66	83	68	31.0	174	4300	6.44
8/11/2021	6	<2.00	19	54	<0.14	<0.14	0.11	0.11	<0.02	<5	6.92	75.6	7.77	68	51	19.6	20	1200	7.28
8/19/2021	6	2.03	186	84	<0.14	1.12	0.10	1.22	0.18	<5	6.99	76.6	7.65	65	51	139.0	59	22400	7.10
12/6/2021	7	4.66	698	102	<0.14	1.65	0.13	1.78	0.79	<5	6.76	60.7	8.78	93	35	892.0	102	18420	6.75
3/15/2022	7	<2.00	25	80	<0.14	0.55	0.10	0.65	0.04	<5	6.53	56.0	10.13	61	51	27.0	<20	300	6.95
4/5/2022	7	4.73	733	82	0.55	2.55	0.07	2.62	0.79	<5	6.47	60.6	9.29	53	51	425.0	73	4650	7.98
7/18/2022	7	<2.00	71	58	0.29	0.57	0.15	0.72	0.02	<5	7.39	77.4	7.84	91	51	50.1	20	2750	6.45
Average		3.32	122	93	0.38	0.87	0.17	1.01	0.22	5	7.17	67.6	8.23	103	51	120.8	43	5241	6.24

- Notes:  
1. Data from USGS not available at time of sampling.  
2. <-> represent laboratory testing method's detection limits.

City of Pelham  
MS4 Stormwater Management Program  
Cumulative Wet Weather Sampling Results

Buck Creek at Police Firing Range																			
Date	Year	BOD (mg/L)	TSS (mg/L)	TDS (mg/L)	Ammonia (mg/L)	TKN (mg/L)	NO <sub>2</sub> /NO <sub>3</sub> (mg/L)	Total N (mg/L)	Total P (mg/L)	O & G (mg/L)	pH (s.u.)	Temperature °F	DO (mg/L)	Conductivity (µS/cm)	Hardness (mg/L)	Turbidity (NTU)	COD (mg/L)	E. Coli (MPN/100 mL)	Water Level <sup>1</sup> (ft)
2/27/2017	2	<2.00	5	230	<0.15	0.30	3.55	3.85	0.07	<5	7.86	56.1	10.03	326	99	3.3	<20	688	-
6/15/2017	2	<2.00	18	160	0.61	1.60	2.46	4.06	0.07	<5	7.92	N/A	8.48	247	140	14.9	26	4880	5.80
6/29/2017	2	<2.00	8	204	<0.16	<0.16	1.55	1.55	0.18	<5	7.62	73.4	8.03	280	154	9.6	<20	790	6.80
8/22/2017	2	3.90	5	256	0.58	0.86	2.85	3.70	<0.02	<5	7.78	78.6	7.64	375	190	5.1	19	1500	5.34
6/25/2018	3	<2.00	5	276	0.58	1.15	3.10	4.25	<0.02	<5	7.98	78.1	8.13	415	150	3.6	<20	90	4.30
7/31/2018	3	3.63	25	206	0.58	0.85	1.82	2.67	0.11	<5	7.91	76.2	8.04	289	26	15.4	<20	1160	4.10
8/9/2018	3	2.45	3	248	0.85	0.85	4.18	5.03	0.12	<5	7.75	78.4	7.63	379	145	4.2	25	560	4.50
9/5/2018	3	<2.00	8	308	0.58	0.86	3.79	4.65	0.04	<5	7.90	75.2	7.66	454	170	3.0	42	540	4.10
11/1/2018	4	5.11	6	332	0.28	0.28	3.81	4.09	0.04	<5	7.87	66.5	8.15	399	121	5.5	52	7220	-
4/25/2019	4	<2.00	6	178	<0.14	0.31	<0.14	2.63	0.04	<5	7.73	65.7	8.67	265	119	4.2	<20	460	5.00
5/9/2019	4	5.39	5	232	0.28	1.14	1.50	2.64	<0.02	<5	7.93	69.7	8.50	361	139	5.4	<20	1180	4.90
10/7/2019	4	<2.00	3	320	0.28	1.43	3.54	4.97	0.06	<5	7.71	74.4	7.36	438	171	3.1	<20	50	3.85
11/7/2019	5	2.01	3	258	<0.14	0.57	3.13	3.70	0.04	<5	8.17	63.8	9.02	383	174	2.7	47	1150	-
12/10/2019	5	<2.00	2	106	<0.14	0.87	0.05	0.92	<0.02	<5	7.12	59.0	9.33	93	43	6.0	<20	200	4.70
2/10/2020	5	<2.01	10	86	0.29	0.59	0.50	1.09	<0.02	<5	7.91	56.1	10.12	188	120	7.9	<20	275	6.00
3/31/2020	5	2.50	12	210	0.28	0.28	1.00	1.28	0.04	<5	7.79	62.4	9.10	293	171	9.5	42	480	5.75
3/31/2021	6	2.70	28	146	1.11	5.53	0.89	6.42	0.10	<5	7.72	64.6	8.94	190	89	12.2	25	800	6.20
6/19/2021	6	<2.00	22	156	0.28	0.29	1.90	2.19	0.07	<5	7.85	73.6	8.03	271	150	12.5	<20	3400	5.16
8/11/2021	6	<2.00	8	240	<0.14	0.28	1.78	2.06	<0.02	<5	7.63	74.8	8.02	337	188	5.8	<20	150	4.90
8/19/2021	6	<2.00	3	260	<0.14	0.84	2.91	3.75	0.03	<5	7.83	76.4	7.99	331	210	3.0	62	380	4.50
12/6/2021	7	<2.00	33	138	0.28	0.28	1.87	2.15	0.07	<5	7.12	62.3	8.74	206	72	26.0	39	22400	5.45
3/15/2022	7	<2.00	8	190	<0.14	1.10	1.33	2.43	0.05	<5	7.29	57.0	10.69	239	140	6.0	<20	900	5.50
4/5/2022	7	4.21	118	74	0.28	0.85	0.46	1.31	0.17	<5	6.94	61.9	9.09	160	100	75.0	71	4650	8.70
7/18/2022	7	<2.00	34	140	0.29	0.57	1.97	2.54	0.08	<5	7.68	79.3	7.92	245	150	23.6	<20	5850	4.80
Average		2.58	16	206	0.36	0.91	2.09	3.08	0.06	5	7.71	68.8	8.55	299	135	11.1	30	2488	5.25

Notes:  
1. Data from USGS not available at time of sampling.  
2. <,> represent laboratory testing method's detection limits.

City of Pelham  
MS4 Stormwater Management Program  
Cumulative Wet Weather Sampling Results

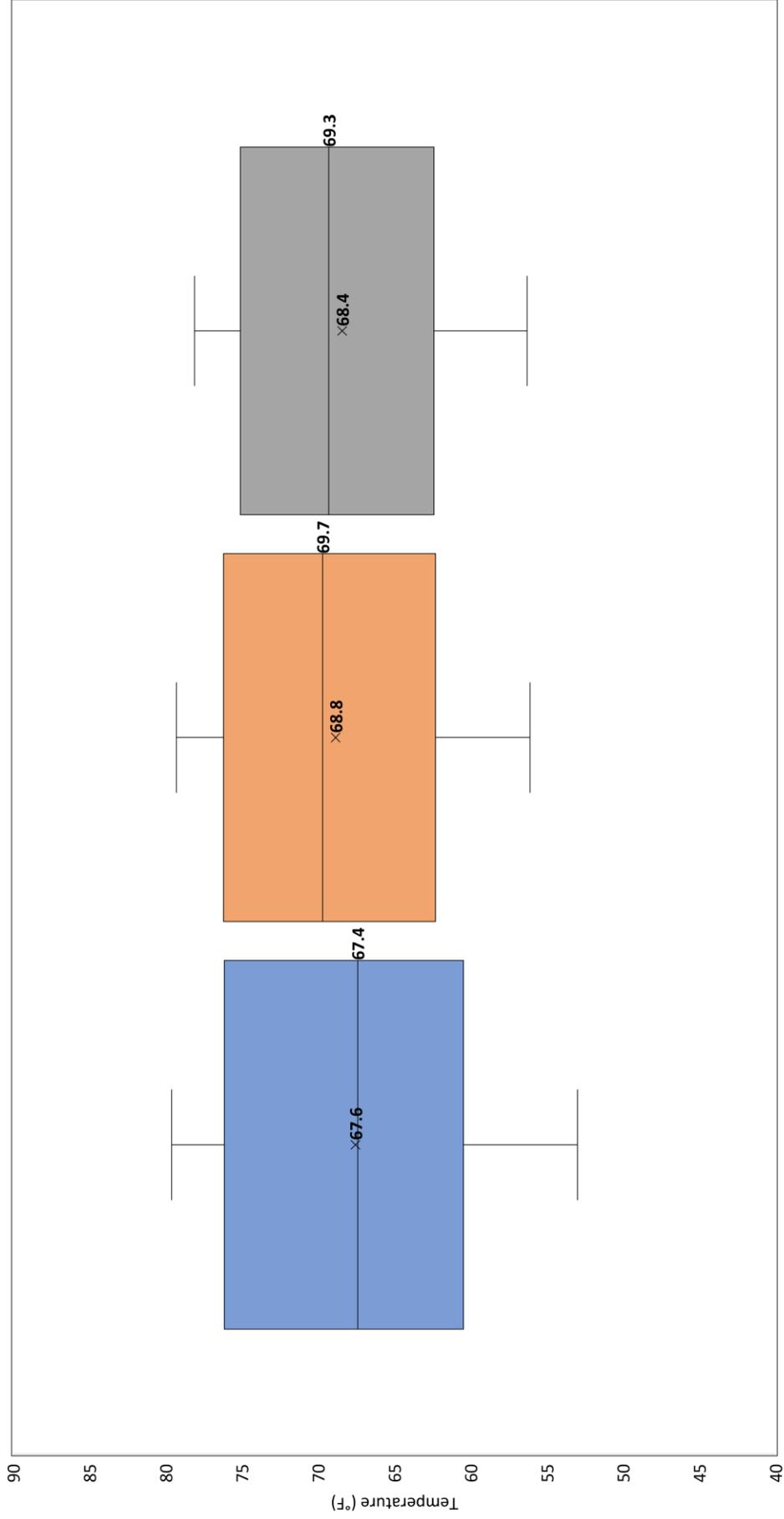
Cahaba Valley Creek at Police Firing Range																			
Date	Year	BOD (mg/L)	TSS (mg/L)	TDS (mg/L)	Ammonia (mg/L)	TKN (mg/L)	NO <sub>2</sub> /NO <sub>3</sub> (mg/L)	Total N (mg/L)	Total P (mg/L)	O & G (mg/L)	pH (s.u.)	Temperature °F	DO (mg/L)	Conductivity (µS/cm)	Hardness (mg/L)	Turbidity (NTU)	COD (mg/L)	E. Coli (MPN/100 mL)	Flow <sup>1</sup> (cfs)
2/27/2017	2	<2.00	8	160	<0.15	<0.15	1.35	1.35	0.16	<5	7.87	56.3	10.22	265	89	6.4	34	310	-
6/15/2017	2	<2.00	49	160	0.31	0.64	0.69	1.35	0.05	<5	7.72	N/A	8.03	223	120	46.1	22	1870	-
6/29/2017	2	<2.00	14	142	<0.16	<0.16	0.59	0.59	0.15	<5	7.75	73.7	7.80	230	120	12.2	20	1440	-
8/22/2017	2	2.74	5	200	0.86	0.58	1.06	1.64	0.38	<5	6.72	75.7	7.70	301	170	5.6	32	2280	-
6/25/2018	3	<2.00	6	176	0.58	0.86	0.48	1.34	0.03	<5	7.94	78.1	7.99	282	120	3.7	<20	100	-
7/31/2018	3	3.38	319	202	0.28	0.58	0.35	0.93	0.20	<5	8.56	76.3	7.92	287	48	366.0	<20	250	-
8/9/2018	3	2.21	5	198	0.28	0.58	0.54	1.12	0.10	<5	7.86	76.6	7.73	314	95	6.2	28	270	-
9/5/2018	3	<2.00	7	184	0.26	0.57	0.34	0.91	<0.02	<5	7.92	74.4	7.68	320	143	2.5	53	400	-
11/11/2018	4	5.90	14	230	<0.14	0.56	0.36	0.92	0.03	<5	7.98	65.2	8.29	309	120	15.0	38	1500	-
4/25/2019	4	<2.00	1	146	<0.14	0.31	<0.14	0.74	<0.02	<5	7.82	65.8	8.51	233	113	3.2	<20	320	-
5/9/2019	4	5.91	14	176	<0.14	1.42	0.44	1.86	0.03	<5	7.95	69.3	8.31	278	125	7.8	<20	740	-
10/7/2019	4	2.15	2	170	0.57	1.43	0.29	1.72	0.04	<5	7.71	72.9	7.44	205	118	3.3	<20	50	-
11/7/2019	5	2.00	5	192	<0.14	0.87	0.45	1.32	0.04	<5	7.92	62.6	8.90	315	173	4.8	<20	500	-
12/10/2019	5	<2.00	3	234	<0.14	0.29	0.30	0.59	<0.02	<5	7.82	59.8	9.23	313	159	3.9	29	250	-
2/10/2020	5	<2.00	17	82	0.29	0.88	0.37	1.25	<0.02	<5	7.79	56.5	9.84	175	120	13.4	<20	350	-
3/31/2020	5	2.30	12	180	0.28	0.85	0.43	1.28	<0.02	<5	7.85	62.5	8.99	247	154	8.8	27	8160	-
3/31/2021	6	3.28	64	132	0.55	0.83	0.28	1.11	0.13	<5	8.01	65.1	8.77	167	88	31.6	44	1450	-
6/19/2021	6	2.53	125	96	0.28	0.29	0.36	0.65	0.12	<5	8.50	73.2	8.21	179	120	75.7	34	2200	-
8/11/2021	6	<2.00	8	190	<0.14	<0.14	0.50	0.50	<0.02	<5	7.95	75.1	7.99	299	188	6.7	<20	250	-
8/19/2021	6	<2.00	3	208	<0.14	0.56	0.53	1.09	<0.02	<5	7.91	74.8	7.94	304	220	1.0	<20	140	-
12/6/2021	7	2.09	114	154	<0.14	0.28	0.32	0.60	0.08	<5	7.63	61.7	8.54	250	97	39.0	41	2240	-
3/15/2022	7	<2.00	6	160	0.28	0.28	0.37	0.65	0.03	<5	7.38	57.8	10.28	206	120	7.0	<20	200	-
4/5/2022	7	4.54	95	82	0.28	0.85	0.19	1.04	<0.02	<5	7.10	62.4	8.93	133	86	72.0	58	7000	-
7/18/2022	7	2.25	51	150	<0.14	0.86	0.49	1.35	0.06	<5	7.81	77.9	7.79	265	190	37.2	<20	1300	-
Average		2.64	39	167	0.28	0.62	0.47	1.08	0.07	5	7.81	68.4	8.46	254	129	32.5	28	1399	-

Notes:

1. Data from USGS not available at time of sampling.
2. <,> represent laboratory testing method's detection limits.

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City of Pelham MS4  
 Stormwater Management Program  
 Cumulative Wet Weather Sampling Results  
 2017-2022

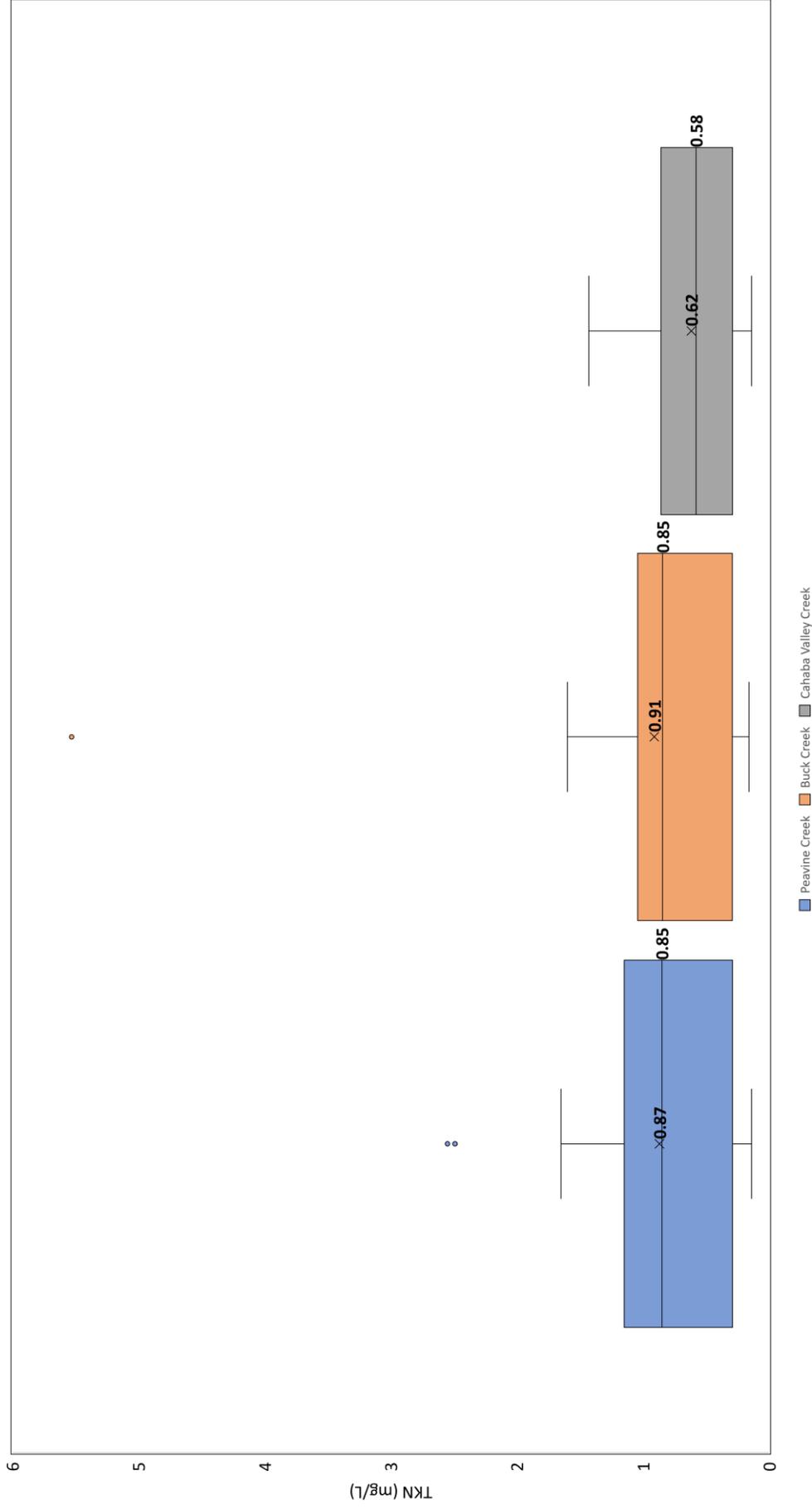


Peavine Creek    Buck Creek    Cahaba Valley Creek

Box Boundary = 1st and third quartile (Q1, Q3)  
 Box Partition Line = Median (Q2)  
 Interquartile Range (IQR) = Q3-Q1

Upper Whisker =  $Q3 + 1.5 * IQR$   
 Lower Whisker =  $Q1 - 1.5 * IQR$   
 Outlier = data values > upper or < lower whisker line

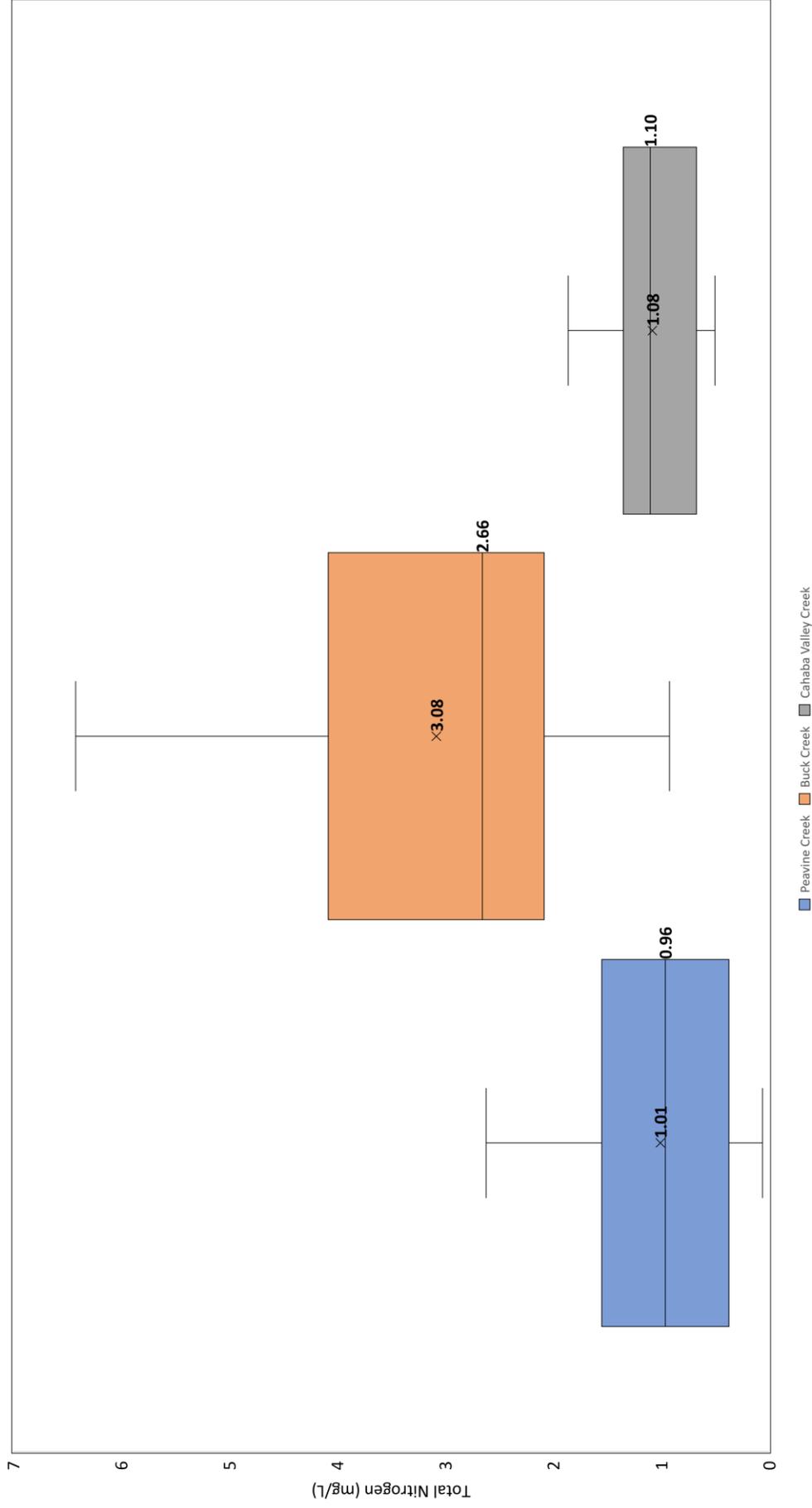
City of Pelham MS4  
 Stormwater Management Program  
 Cumulative Wet Weather Sampling Results  
 2017-2022



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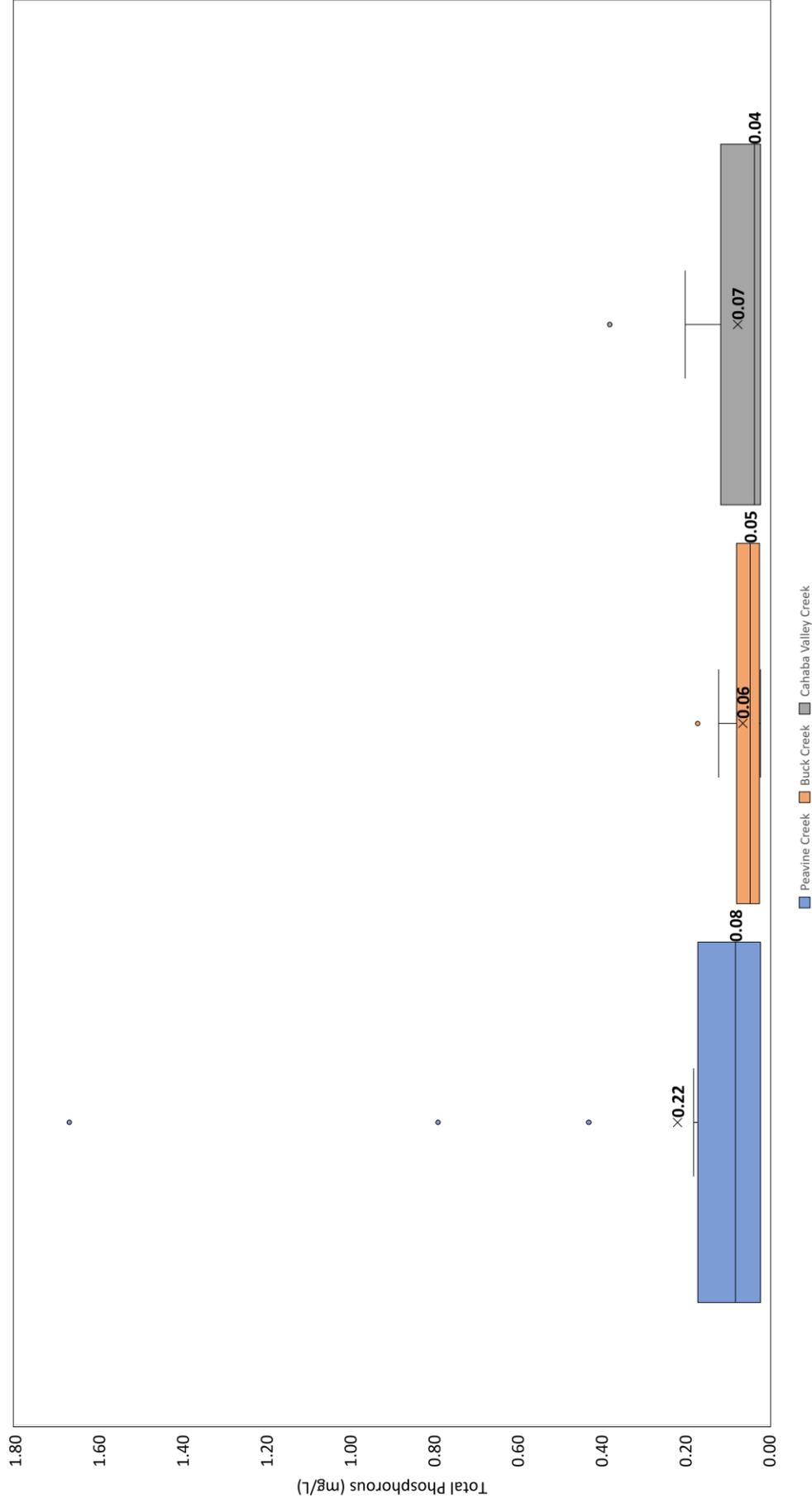
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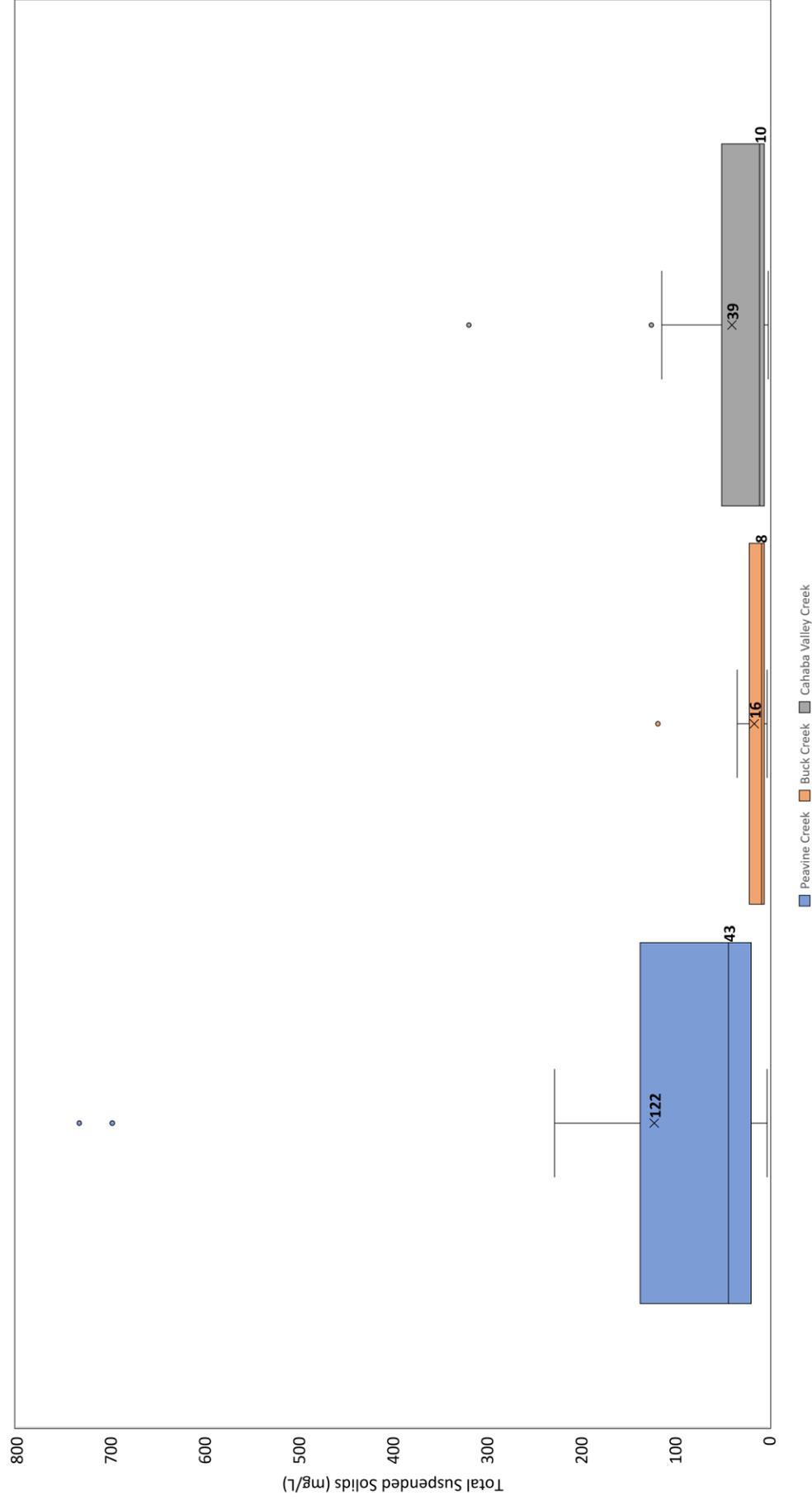
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City of Pelham MS4  
 Stormwater Management Program  
 Cumulative Wet Weather Sampling Results  
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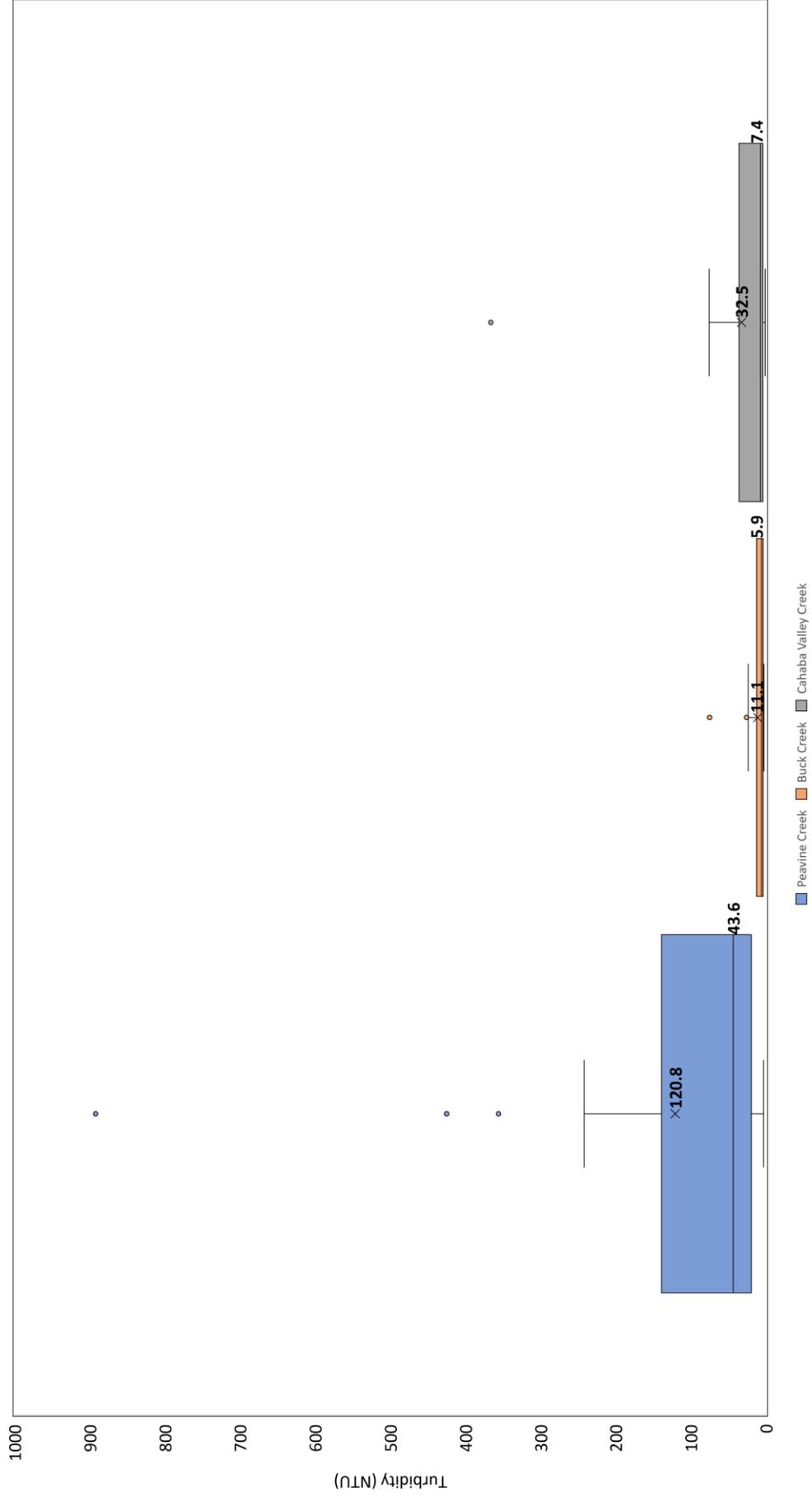
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City of Pelham MS4  
 Stormwater Management Program  
 Cumulative Wet Weather Sampling Results  
 2017-2022



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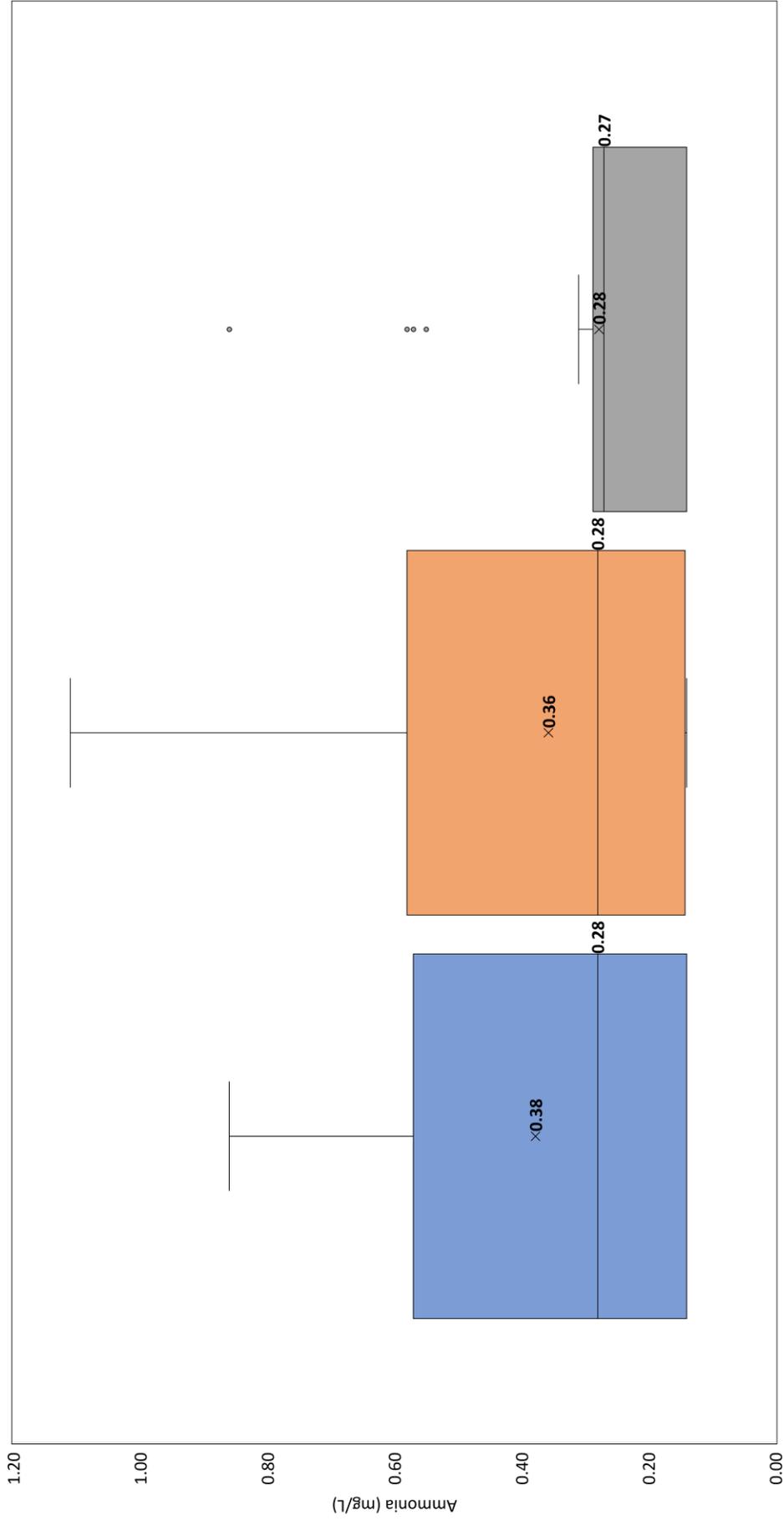
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City of Pelham MS4  
 Stormwater Management Program  
 Cumulative Wet Weather Sampling Results  
 2017-2022



Peavine Creek    Buck Creek    Cahaba Valley Creek

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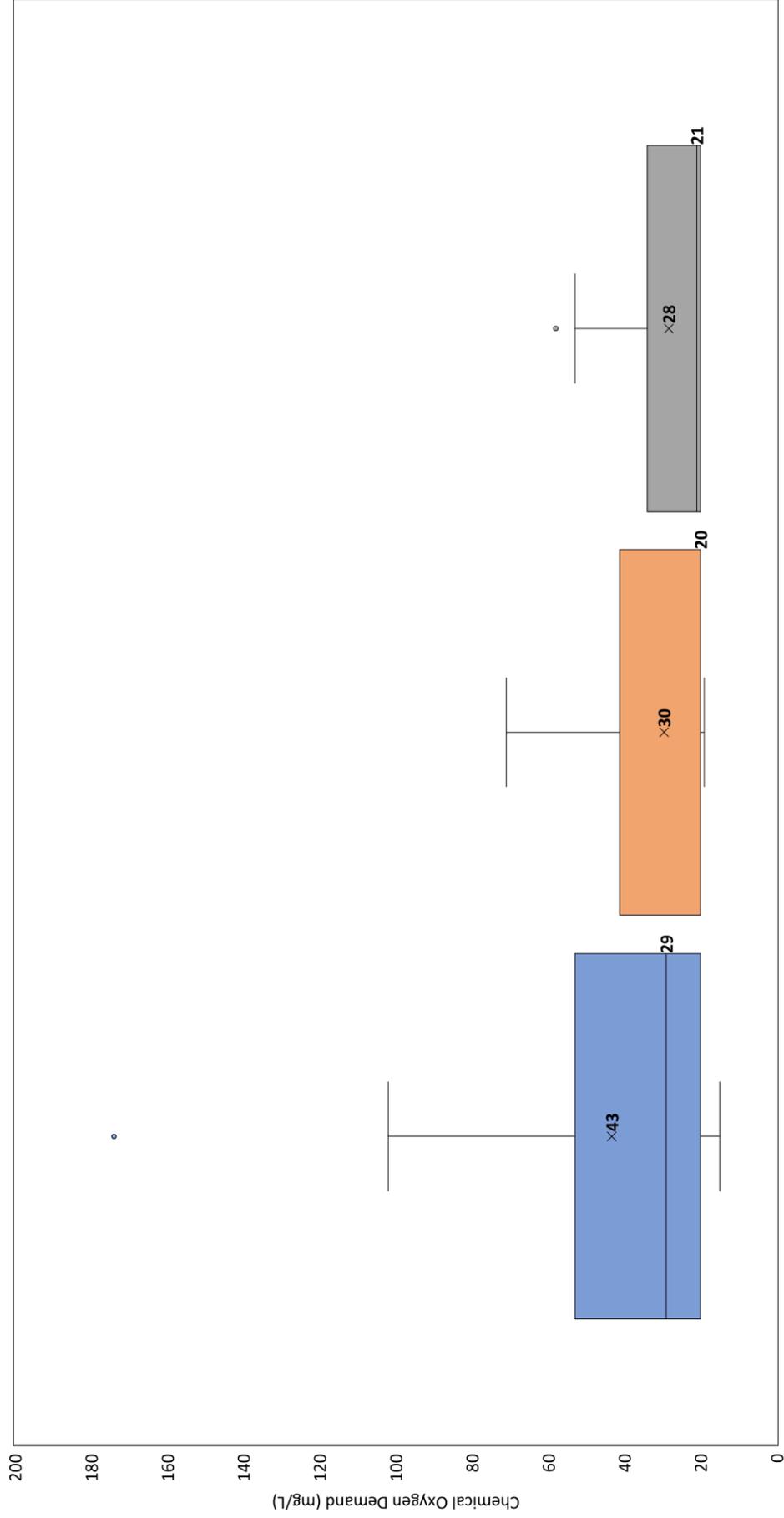
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City of Pelham MS4  
 Stormwater Management Program  
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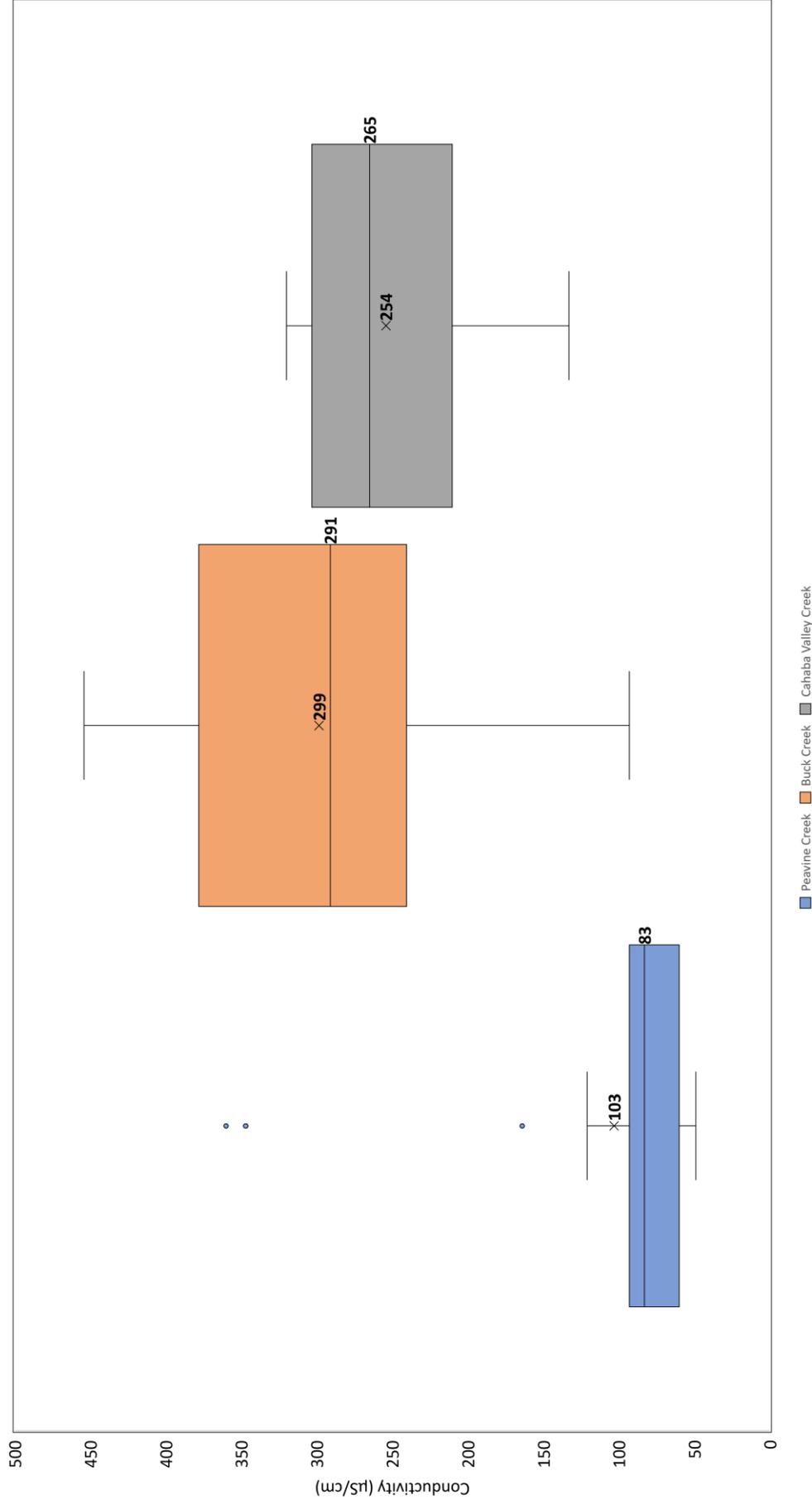


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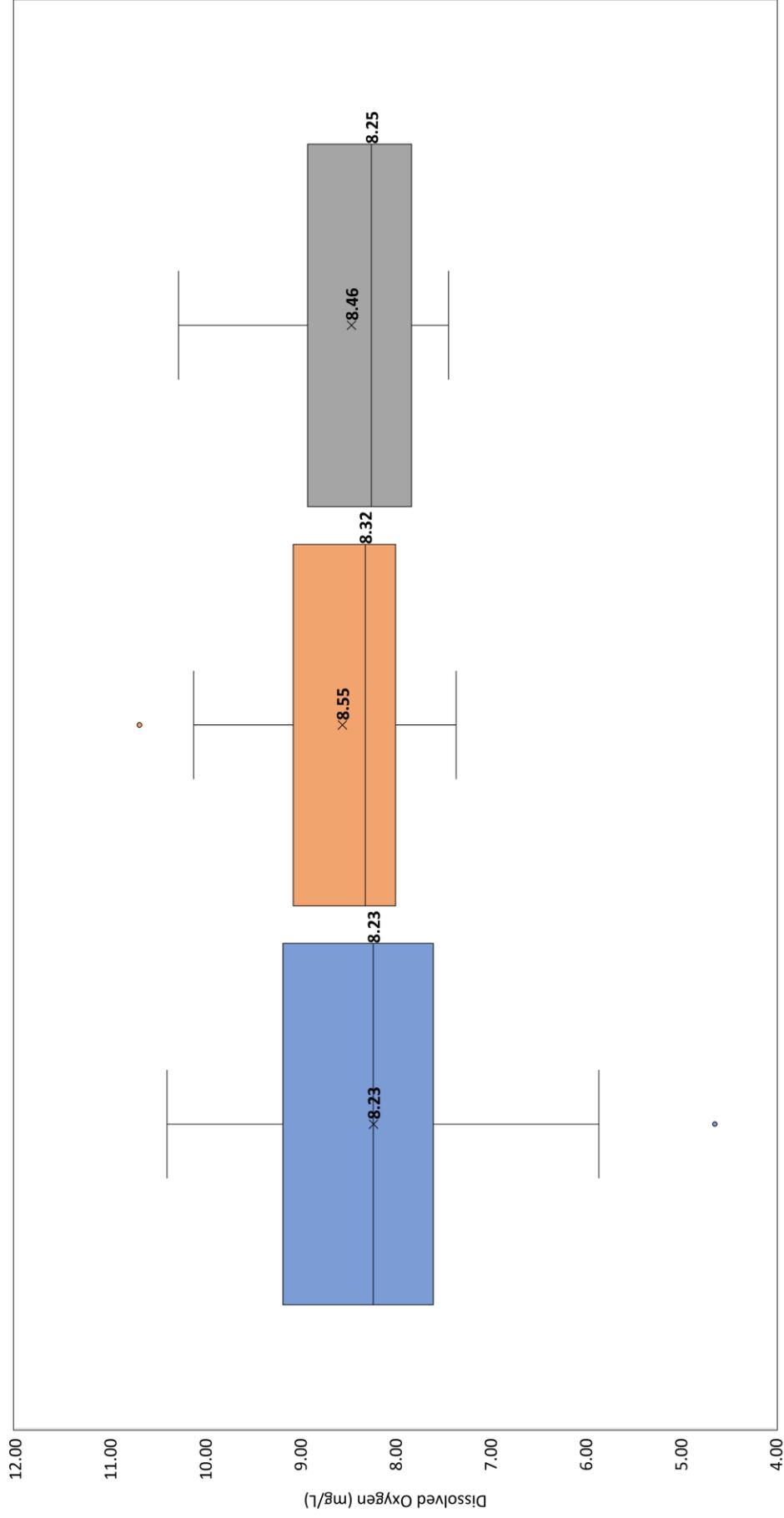
City of Pelham MS4  
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 2017-2022



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City of Pelham MS4  
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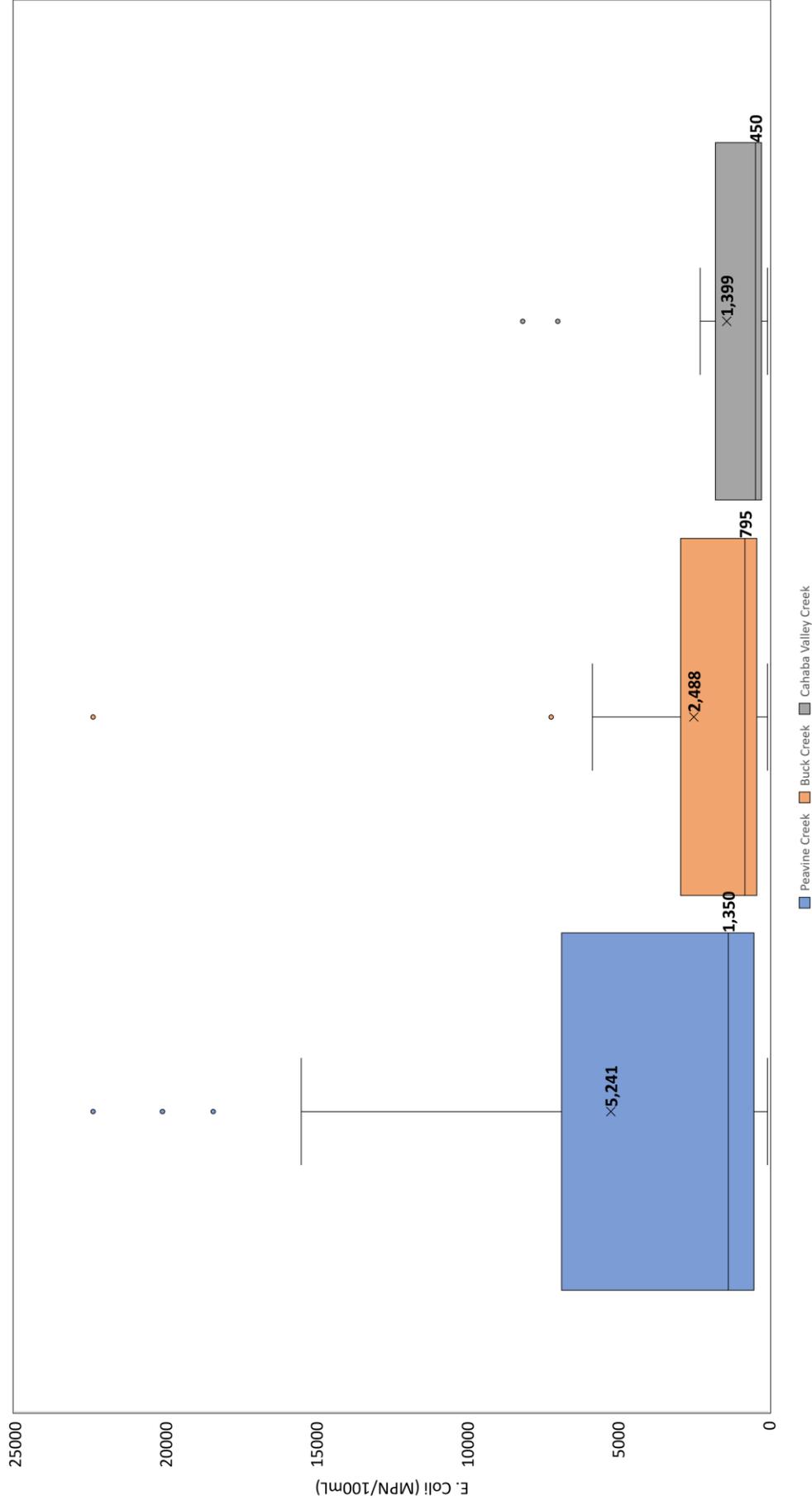


Peavine Creek Buck Creek Cahaba Valley Creek

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City of Pelham MS4  
 Stormwater Management Program  
 Cumulative Wet Weather Sampling Results  
 2017-2022



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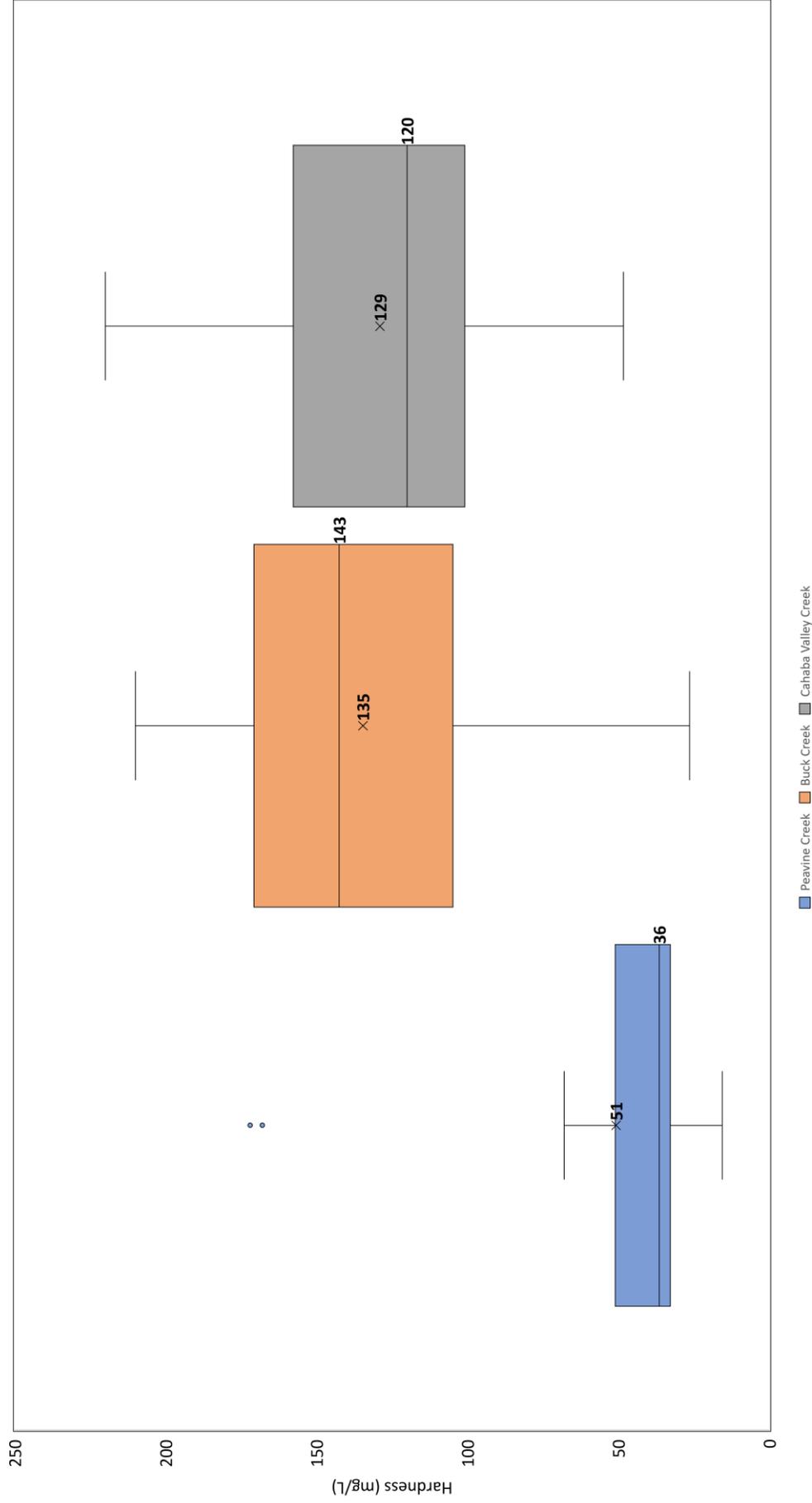
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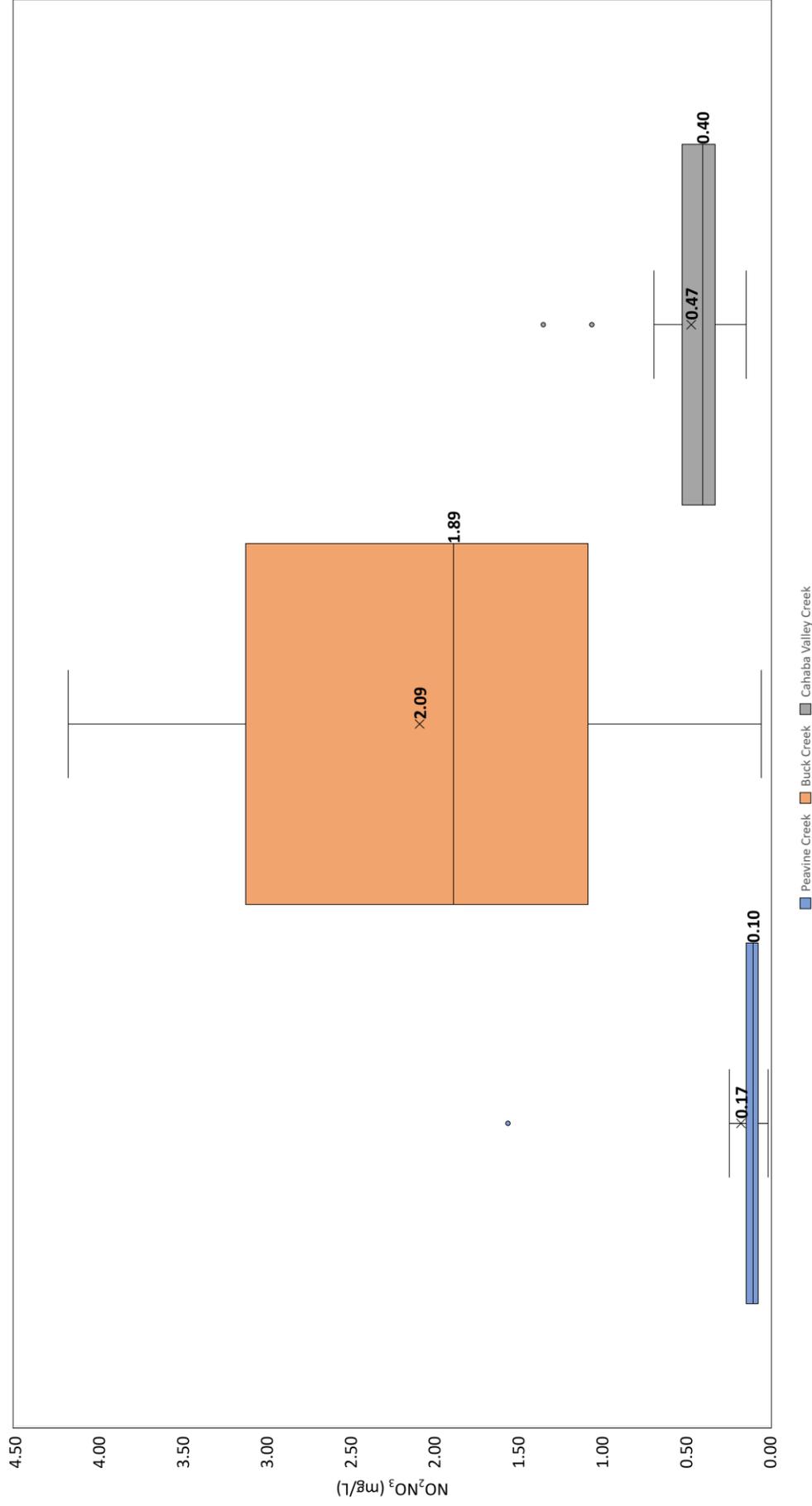
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 2017-2022



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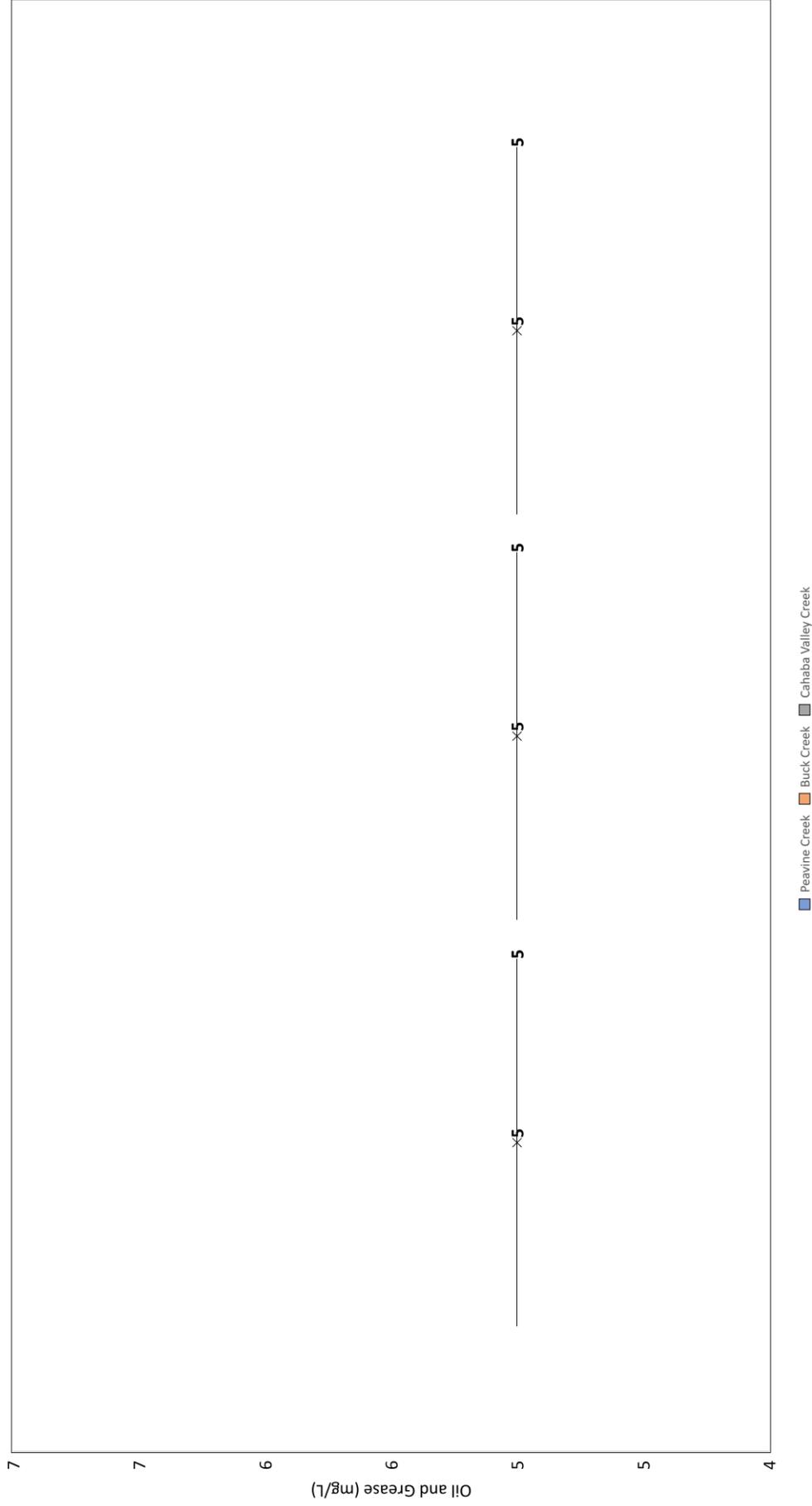
City of Pelham MS4  
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 2017-2022



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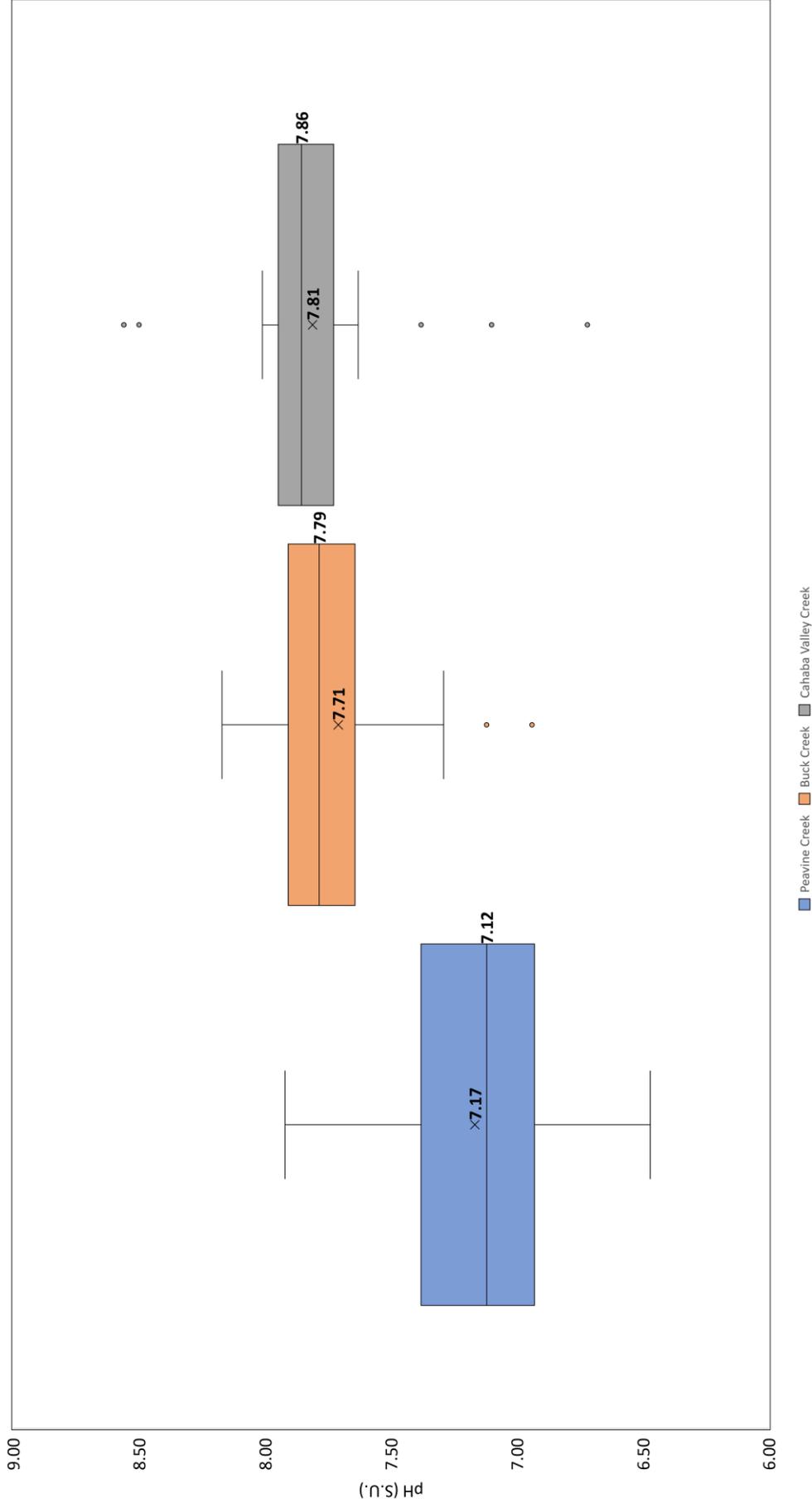
City of Pelham MS4  
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 Cumulative Wet Weather Sampling Results  
 2017-2022



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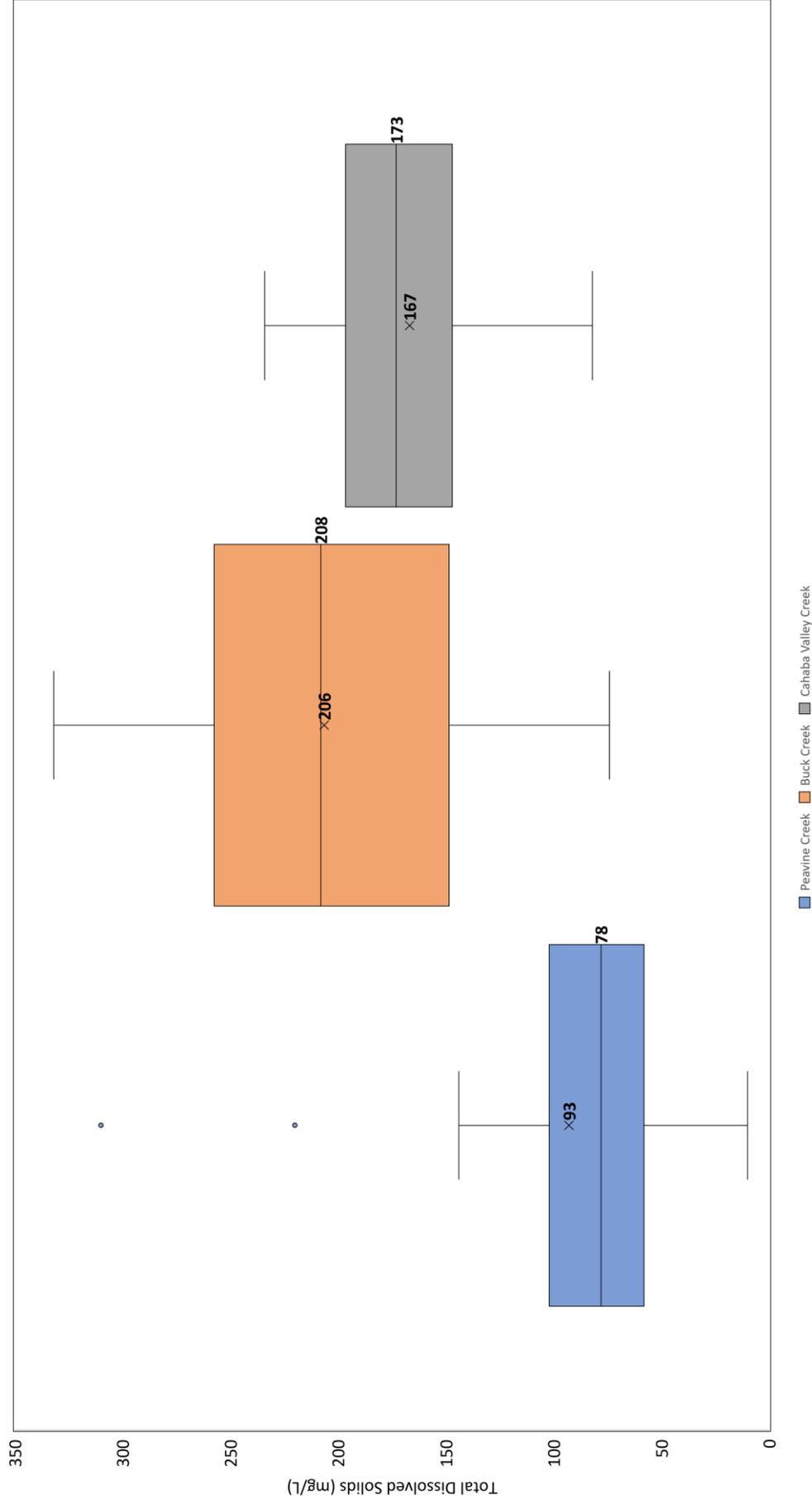
City of Pelham MS4  
 Stormwater Management Program  
 Cumulative Wet Weather Sampling Results  
 2017-2022



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City of Pelham MS4  
 Stormwater Management Program  
 Cumulative Wet Weather Sampling Results  
 2017-2022



Peavine Creek    Buck Creek    Cahaba Valley Creek

Box Boundary = 1st and third quartile (Q1, Q3)  
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**City of Pelham Storm Water Management Program**  
Municipal Consultants, Inc.  
Wet Weather Screening – Field Data

<b>SAMPLING SITE</b>		
<input type="checkbox"/> Cahaba Valley Creek Site (Police Firing Range) <input checked="" type="checkbox"/> Buck Creek Site (Police Firing Range) <input type="checkbox"/> Peavine Creek Site (Hwy 11)		
Date: <u>12/6/2021</u> Time: <u>11:04 AM</u> Inspector(s): <u>Wells Garner</u>		
<b>SAMPLE SITE DATA</b>		
Ambient Temperature: <u>62.3</u> °F		
Color: <input type="checkbox"/> Clear <input type="checkbox"/> Red <input type="checkbox"/> Yellow <input type="checkbox"/> Brown <input checked="" type="checkbox"/> Green <input type="checkbox"/> Gray <input type="checkbox"/> Other _____		
Clarity: <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Cloudy <input type="checkbox"/> Opaque <input type="checkbox"/> Turbid <input type="checkbox"/> Other _____		
Flow: <input type="checkbox"/> Fast <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Slow <input type="checkbox"/> Stagnant <input type="checkbox"/> Other _____		
Temperature:	<u>62.3° F</u>	Time: <u>11:04 AM</u>
pH Reading:	<u>7.12</u>	Time: <u>11:04 AM</u>
pH Method of Measurement:	<u>meter</u>	
Dissolved Oxygen Reading:	<u>8.74 mg/L</u>	Time: <u>11:04 AM</u>
Water Level Reading (USGS):	<u>5.45</u>	Time: <u>11:04 AM</u>
<b>STORM EVENT DATA</b> <i>(to be completed by office staff)</i>		
Rainfall Began (Time):	<u>10:20 AM</u>	
Rainfall Ended (Time):	<u>1:35 PM</u>	Length of Storm (hr.): <u>3.25</u>
Total Rainfall (in):	<u>1.05"</u>	
End of last rainfall event:	Date: <u>11/22/21</u>	
	Time: <u>1:50 PM</u>	
	Time since last rainfall (hr.) <u>14 days</u>	

Comments: Daily Rainfall Data - <https://www.weather.gov/wrh/Climate?wfo=bmx>  
Hourly Rainfall Data - [https://mesonet.agron.iastate.edu/request/download.phtml?network=AL\\_ASOS](https://mesonet.agron.iastate.edu/request/download.phtml?network=AL_ASOS)  
Alabaster Station used as reference

Data Sheet completed by (signature): Wells Garner



**City of Pelham Storm Water Management Program**  
Municipal Consultants, Inc.  
Wet Weather Screening – Field Data

<b>SAMPLING SITE</b>		
<input type="checkbox"/> Cahaba Valley Creek Site (Police Firing Range) <input type="checkbox"/> Buck Creek Site (Police Firing Range) <input checked="" type="checkbox"/> Peavine Creek Site (Hwy 11)		
Date: <u>12/6/2021</u> Time: <u>11:46 AM</u> Inspector(s): <u>Wells Garner</u>		
<b>SAMPLE SITE DATA</b>		
Ambient Temperature: <u>60.7</u> °F		
Color: <input type="checkbox"/> Clear <input type="checkbox"/> Red <input type="checkbox"/> Yellow <input type="checkbox"/> Brown <input checked="" type="checkbox"/> Green <input type="checkbox"/> Gray <input type="checkbox"/> Other _____		
Clarity: <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Cloudy <input type="checkbox"/> Opaque <input type="checkbox"/> Turbid <input type="checkbox"/> Other _____		
Flow: <input type="checkbox"/> Fast <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Slow <input type="checkbox"/> Stagnant <input type="checkbox"/> Other _____		
Temperature:	<u>60.7° F</u>	Time: <u>11:46 AM</u>
pH Reading:	<u>6.76</u>	Time: <u>11:46 AM</u>
pH Method of Measurement:	<u>meter</u>	
Dissolved Oxygen Reading:	<u>8.78 mg/L</u>	Time: <u>11:46 AM</u>
Water Level Reading (USGS):	<u>6.75</u>	Time: <u>11:46 AM</u>
<b>STORM EVENT DATA</b> <i>(to be completed by office staff)</i>		
Rainfall Began (Time):	<u>10:20 AM</u>	
Rainfall Ended (Time):	<u>1:35 PM</u>	Length of Storm (hr.): <u>3.25</u>
Total Rainfall (in):	<u>1.05"</u>	
End of last rainfall event:	Date: <u>11/22/21</u>	
	Time: <u>1:50 PM</u>	
	Time since last rainfall (hr.) <u>14 days</u>	

Comments: Daily Rainfall Data - <https://www.weather.gov/wrh/Climate?wfo=bmx>  
Hourly Rainfall Data - [https://mesonet.agron.iastate.edu/request/download.phtml?network=AL\\_ASOS](https://mesonet.agron.iastate.edu/request/download.phtml?network=AL_ASOS)  
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Data Sheet completed by (signature): Wells Garner

**City of Pelham Storm Water Management Program**  
Municipal Consultants, Inc.  
Wet Weather Screening – Field Data

<b>SAMPLING SITE</b>		
<input type="checkbox"/> Cahaba Valley Creek Site (Police Firing Range) <input checked="" type="checkbox"/> Buck Creek Site (Police Firing Range) <input type="checkbox"/> Peavine Creek Site (Hwy 11)		
Date: <u>3/15/2022</u> Time: <u>1:37 pm</u> Inspector(s): <u>Wells Garner</u>		
<b>SAMPLE SITE DATA</b>		
Ambient Temperature: <u>57</u> °F		
Color: <input type="checkbox"/> Clear <input type="checkbox"/> Red <input type="checkbox"/> Yellow <input type="checkbox"/> Brown <input checked="" type="checkbox"/> Green <input type="checkbox"/> Gray <input type="checkbox"/> Other _____		
Clarity: <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Cloudy <input type="checkbox"/> Opaque <input type="checkbox"/> Turbid <input type="checkbox"/> Other _____		
Flow: <input type="checkbox"/> Fast <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Slow <input type="checkbox"/> Stagnant <input type="checkbox"/> Other _____		
Temperature:	<u>57° F</u>	Time: <u>1:37 pm</u>
pH Reading:	<u>7.29</u>	Time: <u>1:37 pm</u>
pH Method of Measurement:	<u>meter</u>	
Dissolved Oxygen Reading:	<u>10.69 mg/L</u>	Time: <u>1:37 pm</u>
Water Level Reading (USGS):	<u>5.5'</u>	Time: <u>1:37 pm</u>
<b>STORM EVENT DATA</b> <i>(to be completed by office staff)</i>		
Rainfall Began (Time):	<u>11:45 AM</u>	
Rainfall Ended (Time):	<u>8:50 PM</u>	Length of Storm (hr.): <u>9</u>
Total Rainfall (in):	<u>1.22"</u>	
End of last rainfall event:	Date: <u>3/12/22</u>	
	Time: <u>1:50 AM</u>	
	Time since last rainfall (hr.) <u>82</u>	

Comments: Daily Rainfall Data - <https://www.weather.gov/wrh/Climate?wfo=bmx>  
Hourly Rainfall Data - [https://mesonet.agron.iastate.edu/request/download.phtml?network=AL\\_ASOS](https://mesonet.agron.iastate.edu/request/download.phtml?network=AL_ASOS)  
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Data Sheet completed by (signature): Wells Garner

**City of Pelham Storm Water Management Program**  
Municipal Consultants, Inc.  
Wet Weather Screening – Field Data

<b>SAMPLING SITE</b>		
<input checked="" type="checkbox"/> Cahaba Valley Creek Site (Police Firing Range) <input type="checkbox"/> Buck Creek Site (Police Firing Range) <input type="checkbox"/> Peavine Creek Site (Hwy 11)		
Date: <u>3/15/2022</u> Time: <u>1:48 pm</u> Inspector(s): <u>Wells Garner</u>		
<b>SAMPLE SITE DATA</b>		
Ambient Temperature: <u>57.8</u> °F		
Color: <input type="checkbox"/> Clear <input type="checkbox"/> Red <input type="checkbox"/> Yellow <input type="checkbox"/> Brown <input checked="" type="checkbox"/> Green <input type="checkbox"/> Gray <input type="checkbox"/> Other _____		
Clarity: <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Cloudy <input type="checkbox"/> Opaque <input type="checkbox"/> Turbid <input type="checkbox"/> Other _____		
Flow: <input checked="" type="checkbox"/> Fast <input type="checkbox"/> Moderate <input type="checkbox"/> Slow <input type="checkbox"/> Stagnant <input type="checkbox"/> Other _____		
Temperature:	<u>57.8° F</u>	Time: <u>1:48 pm</u>
pH Reading:	<u>7.38</u>	Time: <u>1:48 pm</u>
pH Method of Measurement:	<u>meter</u>	
Dissolved Oxygen Reading:	<u>10.28 mg/L</u>	Time: <u>1:48 pm</u>
Water Level Reading (USGS):	<u>N/A</u>	Time: <u>1:48 pm</u>
<b>STORM EVENT DATA (to be completed by office staff)</b>		
Rainfall Began (Time):	<u>11:45 AM</u>	
Rainfall Ended (Time):	<u>8:50 AM</u>	Length of Storm (hr.): <u>9</u>
Total Rainfall (in):	<u>1.22"</u>	
End of last rainfall event:	Date: <u>3/12/22</u>	
	Time: <u>1:50 AM</u>	
	Time since last rainfall (hr.) <u>82</u>	

Comments: Daily Rainfall Data - <https://www.weather.gov/wrh/Climate?wfo=bmx>  
Hourly Rainfall Data - [https://mesonet.agron.iastate.edu/request/download.phtml?network=AL\\_ASOS](https://mesonet.agron.iastate.edu/request/download.phtml?network=AL_ASOS)  
Alabaster Station used as reference

Data Sheet completed by (signature): Wells Garner

**City of Pelham Storm Water Management Program**  
Municipal Consultants, Inc.  
Wet Weather Screening – Field Data

<b>SAMPLING SITE</b>		
<input type="checkbox"/> Cahaba Valley Creek Site (Police Firing Range) <input type="checkbox"/> Buck Creek Site (Police Firing Range) <input checked="" type="checkbox"/> Peavine Creek Site (Hwy 11)		
Date: <u>3/15/2022</u> Time: <u>1:07 pm</u> Inspector(s): <u>Wells Garner</u>		
<b>SAMPLE SITE DATA</b>		
Ambient Temperature: <u>56.0</u> °F		
Color: <input type="checkbox"/> Clear <input type="checkbox"/> Red <input type="checkbox"/> Yellow <input type="checkbox"/> Brown <input checked="" type="checkbox"/> Green <input type="checkbox"/> Gray <input type="checkbox"/> Other _____		
Clarity: <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Cloudy <input type="checkbox"/> Opaque <input type="checkbox"/> Turbid <input type="checkbox"/> Other _____		
Flow: <input checked="" type="checkbox"/> Fast <input type="checkbox"/> Moderate <input type="checkbox"/> Slow <input type="checkbox"/> Stagnant <input type="checkbox"/> Other _____		
Temperature:	<u>56.0° F</u>	Time: <u>1:07 pm</u>
pH Reading:	<u>6.53</u>	Time: <u>1:07 pm</u>
pH Method of Measurement:	<u>meter</u>	
Dissolved Oxygen Reading:	<u>10.13 mg/L</u>	Time: <u>1:07 pm</u>
Water Level Reading (USGS):	<u>6.95'</u>	Time: <u>1:07 pm</u>
<b>STORM EVENT DATA</b> <i>(to be completed by office staff)</i>		
Rainfall Began (Time):	<u>11:45 AM</u>	
Rainfall Ended (Time):	<u>8:50 PM</u>	Length of Storm (hr.): <u>9</u>
Total Rainfall (in):	<u>1.22"</u>	
End of last rainfall event:	Date: <u>3/12/22</u>	
	Time: <u>1:50 AM</u>	
	Time since last rainfall (hr.) <u>82</u>	

Comments: Daily Rainfall Data - <https://www.weather.gov/wrh/Climate?wfo=bmx>  
Hourly Rainfall Data - [https://mesonet.agron.iastate.edu/request/download.phtml?network=AL\\_ASOS](https://mesonet.agron.iastate.edu/request/download.phtml?network=AL_ASOS)  
Alabaster Station used as reference

Data Sheet completed by (signature): Wells Garner

**City of Pelham Storm Water Management Program**  
Municipal Consultants, Inc.  
Wet Weather Screening – Field Data

<b>SAMPLING SITE</b>		
<input type="checkbox"/> Cahaba Valley Creek Site (Police Firing Range) <input checked="" type="checkbox"/> Buck Creek Site (Police Firing Range) <input type="checkbox"/> Peavine Creek Site (Hwy 11)		
Date: <u>4/5/2022</u> Time: <u>10:45 AM</u> Inspector(s): <u>Wells Garner</u>		
<b>SAMPLE SITE DATA</b>		
Ambient Temperature: <u>61.9</u> °F		
Color: <input type="checkbox"/> Clear <input type="checkbox"/> Red <input type="checkbox"/> Yellow <input checked="" type="checkbox"/> Brown <input type="checkbox"/> Green <input type="checkbox"/> Gray <input type="checkbox"/> Other _____		
Clarity: <input type="checkbox"/> Clear <input type="checkbox"/> Cloudy <input checked="" type="checkbox"/> Opaque <input type="checkbox"/> Turbid <input type="checkbox"/> Other _____		
Flow: <input checked="" type="checkbox"/> Fast <input type="checkbox"/> Moderate <input type="checkbox"/> Slow <input type="checkbox"/> Stagnant <input type="checkbox"/> Other _____		
Temperature:	<u>61.9° F</u>	Time: <u>10:45 AM</u>
pH Reading:	<u>6.94</u>	Time: <u>10:45 AM</u>
pH Method of Measurement:	<u>meter</u>	
Dissolved Oxygen Reading:	<u>9.09 mg/L</u>	Time: <u>10:45 AM</u>
Water Level Reading (USGS):	<u>8.70</u>	Time: <u>10:45 AM</u>
<b>STORM EVENT DATA</b> <i>(to be completed by office staff)</i>		
Rainfall Began (Time):	<u>7:20 AM</u>	
Rainfall Ended (Time):	<u>10:45 AM</u>	Length of Storm (hr.): <u>3.5</u>
Total Rainfall (in):	<u>1.63"</u>	
End of last rainfall event:	Date: <u>3/30/22</u>	
	Time: <u>11:50 PM</u>	
	Time since last rainfall (hr.) <u>127.5</u>	

Comments: Daily Rainfall Data - <https://www.weather.gov/wrh/Climate?wfo=bmx>  
Hourly Rainfall Data - [https://mesonet.agron.iastate.edu/request/download.phtml?network=AL\\_ASOS](https://mesonet.agron.iastate.edu/request/download.phtml?network=AL_ASOS)  
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**City of Pelham Storm Water Management Program**  
Municipal Consultants, Inc.  
Wet Weather Screening – Field Data

<b>SAMPLING SITE</b>		
<input type="checkbox"/> Cahaba Valley Creek Site (Police Firing Range) <input type="checkbox"/> Buck Creek Site (Police Firing Range) <input checked="" type="checkbox"/> Peavine Creek Site (Hwy 11)		
Date: <u>4/5/2022</u> Time: <u>10:25 AM</u> Inspector(s): <u>Wells Garner</u>		
<b>SAMPLE SITE DATA</b>		
Ambient Temperature: <u>60.6</u> °F		
Color: <input type="checkbox"/> Clear <input type="checkbox"/> Red <input type="checkbox"/> Yellow <input checked="" type="checkbox"/> Brown <input type="checkbox"/> Green <input type="checkbox"/> Gray <input type="checkbox"/> Other _____		
Clarity: <input type="checkbox"/> Clear <input type="checkbox"/> Cloudy <input checked="" type="checkbox"/> Opaque <input type="checkbox"/> Turbid <input type="checkbox"/> Other _____		
Flow: <input checked="" type="checkbox"/> Fast <input type="checkbox"/> Moderate <input type="checkbox"/> Slow <input type="checkbox"/> Stagnant <input type="checkbox"/> Other _____		
Temperature:	<u>60.6° F</u>	Time: <u>10:25 AM</u>
pH Reading:	<u>6.47</u>	Time: <u>10:25 AM</u>
pH Method of Measurement:	<u>meter</u>	
Dissolved Oxygen Reading:	<u>9.29 mg/L</u>	Time: <u>10:25 AM</u>
Water Level Reading (USGS):	<u>7.98</u>	Time: <u>10:25 AM</u>
<b>STORM EVENT DATA (to be completed by office staff)</b>		
Rainfall Began (Time):	<u>7:20 AM</u>	
Rainfall Ended (Time):	<u>10:45 AM</u>	Length of Storm (hr.): <u>3.5</u>
Total Rainfall (in):	<u>1.63"</u>	
End of last rainfall event:	Date: <u>3/30/22</u>	
	Time: <u>11:50 PM</u>	
	Time since last rainfall (hr.) <u>127.5</u>	

Comments: Daily Rainfall Data - <https://www.weather.gov/wrh/Climate?wfo=bmx>  
Hourly Rainfall Data - [https://mesonet.agron.iastate.edu/request/download.phtml?network=AL\\_ASOS](https://mesonet.agron.iastate.edu/request/download.phtml?network=AL_ASOS)  
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**City of Pelham Storm Water Management Program**  
Municipal Consultants, Inc.  
Wet Weather Screening – Field Data

<b>SAMPLING SITE</b>		
<input type="checkbox"/> Cahaba Valley Creek Site (Police Firing Range) <input checked="" type="checkbox"/> Buck Creek Site (Police Firing Range) <input type="checkbox"/> Peavine Creek Site (Hwy 11)		
Date: <u>7/18/2022</u> Time: <u>3:22 PM</u> Inspector(s): <u>Wells Garner</u>		
<b>SAMPLE SITE DATA</b>		
Ambient Temperature: <u>79.3</u> °F		
Color: <input type="checkbox"/> Clear <input type="checkbox"/> Red <input type="checkbox"/> Yellow <input checked="" type="checkbox"/> Brown <input type="checkbox"/> Green <input type="checkbox"/> Gray <input type="checkbox"/> Other _____		
Clarity: <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Cloudy <input type="checkbox"/> Opaque <input type="checkbox"/> Turbid <input type="checkbox"/> Other _____		
Flow: <input type="checkbox"/> Fast <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Slow <input type="checkbox"/> Stagnant <input type="checkbox"/> Other _____		
Temperature:	<u>79.3° F</u>	Time: <u>3:27 PM</u>
pH Reading:	<u>7.68</u>	Time: <u>3:27 PM</u>
pH Method of Measurement:	<u>meter</u>	
Dissolved Oxygen Reading:	<u>7.92 mg/L</u>	Time: <u>3:27 PM</u>
Water Level Reading (USGS):	<u>4.80</u>	Time: <u>3:27 PM</u>
<b>STORM EVENT DATA (to be completed by office staff)</b>		
Rainfall Began (Time):	<u>2:30 PM</u>	
Rainfall Ended (Time):	<u>3:53 PM</u>	Length of Storm (hr.): <u>1.5</u>
Total Rainfall (in):	<u>1.46"</u>	
End of last rainfall event:	Date: <u>7/10/2022</u>	
	Time: <u>6:53 PM</u>	
	Time since last rainfall (hr.) <u>188</u>	

Comments: Daily Rainfall Data - <https://www.weather.gov/wrh/Climate?wfo=bmx>  
Hourly Rainfall Data - [https://mesonet.agron.iastate.edu/request/download.phtml?network=AL\\_ASOS](https://mesonet.agron.iastate.edu/request/download.phtml?network=AL_ASOS)  
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Municipal Consultants, Inc.  
Wet Weather Screening – Field Data

<b>SAMPLING SITE</b>		
<input checked="" type="checkbox"/> Cahaba Valley Creek Site (Police Firing Range) <input type="checkbox"/> Buck Creek Site (Police Firing Range) <input type="checkbox"/> Peavine Creek Site (Hwy 11)		
Date: <u>7/18/2022</u> Time: <u>3:32 PM</u> Inspector(s): <u>Wells Garner</u>		
<b>SAMPLE SITE DATA</b>		
Ambient Temperature: <u>77.9</u> °F		
Color: <input type="checkbox"/> Clear <input type="checkbox"/> Red <input type="checkbox"/> Yellow <input checked="" type="checkbox"/> Brown <input type="checkbox"/> Green <input type="checkbox"/> Gray <input type="checkbox"/> Other _____		
Clarity: <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Cloudy <input type="checkbox"/> Opaque <input type="checkbox"/> Turbid <input type="checkbox"/> Other _____		
Flow: <input checked="" type="checkbox"/> Fast <input type="checkbox"/> Moderate <input type="checkbox"/> Slow <input type="checkbox"/> Stagnant <input type="checkbox"/> Other _____		
Temperature:	<u>77.9 F</u>	Time: <u>3:37 PM</u>
pH Reading:	<u>7.81</u>	Time: <u>3:37 PM</u>
pH Method of Measurement:	<u>meter</u>	
Dissolved Oxygen Reading:	<u>7.79 mg/L</u>	Time: <u>3:37 PM</u>
Water Level Reading (USGS):	<u>N/A</u>	Time: <u>N/A</u>
<b>STORM EVENT DATA (to be completed by office staff)</b>		
Rainfall Began (Time):	<u>2:30 PM</u>	
Rainfall Ended (Time):	<u>3:53 PM</u>	Length of Storm (hr.): <u>1.5</u>
Total Rainfall (in):	<u>1.46"</u>	
End of last rainfall event:	Date: <u>7/10/2022</u>	
	Time: <u>6:53 PM</u>	
	Time since last rainfall (hr.) <u>188</u>	

Comments: Daily Rainfall Data - <https://www.weather.gov/wrh/Climate?wfo=bmx>  
Hourly Rainfall Data - [https://mesonet.agron.iastate.edu/request/download.phtml?network=AL\\_ASOS](https://mesonet.agron.iastate.edu/request/download.phtml?network=AL_ASOS)  
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Municipal Consultants, Inc.  
Wet Weather Screening – Field Data

<b>SAMPLING SITE</b>		
<input type="checkbox"/> Cahaba Valley Creek Site (Police Firing Range) <input type="checkbox"/> Buck Creek Site (Police Firing Range) <input checked="" type="checkbox"/> Peavine Creek Site (Hwy 11)		
Date: <u>7/18/2022</u> Time: <u>2:53 PM</u> Inspector(s): <u>Wells Garner</u>		
<b>SAMPLE SITE DATA</b>		
Ambient Temperature: <u>77.4</u> °F		
Color: <input type="checkbox"/> Clear <input type="checkbox"/> Red <input type="checkbox"/> Yellow <input checked="" type="checkbox"/> Brown <input type="checkbox"/> Green <input type="checkbox"/> Gray <input type="checkbox"/> Other _____		
Clarity: <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Cloudy <input type="checkbox"/> Opaque <input type="checkbox"/> Turbid <input type="checkbox"/> Other _____		
Flow: <input checked="" type="checkbox"/> Fast <input type="checkbox"/> Moderate <input type="checkbox"/> Slow <input type="checkbox"/> Stagnant <input type="checkbox"/> Other _____		
Temperature:	<u>77.4° F</u>	Time: <u>2:58 PM</u>
pH Reading:	<u>7.39</u>	Time: <u>2:58 PM</u>
pH Method of Measurement:	<u>meter</u>	
Dissolved Oxygen Reading:	<u>7.89 mg/L</u>	Time: <u>2:58 PM</u>
Water Level Reading (USGS):	<u>6.45</u>	Time: <u>2:58 PM</u>
<b>STORM EVENT DATA (to be completed by office staff)</b>		
Rainfall Began (Time):	<u>2:30 PM</u>	
Rainfall Ended (Time):	<u>3:53 PM</u>	Length of Storm (hr.): <u>1.5</u>
Total Rainfall (in):	<u>1.46"</u>	
End of last rainfall event:	Date: <u>7/10/2022</u>	
	Time: <u>6:53 PM</u>	
	Time since last rainfall (hr.) <u>188</u>	

Comments: Daily Rainfall Data - <https://www.weather.gov/wrh/Climate?wfo=bmx>  
Hourly Rainfall Data - [https://mesonet.agron.iastate.edu/request/download.phtml?network=AL\\_ASOS](https://mesonet.agron.iastate.edu/request/download.phtml?network=AL_ASOS)  
Alabaster Station used as reference

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 Birmingham, AL 35210  
 Phone: (205) 951-3400  
 www.emcbham.com

Municipal Consultants - Pelham  
 200 Century Park South  
 Suite 212  
 Birmingham, AL 35226

Lab Number: 20222131  
 Date Reported: 7/25/2022  
 Date Received: 7/18/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20222131-01</b>		<b>Description: Buck Creek Police Firing Range - Quarterly Storm Water</b>				
<b>Sampled: 7/18/2022 3:27:00 PM</b>						
Water Level		4.80	feet		07/18/22 15:27	cli
pH	SM 4500 H + B	7.68	SU		07/18/22 15:27	cli
Dissolved Oxygen	SM 4500HG	7.92	mg/L		07/18/22 15:27	cli
Temperature		79.3	°F		07/18/22 15:27	cli
E. Coli	IDEXX Colilert 18	5850	MPN/100mL	07/18/22 17:15	07/19/22 15:09	SB
Biochemical Oxygen Demand	SM 5210 B	*B (<2.00)	mg/L	07/18/22 18:10	07/23/22 12:37	DW
Total Suspended Solids	SM 2540 D	34.0	mg/L		07/19/22 10:26	DW
Total Dissolved Solids	SM 2540 C	140	mg/L	07/21/22 17:10	07/22/22 10:02	DW
Nitrogen, Nitrate/Nitrite	Chinchilla I-Reagent	1.97	mg/L		07/24/22 10:06	DW
Conductivity	SM 2510 B	245	µS/cm		07/19/22 16:07	SB
Hardness	SM 2340B	150	mg/L		07/19/22 16:10	SB
Turbidity	SM 2130 B	23.6	NTU		07/20/22 10:49	SB
Chemical Oxygen Demand	HACH 8000	*B (<20)	mg/L		07/19/22 16:04	SB
Phosphorus, Total	HACH 8190	0.08	mg/L		07/20/22 8:02	SB
Nitrogen, Ammonia	SM 4500 NH3 B+C	0.29	mg/L		07/20/22 12:45	JER
Nitrogen, Total Kjeldahl	PAI-DK01 + SM 450	0.57	mg/L	07/19/22 10:45	07/20/22 16:27	JER
Oil and Grease	EPA 1664 B	*B (<5.00)	mg/L		07/21/22 16:15	JER
Nitrogen, Total		2.54	mg/L		07/24/22 12:43	Cal



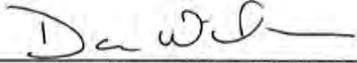
2607 Commerce Blvd.  
 Birmingham, AL 35210  
 Phone: (205) 951-3400  
 www.emcbham.com

Municipal Consultants - Pelham  
 200 Century Park South  
 Suite 212  
 Birmingham, AL 35226

Lab Number: 20222131  
 Date Reported: 7/25/2022  
 Date Received: 7/18/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
ADEM/EPA NODI code *B: result is below method detection limit Easy 1-Reagent Chinchilla method for measuring Nitrate/Nitrite EPA "Method for Chemical Analyses of Water and Waste" 600/4-79-020, Revised March 1983 HACH EPA Compliant Methods IDEXX Quanti-Tray 2000 MPN Colilert 18 Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998. Total Kjeldahl Nitrogen analysis performed in accordance with PAI-DK01 for block digestion and auto distillation. Titrimetric detection performed in accordance with SM 4500-NH3 C.						
Cal	Calculation	cli	Client	DW	Daneen Wilson	JER Joanna Rowlen
SB	Seyvon Brown					

Approved By   
 Daneen Wilson  
 Lab Manager

2132-100  
2131

**Chain of Custody Record**

2607 Commerce Boulevard  
Birmingham, AL 35210  
(205) 951-3400  
(800) 239-2837  
(205) 951-0808 FAX  
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ENVIRO MANAGEMENT CORP.

<b>CLIENT</b> Municipal Consultants, Inc. ADDRESS (STREET, CITY, ZIP) 200 Century Park S STE 212 Birmingham AL ATTENTION Andrew Golden SAMPLERS: (Signature) <i>Wells Garner</i>		P.O. # PROJECT NAME Pelham - Wet Weather Sampling - Quarterly	PHONE # ( 205 ) 822-0387	FAX # ( 205 ) 822-0386	TURN AROUND TIME <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> RUSH <input type="checkbox"/> PRIORITY ONE									
START TIME 7:18:22 pm 3:22 pm 3:27 pm	STOP TIME 3:27 pm 3:27 pm 3:27 pm	SPECIFIC LOCATION Buck Creek Police Firing Range	MATRIX H2O H2O H2O H2O	# OF CONTAINERS 1P 1P 1P 1G	PRESERVATIVE - E A B	BOD, TSS, Conductivity <input checked="" type="checkbox"/>	Hardness, Turbidity, TDS <input checked="" type="checkbox"/>	F. Coll. <input checked="" type="checkbox"/>	COD, TN (TKN, NO3/NO2) <input checked="" type="checkbox"/>	NH3, Total Phos (Hach) <input checked="" type="checkbox"/>	O&G <input checked="" type="checkbox"/>	REMARKS pH: 7.68 DO: 7.92 mg/L Temp: 79.3°F WL: 4.80	SAMPLES (✓)	
Relinquished by: (Signature) <i>Wells Garner</i>		Date/Time 11/18/22 5:06 pm	Received by: (Signature) <i>[Signature]</i>	Date/Time 11/18/22 1700	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time
Relinquished by: (Signature) <i>Wells Garner</i>		Date/Time 11/18/22 5:06 pm	Received for Laboratory by: (Signature) <i>[Signature]</i>	Date/Time 11/18/22 1700	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time

EColi Dilutions 50, 10, 1.0, 0.1 mL  
Include Count, Avg. Data with Results  
Total P - use method with lowest detection limit

\* A=H<sub>2</sub>SO<sub>4</sub>, B=HCL, C=HNO<sub>3</sub>, D=NaOH, E=Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>



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 Suite 212  
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Lab Number: 20222132  
 Date Reported: 7/25/2022  
 Date Received: 7/18/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20222132-01</b>		<b>Description: CVC Police Firing Range - Quarterly Storm Water</b>				
<b>Sampled: 7/18/2022 3:37:00 PM</b>						
pH	SM 4500 H + B	7.81	SU		07/18/22 15:37	cli
Dissolved Oxygen	SM 4500HG	7.79	mg/L		07/18/22 15:37	cli
Temperature		77.9	°F		07/18/22 15:37	cli
E. Coli	IDEXX Colilert 18	1300	MPN/100mL	07/18/22 17:15	07/19/22 15:09	SB
Biochemical Oxygen Demand	SM 5210 B	2.25	mg/L	07/18/22 18:10	07/23/22 12:37	DW
Total Suspended Solids	SM 2540 D	51.0	mg/L		07/19/22 10:26	DW
Total Dissolved Solids	SM 2540 C	150	mg/L	07/21/22 17:10	07/22/22 10:02	DW
Nitrogen, Nitrate/Nitrite	Chinchilla 1-Reagent	0.49	mg/L		07/24/22 10:06	DW
Conductivity	SM 2510 B	265	µS/cm		07/19/22 16:07	SB
Hardness	SM 2340B	190	mg/L		07/19/22 16:10	SB
Turbidity	SM 2130 B	37.2	NTU		07/20/22 10:50	SB
Chemical Oxygen Demand	HACH 8000	*B (<20)	mg/L		07/19/22 16:05	SB
Phosphorus, Total	HACH 8190	0.06	mg/L		07/20/22 8:02	SB
Nitrogen, Ammonia	SM 4500 NH3 B+C	*B (<0.14)	mg/L		07/20/22 12:51	JER
Nitrogen, Total Kjeldahl	PAI-DKO1 + SM 450	0.86	mg/L	07/20/22 11:15	07/20/22 16:45	JER
Oil and Grease	EPA 1664 B	*B (<5.00)	mg/L		07/21/22 17:10	JER
Nitrogen, Total		1.35	mg/L		07/24/22 12:44	Cal



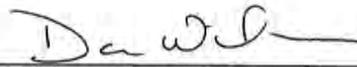
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Lab Number: 20222132  
 Date Reported: 7/25/2022  
 Date Received: 7/18/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
ADEM/EPA NODI code *B: result is below method detection limit						
Easy 1-Reagent Chinchilla method for measuring Nitrate/Nitrite						
EPA "Method for Chemical Analyses of Water and Waste" 600/4-79-020, Revised March 1983						
HACH EPA Compliant Methods						
IDEXX Quanti-Tray 2000 MPN Colilert 18						
Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998.						
Total Kjeldahl Nitrogen analysis performed in accordance with PAI-DK01 for block digestion and auto distillation. Titrimetric detection performed in accordance with SM 4500-NH3 C.						
Cal	Calculation	cli	Client	DW	Daneen Wilson	JER Joanna Rowlen
SB	Seyvon Brown					

Approved By   
 Daneen Wilson  
 Lab Manager



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**Chain of Custody Record**

2133 MW  
 2132

CLIENT <b>Municipal Consultants, Inc.</b>		P.O. #	PHONE # ( 205 ) 822-0387	FAX # ( 205 ) 822-0386	TURN AROUND TIME							
ADDRESS (STREET, CITY, ZIP) <b>200 Century Park S STE 212 Birmingham AL</b>		PROJECT NAME <b>Pelham - Wet Weather Sampling - Quarterly</b>										
ATTENTION <b>Andrew Golden</b>		MATRIX	# OF CONTAINERS	PRESERVATIVE	BOD, TSS, Conductivity	Hardness, Turbidity, TDS	E. Coli.	COD, TN (TKN, NO3/NO2)	NH3, Total Phos (Hach)	O&G	REMARKS	SAMPLES
START DATE	STOP DATE	SPECIFIC LOCATION	TIME COLLECTED	Q COMP	Q GRAB							
1.18.22 3:32 pm	7.18.22 3:37 pm	Cahaba Valley Creek	3:37pm	G	G	H2O	1P	-	X	X	7.81 7.79	(✓)
		Police Firing Range		G	G	H2O	1P	E	X	X	pH = 7.88 DO = 7.99 mg/L Temp = 77.9°F	✓
				G	G	H2O	1P	A		X		✓
				G	G	H2O	1G	B				✓
Relinquished by: (Signature) <i>Welch Garner</i>		Date/Time 7.18.22 1:50 pm	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Remarks			
Relinquished by: (Signature)		Date/Time	Received for Laboratory by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Remarks			
			<i>Welch Garner</i>	7.18.22 1:00					EColi Dilutions 50,10,1,0,0.1mL Include Count, Avg. Data with Results Total P - use method with lowest detection limit			

\* A=H<sub>2</sub>SO<sub>4</sub> B=HCL C=HNO<sub>3</sub> D=NaOH E=Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>



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 Birmingham, AL 35210  
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Lab Number: 20222133  
 Date Reported: 7/25/2022  
 Date Received: 7/18/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20222133-01</b>		<b>Description: Peavine Creek @ Hwy 11 Crossing - Quarterly Storm Water</b>				
<b>Sampled: 7/18/2022 2:58:00 PM</b>						
Water Level		6.45	feet		07/18/22 14:58	cli
pH	SM 4500 H + B	7.39	SU		07/18/22 14:58	cli
Dissolved Oxygen	SM 4500HG	7.84	mg/L		07/18/22 14:58	cli
Temperature		77.4	°F		07/18/22 14:58	cli
E. Coli	IDEXX Colilert 18	2750	MPN/100mL	07/18/22 17:15	07/19/22 15:09	SB
Biochemical Oxygen Demand	SM 5210 B	*B (<2.00)	mg/L	07/18/22 18:10	07/23/22 12:37	DW
Total Suspended Solids	SM 2540 D	71.0	mg/L		07/19/22 10:26	DW
Total Dissolved Solids	SM 2540 C	58	mg/L	07/21/22 17:10	07/22/22 10:02	DW
Nitrogen, Nitrate/Nitrite	Chinchilla 1-Reagent	0.15	mg/L		07/24/22 10:06	DW
Conductivity	SM 2510 B	91	µS/cm		07/19/22 16:08	SB
Hardness	SM 2340B	51	mg/L		07/19/22 16:10	SB
Turbidity	SM 2130 B	50.1	NTU		07/20/22 10:50	SB
Chemical Oxygen Demand	HACH 8000	20	mg/L		07/19/22 16:05	SB
Phosphorus, Total	HACH 8190	0.02	mg/L		07/20/22 8:02	SB
Nitrogen, Ammonia	SM 4500 NH3 B+C	0.29	mg/L		07/20/22 12:57	JER
Nitrogen, Total Kjeldahl	PAI-DK01 + SM 450	0.57	mg/L	07/20/22 11:15	07/20/22 16:51	JER
Oil and Grease	EPA 1664 B	*B (<5.00)	mg/L		07/21/22 17:10	JER
Nitrogen, Total		0.72	mg/L		07/24/22 12:44	Cal



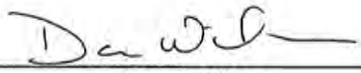
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Lab Number: 20222133  
 Date Reported: 7/25/2022  
 Date Received: 7/18/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
ADEM/EPA NODI code *B: result is below method detection limit						
Easy 1-Reagent Chinchilla method for measuring Nitrate/Nitrite						
EPA "Method for Chemical Analyses of Water and Waste" 600/4-79-020, Revised March 1983						
HACH EPA Compliant Methods						
IDEXX Quanti-Tray 2000 MPN Colilert 18						
Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998.						
Total Kjeldahl Nitrogen analysis performed in accordance with PAI-DK01 for block digestion and auto distillation. Titrimetric detection performed in accordance with SM 4500-NH3 C.						
Cal	Calculation	cli	Client	DW	Daneen Wilson	JER Joanna Rowlen
SB	Seyvon Brown					

Approved By   
 Daneen Wilson  
 Lab Manager





2607 Commerce Blvd.  
 Birmingham, AL 35210  
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Lab Number: 20220802  
 Date Reported: 3/27/2022  
 Date Received: 3/15/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20220802-01</b>		<b>Description: Buck Creek Police Firing Range - Quarterly Storm Water</b>				
<b>Sampled: 3/15/2022 1:37:00 PM</b>						
Water Level		5.50	feet		03/15/22 13:37	cli
pH	SM 4500 H + B	7.29	SU		03/15/22 13:37	cli
Dissolved Oxygen	SM 4500HG	10.69	mg/L		03/15/22 13:37	cli
Temperature		57.0	°F		03/15/22 13:37	cli
E. Coli	IDEXX Colilert 18	900	MPN/100mL	03/15/22 17:05	03/16/22 15:01	SB
Biochemical Oxygen Demand	SM 5210 B	*B (<2.00)	mg/L	03/16/22 17:08	03/21/22 14:39	DW
Total Suspended Solids	SM 2540 D	8.00	mg/L		03/16/22 15:04	DW
Total Dissolved Solids	SM 2540 C	190	mg/L	03/18/22 12:42	03/19/22 10:05	DW
Nitrogen, Nitrate/Nitrite	Chinchilla I-Reagent	1.33	mg/L		03/19/22 12:20	DW
Conductivity	SM 2510 B	239	µS/cm		03/16/22 16:37	SB
Hardness	EPA 200.7	140	mg/L		03/16/22 16:36	SB
Turbidity	SM 2130 B	6	NTU		03/16/22 16:38	SB
Chemical Oxygen Demand	HACH 8000	*B (<20)	mg/L		03/15/22 17:20	SB
Phosphorus, Total	HACH 8190	0.05	mg/L		03/15/22 17:04	SB
Nitrogen, Ammonia	SM 4500 NH3 B+C	*B (<0.14)	mg/L		03/16/22 12:55	JER
Nitrogen, Total Kjeldahl	PAI-DKO1 + SM 450	1.10	mg/L	03/16/22 11:20	03/16/22 16:39	JER
Oil and Grease	EPA 1664 B	*B (<5.00)	mg/L		03/17/22 16:15	JER
Nitrogen, Total		2.43	mg/L		03/19/22 14:11	Cal



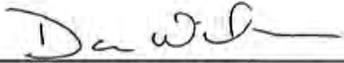
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Lab Number: 20220802  
 Date Reported: 3/27/2022  
 Date Received: 3/15/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
ADEM/EPA NODI code *B: result is below detection limit						
Easy I-Reagent Chinchilla method for measuring Nitrate/Nitrite						
EPA "Method for Chemical Analyses of Water and Waste" 600/4-79-020, Revised March 1983						
HACH EPA Compliant Methods						
IDEXX Quanti-Tray 2000 MPN Colilert 18						
Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998.						
Total Kjeldahl Nitrogen analysis performed in accordance with PAI-DK01 for block digestion and auto distillation. Titrimetric detection performed in accordance with SM 4500-NH3 C.						
Cal	Calculation	cli	Client	DW	Daneen Wilson	JER Joanna Rowlen
SB	Seyvon Brown					

Approved By   
 Daneen Wilson  
 Lab Manager





2607 Commerce Blvd.  
 Birmingham, AL 35210  
 Phone: (205) 951-3400  
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Lab Number: 20220803  
 Date Reported: 3/27/2022  
 Date Received: 3/15/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20220803-01</b>		<b>Description: CVC Police Firing Range - Quarterly Storm Water</b>				
<b>Sampled: 3/15/2022 1:48:00 PM</b>						
pH	SM 4500 H + B	7.38	SU		03/15/22 13:48	cli
Dissolved Oxygen	SM 4500HG	10.28	mg/L		03/15/22 13:48	cli
Temperature		57.8	°F		03/15/22 13:48	cli
E. Coli	IDEXX Colilert 18	200	MPN/100mL	03/15/22 17:05	03/16/22 15:01	SB
Biochemical Oxygen Demand	SM 5210 B	*B (<2.00)	mg/L	03/16/22 17:08	03/21/22 14:39	DW
Total Suspended Solids	SM 2540 D	6.00	mg/L		03/16/22 15:04	DW
Total Dissolved Solids	SM 2540 C	160	mg/L	03/18/22 12:42	03/19/22 10:05	DW
Nitrogen, Nitrate/Nitrite	Chinchilla 1-Reagent	0.37	mg/L		03/19/22 12:20	DW
Conductivity	SM 2510 B	206	µS/cm		03/16/22 16:37	SB
Hardness	EPA 200.7	120	mg/L		03/16/22 16:36	SB
Turbidity	SM 2130 B	7	NTU		03/16/22 16:38	SB
Chemical Oxygen Demand	HACH 8000	*B (<20)	mg/L		03/15/22 17:20	SB
Phosphorus, Total	HACH 8190	0.03	mg/L		03/15/22 17:05	SB
Nitrogen, Ammonia	SM 4500 NH3 B+C	0.28	mg/L		03/16/22 13:01	JER
Nitrogen, Total Kjeldahl	PAI-DK01 + SM 450	0.28	mg/L	03/16/22 11:20	03/16/22 16:45	JER
Oil and Grease	EPA 1664 B	*B (<5.00)	mg/L		03/17/22 16:15	JER
Nitrogen, Total		0.65	mg/L		03/19/22 14:12	Cal





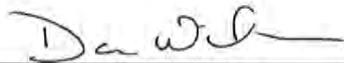
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Lab Number: 20220803  
 Date Reported: 3/27/2022  
 Date Received: 3/15/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
ADEM/EPA NODI code *B: result is below detection limit						
Easy 1-Reagent Chinchilla method for measuring Nitrate/Nitrite						
EPA "Method for Chemical Analyses of Water and Waste" 600/4-79-020, Revised March 1983						
HACH EPA Compliant Methods						
IDEXX Quanti-Tray 2000 MPN Colilert 18						
Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998.						
Total Kjeldahl Nitrogen analysis performed in accordance with PA1-DK01 for block digestion and auto distillation. Titrimetric detection performed in accordance with SM 4500-NH3 C.						
Cal	Calculation	cli	Client	DW	Daneen Wilson	JER Joanna Rowlen
SB	Seyvon Brown					

Approved By   
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 Lab Manager



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Lab Number: 20220804  
 Date Reported: 3/27/2022  
 Date Received: 3/15/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20220804-01</b>		<b>Description: Peavine Creek @ Hwy 11 - Quarterly Storm Water</b>				
<b>Sampled: 3/15/2022 1:07:00 PM</b>						
Water Level		6.95	feet		03/15/22 13:07	cli
pH	SM 4500 H + B	6.53	SU		03/15/22 13:07	cli
Dissolved Oxygen	SM 4500HG	10.13	mg/L		03/15/22 13:07	cli
Temperature		56.0	°F		03/15/22 13:07	cli
E. Coli	IDEXX Colilert 18	300	MPN/100mL	03/15/22 17:05	03/16/22 15:01	SB
Biochemical Oxygen Demand	SM 5210 B	*B (<2.00)	mg/L	03/16/22 17:08	03/21/22 14:39	DW
Total Suspended Solids	SM 2540 D	25.0	mg/L		03/16/22 15:04	DW
Total Dissolved Solids	SM 2540 C	80.0	mg/L	03/18/22 12:42	03/19/22 10:05	DW
Nitrogen, Nitrate/Nitrite	Chinchilla 1-Reagent	0.10	mg/L		03/19/22 12:20	DW
Conductivity	SM 2510 B	61	µS/cm		03/16/22 16:37	SB
Hardness	EPA 200.7	51	mg/L		03/16/22 16:36	SB
Turbidity	SM 2130 B	27	NTU		03/16/22 16:38	SB
Chemical Oxygen Demand	HACH 8000	*B (<20)	mg/L		03/15/22 17:20	SB
Phosphorus, Total	HACH 8190	0.04	mg/L		03/15/22 17:05	SB
Nitrogen, Ammonia	SM 4500 NH3 B+C	*B (<0.14)	mg/L		03/16/22 13:07	JER
Nitrogen, Total Kjeldahl	PAI-DKO1 + SM 450	0.55	mg/L	03/16/22 11:20	03/16/22 16:50	JER
Oil and Grease	EPA 1664 B	*B (<5.00)	mg/L		03/17/22 16:15	JER
Nitrogen, Total		0.65	mg/L		03/19/22 14:12	Cal



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Lab Number: 20220804  
 Date Reported: 3/27/2022  
 Date Received: 3/15/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
ADEM/EPA NODI code *B: result is below detection limit						
Easy 1-Reagent Chinchilla method for measuring Nitrate/Nitrite						
EPA "Method for Chemical Analyses of Water and Waste" 600/4-79-020, Revised March 1983						
HACH EPA Compliant Methods						
IDEXX Quanti-Tray 2000 MPN Colilert 18						
Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998.						
Total Kjeldahl Nitrogen analysis performed in accordance with PAI-DK01 for block digestion and auto distillation. Titrimetric detection performed in accordance with SM 4500-NH3 C.						
Cal	Calculation	cli	Client	DW	Daneen Wilson	JER Joanna Rowlen
SB	Seyvon Brown					

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 Daneen Wilson  
 Lab Manager





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 200 Century Park South  
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Lab Number: 20220999  
 Date Reported: 4/12/2022  
 Date Received: 4/5/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20220999-01</b>		<b>Description: Buck Creek Police Firing Range - Quarterly SW</b>				
<b>Sampled: 4/5/2022 10:45:00 AM</b>						
Water Level		8.70	feet		04/05/22 10:45	cli
pH	SM 4500 H + B	6.94	SU		04/05/22 10:45	cli
Dissolved Oxygen	SM 4500HG	9.09	mg/L		04/05/22 10:45	cli
Temperature		61.9	°F		04/05/22 10:45	cli
E. Coli	IDEXX Colilert 18	4650	MPN/100mL	04/05/22 16:30	04/06/22 14:04	SB
Biochemical Oxygen Demand	SM 5210 B	4.21	mg/L	04/05/22 18:53	04/10/22 11:53	DW
Total Suspended Solids	SM 2540 D	118	mg/L		04/06/22 13:24	DW
Total Dissolved Solids	SM 2540 C	74.0	mg/L	04/09/22 11:10	04/10/22 9:53	DW
Nitrogen, Nitrate/Nitrite	Chinchilla 1-Reagent	0.46	mg/L		04/11/22 7:39	DW
Conductivity	SM 2510 B	160	µS/cm		04/07/22 17:40	SB
Hardness	EPA 200.7	100	mg/L		04/07/22 17:41	SB
Turbidity	SM 2130 B	75	NTU		04/07/22 17:40	SB
Chemical Oxygen Demand	HACH 8000	71	mg/L		04/08/22 9:43	SB
Phosphorus, Total	HACH 8190	0.17	mg/L		04/08/22 9:55	SB
Nitrogen, Ammonia	SM 4500 NH3 B+C	0.28	mg/L		04/06/22 13:04	JER
Nitrogen, Total Kjeldahl	PAI-DKO1 + SM 450	0.85	mg/L	04/06/22 11:40	04/08/22 13:41	JER
Oil and Grease	EPA 1664 B	*B (<5.00)	mg/L		04/07/22 14:15	JER
Nitrogen, Total		1.31	mg/L		04/11/22 9:16	Cal





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Lab Number: 20221000  
 Date Reported: 4/12/2022  
 Date Received: 4/5/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20221000-01</b>		<b>Description: Cahaba Valley Creek Police Firing Range - Quarterly SW</b>				
<b>Sampled: 4/5/2022 11:00:00 AM</b>						
pH	SM 4500 H + B	7.10	SU		04/05/22 11:00	cli
Dissolved Oxygen	SM 4500HG	8.93	mg/L		04/05/22 11:00	cli
Temperature		62.4	°F		04/05/22 11:00	cli
E. Coli	IDEXX Colilert 18	7000	MPN/100mL	04/05/22 16:30	04/06/22 14:04	SB
Biochemical Oxygen Demand	SM 5210 B	4.54	mg/L	04/05/22 18:53	04/10/22 11:53	DW
Total Suspended Solids	SM 2540 D	95.0	mg/L		04/06/22 13:24	DW
Total Dissolved Solids	SM 2540 C	82.0	mg/L	04/09/22 11:10	04/10/22 9:53	DW
Nitrogen, Nitrate/Nitrite	Chinchilla 1-Reagent	0.19	mg/L		04/11/22 7:39	DW
Conductivity	SM 2510 B	133	µS/cm		04/07/22 17:40	SB
Hardness	EPA 200.7	86	mg/L		04/07/22 17:41	SB
Turbidity	SM 2130 B	72	NTU		04/07/22 17:40	SB
Chemical Oxygen Demand	HACH 8000	58	mg/L		04/08/22 9:43	SB
Phosphorus, Total	HACH 8190	*B (<0.02)	mg/L		04/08/22 9:55	SB
Nitrogen, Ammonia	SM 4500 NH3 B+C	0.28	mg/L		04/06/22 13:07	JER
Nitrogen, Total Kjeldahl	PAI-DKO1 + SM 450	0.85	mg/L	04/06/22 11:40	04/08/22 13:46	JER
Oil and Grease	EPA 1664 B	*B (<5.00)	mg/L		04/07/22 14:15	JER
Nitrogen, Total		1.04	mg/L		04/11/22 9:17	Cal



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Lab Number: 20220999  
 Date Reported: 4/12/2022  
 Date Received: 4/5/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
ADEM/EPA NODI code *B: result is below detection limit						
Easy 1-Reagent Chinchilla method for measuring Nitrate/Nitrite						
EPA "Method for Chemical Analyses of Water and Waste" 600/4-79-020, Revised March 1983						
HACH EPA Compliant Methods						
IDEXX Quanti-Tray 2000 MPN Colilert 18						
Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998.						
Total Kjeldahl Nitrogen analysis performed in accordance with PAI-DK01 for block digestion and auto distillation. Titrimetric detection performed in accordance with SM 4500-NH3 C.						
Cal	Calculation	cli	Client	DW	Daneen Wilson	JER Joanna Rowlen
SB	Seyvon Brown					

Approved By   
 Daneen Wilson  
 Lab Manager



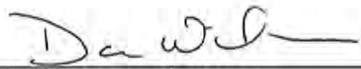
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Lab Number: 20221000  
 Date Reported: 4/12/2022  
 Date Received: 4/5/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
ADEM/EPA NODI code *B: result is below detection limit						
Easy 1-Reagent Chinchilla method for measuring Nitrate/Nitrite						
EPA "Method for Chemical Analyses of Water and Waste" 600/4-79-020, Revised March 1983						
HACH EPA Compliant Methods						
IDEXX Quanti-Tray 2000 MPN Colilert 18						
Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998.						
Total Kjeldahl Nitrogen analysis performed in accordance with PAI-DK01 for block digestion and auto distillation. Titrimetric detection performed in accordance with SM 4500-NH3 C.						
Cal	Calculation	cli	Client	DW	Daneen Wilson	JER Joanna Rowlen
SB	Seyvon Brown					

Approved By   
 Daneen Wilson  
 Lab Manager

1000

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CLIENT <b>Municipal Consultants, Inc.</b> ADDRESS (STREET, CITY, ZIP) 200 Century Park S Suite 212 Birmingham, AL ATTENTION Andrew Golden SAMPLERS: (Signature) <i>Wells Garner</i>		P.O. # PROJECT NAME Pelham - Wet Weather Sampling - Quarterly	PHONE # ( 205 ) 822-0386	FAX # (     )     )	TURN AROUND TIME <input type="checkbox"/> STANDARD <input type="checkbox"/> RUSH <input type="checkbox"/> PRIORITY ONE							
START DATE 4-5-22 STOP DATE 4-5-22 TIME 11:00 am	SPECIFIC LOCATION Cahaba Valley Creek Police Firing Range	MATRIX H2O H2O H2O H2O	# OF CONTAINERS 1P 1P 1P 1G	PRESERVATIVE - E A B	BOD, TSS, Conductivity <input checked="" type="checkbox"/>	Hardness, Turbidity, TDS <input checked="" type="checkbox"/>	F. Coll <input checked="" type="checkbox"/>	COD, TN, (TKN, NO3/NO) <input checked="" type="checkbox"/>	NH3, Total Phos (Hach) <input checked="" type="checkbox"/>	O&G <input checked="" type="checkbox"/>	REMARKS pH: 7.10 DO: 8.93 mg/L Temp: 62.4°F	SAMPLES (✓)
Relinquished by: (Signature) <i>Wells Garner</i>	Date/Time 4/5/22 11:05 am	Received by: (Signature) <i>Haley Jones</i>	Date/Time 4/5/22 1:00 pm	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Remarks E. Coli Dilutions 50, 10, 1.0, 0.11 mL Include Count, Avg. Data with Results Total P - use method with lowest detection limit

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Lab Number: 20221001  
 Date Reported: 4/12/2022  
 Date Received: 4/5/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20221001-01</b>		<b>Description: Peavine Creek at Hwy. 11 Crossing - Quarterly SW</b>				
<b>Sampled: 4/5/2022 10:25:00 AM</b>						
Water Level		7.98	feet		04/05/22 10:25	cli
pH	SM 4500 H + B	6.47	SU		04/05/22 10:25	cli
Dissolved Oxygen	SM 4500HG	9.29	mg/L		04/05/22 10:25	cli
Temperature		60.6	°F		04/05/22 10:25	cli
E. Coli	IDEXX Colilert 18	4650	MPN/100mL	04/05/22 16:30	04/06/22 14:04	SB
Biochemical Oxygen Demand	SM 5210 B	4.73	mg/L	04/05/22 18:53	04/10/22 11:53	DW
Total Suspended Solids	SM 2540 D	733	mg/L		04/06/22 13:24	DW
Total Dissolved Solids	SM 2540 C	82.0	mg/L	04/09/22 11:10	04/10/22 9:53	DW
Nitrogen, Nitrate/Nitrite	Chinchilla 1-Reagent	0.07	mg/L		04/11/22 7:39	DW
Conductivity	SM 2510 B	53	µS/cm		04/07/22 17:40	SB
Hardness	EPA 200.7	51	mg/L		04/07/22 17:41	SB
Turbidity	SM 2130 B	425	NTU		04/07/22 17:40	SB
Chemical Oxygen Demand	HACH 8000	73	mg/L		04/08/22 9:43	SB
Phosphorus, Total	HACH 8190	0.79	mg/L		04/08/22 9:55	SB
Nitrogen, Ammonia	SM 4500 NH3 B+C	0.55	mg/L		04/06/22 13:14	JER
Nitrogen, Total Kjeldahl	PAI-DKO1 + SM 450	2.55	mg/L	04/06/22 11:40	04/08/22 13:53	JER
Oil and Grease	EPA 1664 B	*B (<5.00)	mg/L		04/07/22 15:03	JER
Nitrogen, Total		2.62	mg/L		04/11/22 9:17	Cal



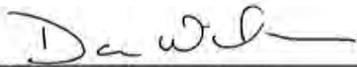
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Lab Number: 20221001  
 Date Reported: 4/12/2022  
 Date Received: 4/5/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
ADEM/EPA NODI code *B: result is below detection limit						
Easy 1-Reagent Chinchilla method for measuring Nitrate/Nitrite						
EPA "Method for Chemical Analyses of Water and Waste" 600/4-79-020, Revised March 1983						
HACH EPA Compliant Methods						
IDEXX Quanti-Tray 2000 MPN Colilert 18						
Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998.						
Total Kjeldahl Nitrogen analysis performed in accordance with PAI-DK01 for block digestion and auto distillation. Titrimetric detection performed in accordance with SM 4500-NH3 C.						
Cal	Calculation	cli	Client	DW	Daneen Wilson	JER Joanna Rowlen
SB	Seyvon Brown					

Approved By   
 Daneen Wilson  
 Lab Manager



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CLIENT Municipal Consultants, Inc.

ADDRESS (STREET, CITY, ZIP)

200 Century Park S Suite 212 Birmingham, AL

ATTENTION

Andrew Golden

SAMPLERS: (Signature)

*Wells Garner*

START DATE	STOP DATE	TIME COLLECTED	C=COMP	G=GRAB	SPECIFIC LOCATION	MATRIX	# OF CONTAINERS	PRESERVATIVE	BOD, TSS, Conductivity	Hardness, Turbidity, TDS	E. Coll	COD, TN, (TKN, NO3/NO)	NH3, Total Phos (Hach)	O&G	REMARKS	SAMPLER TYPE
4-22-10	10:25 am	10:25 am	G	G	Peavine Creek	H2O	1P	-	X	X						(✓)
			G	G	at Hwy. 11 Crossing	H2O	1P	E			X				pH = 6.47 DO = 9.29 mg/L Temp = 60.6°F WL = 7.98'	✓
			G	G		H2O	1P	A			X					✓
			G	G		H2O	1G	B								✓

PHONE # (205) 822-0386  
 FAX # ( )  
 PROJECT NAME Pelham - Wet Weather Sampling - Quarterly

TURN AROUND TIME  
 STANDARD  
 RUSH  
 PRIORITY ONE

Relinquished by: (Signature) *Wells Garner* Date/Time 4/22/10 12:15 pm  
 Received by: (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Relinquished by: (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Received by: (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_

Remarks: E. Coli Dilutions 50, 10, 1.0, 0.11 mL  
 Include Count, Avg. Data with Results  
 Total P - use method with lowest detection limit

4/22/10 11:00 pm

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Lab Number: 20213602  
 Date Reported: 12/20/2021  
 Date Received: 12/6/2021

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20213602-01</b>		<b>Description: BC Police Firing Range - Quarterly Storm Water</b>				
<b>Sampled: 12/6/2021 11:04:00 AM</b>						
Water Level		5.45	feet		12/06/21 10:50	cli
pH	SM 4500 H + B	7.12	SU		12/06/21 10:50	cli
Dissolved Oxygen	SM 4500HG	8.74	mg/L		12/06/21 10:50	cli
Temperature		62.3	°F		12/06/21 10:50	cli
E. Coli	IDEXX Colilert 18	22400	MPN/100mL	12/06/21 17:12	12/07/21 12:27	DW
Biochemical Oxygen Demand	SM 5210 B	*B (<2.00)	mg/L	12/07/21 13:09	12/12/21 14:25	DW
Total Suspended Solids	SM 2540 D	33.0	mg/L		12/06/21 17:19	DW
Total Dissolved Solids	SM 2540 C	138	mg/L	12/11/21 12:52	12/12/21 13:00	DW
Nitrogen, Nitrate/Nitrite	Chinchilla 1-Reagent	1.87	mg/L		12/11/21 15:08	DW
Conductivity	SM 2510 B	206	µS/cm		12/16/21 16:28	SB
Hardness	EPA 200.7	72	mg/L		12/09/21 18:42	SB
Turbidity	SM 2130 B	26	NTU		12/16/21 16:27	SB
Chemical Oxygen Demand	HACH 8000	39	mg/L		12/09/21 15:07	SB
Phosphorus, Total	HACH 8190	0.07	mg/L		12/09/21 18:10	SB
Nitrogen, Ammonia	SM 4500 NH3 B+C	0.28	mg/L		12/08/21 13:32	JER
Nitrogen, Total Kjeldahl	PAI-DK01 + SM 450	0.28	mg/L	12/09/21 12:15	12/10/21 16:45	JER
Oil and Grease	EPA 1664 B	*B (<5.00)	mg/L		12/09/21 14:35	JER
Nitrogen, Total		2.15	mg/L		12/13/21 11:57	Cal



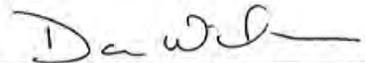
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Lab Number: 20213602  
 Date Reported: 12/20/2021  
 Date Received: 12/6/2021

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
ADEM/EPA NODI code *B: result is below detection limit Easy 1-Reagent Chinchilla method for measuring Nitrate/Nitrite EPA "Method for Chemical Analyses of Water and Waste" 600/4-79-020, Revised March 1983 HACH EPA Compliant Methods IDEXX Quanti-Tray 2000 MPN Colilert 18 Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998. Total Kjeldahl Nitrogen analysis performed in accordance with PAL-DK01 for block digestion and auto distillation. Titrimetric detection performed in accordance with SM 4500-NH3 C.						
Cal	Calculation	cli	Client	DW	Daneen Wilson	JER Joanna Rowlen
SB	Seyvon Brown					

Approved By   
 Daneen Wilson  
 Lab Manager





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Lab Number: 20213603  
 Date Reported: 12/20/2021  
 Date Received: 12/6/2021

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20213603-01</b>		<b>Description: CVC Police Firing Range - Quarterly Storm Water</b>				
<b>Sampled: 12/6/2021 11:15:00 AM</b>						
pH	SM 4500 H + B	7.63	SU		12/06/21 11:10	cli
Dissolved Oxygen	SM 4500HG	8.54	mg/L		12/06/21 11:10	cli
Temperature		61.7	°F		12/06/21 11:10	cli
E. Coli	IDEXX Colilert 18	2240	MPN/100mL	12/06/21 17:12	12/07/21 12:27	DW
Biochemical Oxygen Demand	SM 5210 B	2.09	mg/L	12/07/21 13:09	12/12/21 14:25	DW
Total Suspended Solids	SM 2540 D	114	mg/L		12/06/21 17:19	DW
Total Dissolved Solids	SM 2540 C	154	mg/L	12/11/21 12:52	12/12/21 13:00	DW
Nitrogen, Nitrate/Nitrite	Chinchilla 1-Reagent	0.32	mg/L		12/11/21 15:08	DW
Conductivity	SM 2510 B	250	µS/cm		12/16/21 16:28	SB
Hardness	EPA 200.7	97	mg/L		12/09/21 18:42	SB
Turbidity	SM 2130 B	39	NTU		12/16/21 16:27	SB
Chemical Oxygen Demand	HACH 8000	41	mg/L		12/09/21 15:07	SB
Phosphorus, Total	HACH 8190	0.08	mg/L		12/09/21 18:10	SB
Nitrogen, Ammonia	SM 4500 NH3 B+C	*B (<0.14)	mg/L		12/08/21 13:38	JER
Nitrogen, Total Kjeldahl	PAI-DKO1 + SM 450	0.28	mg/L	12/10/21 0:00	12/10/21 17:03	JER
Oil and Grease	EPA 1664 B	*B (<5.00)	mg/L		12/09/21 15:15	JER
Nitrogen, Total		0.60	mg/L		12/13/21 11:58	Cal



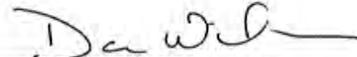
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Lab Number: 20213603  
 Date Reported: 12/20/2021  
 Date Received: 12/6/2021

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
ADEM/EPA NODI code *B; result is below detection limit Easy 1-Reagent Chinchilla method for measuring Nitrate/Nitrite EPA "Method for Chemical Analyses of Water and Waste" 600/4-79-020, Revised March 1983 HACH EPA Compliant Methods IDEXX Quanti-Tray 2000 MPN Colilert 18 Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998. Total Kjeldahl Nitrogen analysis performed in accordance with PAI-DK01 for block digestion and auto distillation. Titrimetric detection performed in accordance with SM 4500-NH3 C.						
Cal	Calculation	cli	Client	DW	Daneen Wilson	JER Joanna Rowlen
SB	Seyvon Brown					

Approved By   
 Daneen Wilson  
 Lab Manager

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ENVIRO MANAGEMENT CORP.

CLIENT <b>Municipal Consultants, Inc.</b>		P.O. #	PHONE # ( 205 ) 822-0387	FAX # ( 205 ) 822-0386	TURN AROUND TIME STANDARD RUSH PRIORITY ONE														
ADDRESS (STREET, CITY, ZIP) <b>200 Century Park S STE 212 Birmingham AL</b>		PROJECT NAME <b>Pelham - Wet Weather Sampling - Quarterly</b>																	
ATTENTION <b>Andrew Golden</b>		# OF CONTAINERS	PREP	RESERVE	ACTIVE														
SAMPLERS: (Signature)		MATRIX	BOD, TSS, Conductivity	Hardness, Turbidity, TDS	E. Coll.														
					COD, TN (TKN, NO3/NO2)														
					NH3, Total Phos (Hach)														
					O&G														
					REMARKS														
START DATE	STOP DATE	TIME COLLECTED	C=COMP	G=GRAB	SPECIFIC LOCATION	MATRIX	# OF CONTAINERS	PREP	RESERVE	ACTIVE	BOD, TSS, Conductivity	Hardness, Turbidity, TDS	E. Coll.	COD, TN (TKN, NO3/NO2)	NH3, Total Phos (Hach)	O&G	REMARKS	SAMPLERS	
12.6.21 11:10 am	12.6.21 11:15 am	11:15 am	G	G	Cahaba Valley Creek	H2O	1P	-			X								(✓)
12.6.21 11:10 am	12.6.21 11:15 am	11:15 am	G	G	Police Firing Range	H2O	1P	E					X						pH = 7.63, DO = 8.54 mg/L Temp = 61.7° F
12.6.21 11:10 am	12.6.21 11:15 am	11:15 am	G	G		H2O	1P	A					X						
12.6.21 11:10 am	12.6.21 11:15 am	11:15 am	G	G		H2O	1G	B						X					

Relinquished by: (Signature) <i>Wells Garner</i>	Date/Time 12.6.21 12:54 pm	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature) <i>Haley Jones</i>	Date/Time 12.6.21 12:55 pm

Remarks  
 EColi Dilutions 50,10,1,0,0.1mL  
 Include Count, Avg. Data with Results  
 Total P - use method with lowest detection limit



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Lab Number: 20213604  
 Date Reported: 12/20/2021  
 Date Received: 12/6/2021

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20213604-01</b>		<b>Description: Peavine Creek @ Hwy 11 - Quarterly Storm Water</b>				
<b>Sampled: 12/6/2021 11:46:00 AM</b>						
Water Level		6.75	feet		12/06/21 11:41	cli
pH	SM 4500 H + B	6.76	SU		12/06/21 11:41	cli
Dissolved Oxygen	SM 4500HG	8.78	mg/L		12/06/21 11:41	cli
Temperature		60.7	°F		12/06/21 11:41	cli
E. Coli	IDEXX Colilert 18	18420	MPN/100mL	12/06/21 17:12	12/07/21 12:27	DW
Biochemical Oxygen Demand	SM 5210 B	4.66	mg/L	12/07/21 13:09	12/12/21 14:25	DW
Total Suspended Solids	SM 2540 D	698	mg/L		12/06/21 17:19	DW
Total Dissolved Solids	SM 2540 C	102	mg/L	12/11/21 12:52	12/12/21 13:00	DW
Nitrogen, Nitrate/Nitrite	Chinchilla 1-Reagent	0.13	mg/L		12/11/21 15:08	DW
Conductivity	SM 2510 B	93	µS/cm		12/16/21 16:28	SB
Hardness	EPA 200.7	35	mg/L		12/09/21 18:42	SB
Turbidity	SM 2130 B	892	NTU		12/16/21 16:27	SB
Chemical Oxygen Demand	HACH 8000	102	mg/L		12/09/21 15:07	SB
Phosphorus, Total	HACH 8190	0.79	mg/L		12/09/21 18:11	SB
Nitrogen, Ammonia	SM 4500 NH3 B+C	*B (<0.14)	mg/L		12/08/21 13:45	JER
Nitrogen, Total Kjeldahl	PAI-DKO1 + SM 450	1.65	mg/L	12/10/21 0:00	12/10/21 17:08	JER
Oil and Grease	EPA 1664 B	*B (<5.00)	mg/L		12/09/21 15:15	JER
Nitrogen, Total		1.78	mg/L		12/13/21 11:58	Cal



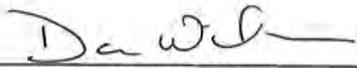
2607 Commerce Blvd.  
 Birmingham, AL 35210  
 Phone: (205) 951-3400  
 www.emcbham.com

Municipal Consultants - Pelham  
 200 Century Park South  
 Suite 212  
 Birmingham, AL 35226

Lab Number: 20213604  
 Date Reported: 12/20/2021  
 Date Received: 12/6/2021

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
ADEM/EPA NODI code *B: result is below detection limit Easy 1-Reagent Chinchilla method for measuring Nitrate/Nitrite EPA "Method for Chemical Analyses of Water and Waste" 600/4-79-020, Revised March 1983 HACH EPA Compliant Methods IDEXX Quanti-Tray 2000 MPN Colilert 18 Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998. Total Kjeldahl Nitrogen analysis performed in accordance with PAI-DK01 for block digestion and auto distillation. Titrimetric detection performed in accordance with SM 4500-NH3 C.						
Cal	Calculation	cli	Client	DW	Daneen Wilson	JER Joanna Rowlen
SB	Seyvon Brown					

Approved By   
 Daneen Wilson  
 Lab Manager



**APPENDIX B**

TMDL Monitoring Results  
&  
Representation

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City of Pelham MS4  
 Stormwater Management Program  
 2021-2022 TMDL Monitoring Results - WINTER

<b>BUCS-4 - Holland Lakes Subdivision</b>							Upstream
Date	TSS (mg/L)	Total PO <sub>4</sub> (mg/L)	pH*	Dissolved Oxygen* (mg/L)	Temperature* (°F)	E. Coli (col/100mL)	Geomean (E.Coli Only)
2/15/2022	3	0.17	7.47	10.70	53.9	150	
2/17/2022	3	0.18	7.52	9.42	59.3	300	
2/22/2022	8	0.23	7.23	9.28	58.1	900	
2/24/2022	5	0.26	7.34	9.34	61.7	250	206
3/1/2022	5	0.21	7.22	10.20	55.9	50	
3/3/2022	3	0.14	7.43	10.30	61.5	150	
Average	5	0.20	7.37	9.87	58.4		

<b>Buck Creek - Police Firing Range</b>							Downstream
Date	TSS (mg/L)	Total PO <sub>4</sub> (mg/L)	pH*	Dissolved Oxygen* (mg/L)	Temperature* (°F)	E. Coli (col/100mL)	Geomean (E.Coli Only)
2/15/2022	3	0.11	7.54	11.60	53.1	50	
2/17/2022	<1	0.14	7.63	9.97	59.7	100	
2/22/2022	39	0.14	6.96	9.96	56.9	600	
2/24/2022	11	0.11	7.19	9.63	60.9	250	172
3/1/2022	5	0.12	7.72	10.98	54.7	200	
3/3/2022	6	0.10	7.85	10.60	62.7	<50	
Average	11	0.12	7.48	10.46	58.0		

Notes:

1. \*Indicates field measured parameters
2. Fish & Wildlife Classification dictates E.Coli criteria as follows: From May-Oct. Single Sample limit of 298 col/100 mL and Geomean of 126 col/100 mL; from Nov.-April Single Sample limit of 2,507 col/100 mL and Geomean of 548 col/100 mL
3. TSS Target from 2013 Cahaba River Siltation TMDL is 45 mg/L
4. TP Target from 2006 Cahaba River Nutrients TMDL is 0.035 mg/L during the growing season (April-Oct.)

City of Pelham MS4  
 Stormwater Management Program  
 2021-2022 TMDL Monitoring Results - WINTER

**Cahaba Valley Creek - Oak Mountain Amphitheater**

							Upstream
Date	TSS (mg/L)	Total PO <sub>4</sub> (mg/L)	pH*	Dissolved Oxygen* (mg/L)	Temperature* (°F)	E. Coli (col/100mL)	Geomean (E.Coli Only)
2/15/2022	2	<0.02	7.55	10.91	54.6	450	
2/17/2022	<1	0.03	7.54	9.79	59.0	150	
2/22/2022	14	0.03	7.05	9.72	57.2	300	
2/24/2022	9	0.03	6.97	9.35	60.9	50	140
3/1/2022	3	0.03	7.69	10.42	54.8	150	
3/3/2022	2	<0.02	7.57	9.74	63.6	50	
Average	5	0.03	7.40	9.99	58.4		

**Cahaba Valley Creek - Police Firing Range**

							Downstream
Date	TSS (mg/L)	Total PO <sub>4</sub> (mg/L)	pH*	Dissolved Oxygen* (mg/L)	Temperature* (°F)	E. Coli (col/100mL)	Geomean (E.Coli Only)
2/15/2022	<1	<0.02	7.68	11.20	54.4	50	
2/17/2022	<1	<0.02	7.78	10.13	59.7	150	
2/22/2022	19	0.05	7.10	9.97	56.4	1000	
2/24/2022	3	<0.02	7.16	9.49	61.0	250	190
3/1/2022	8	<0.02	7.36	10.69	54.6	250	
3/3/2022	4	<0.02	7.68	10.30	62.9	100	
Average	6	0.03	7.46	10.30	58.2		

Notes:

1. \*Indicates field measured parameters
2. Fish & Wildlife Classification dictates E.Coli criteria as follows: From May-Oct. Single Sample limit of 298 col/100 mL and Geomean of 126 col/100 mL; from Nov.-April Single Sample limit of 2,507 col/100 mL and Geomean of 548 col/100 mL
3. TSS Target from 2013 Cahaba River Siltation TMDL is 45 mg/L
4. TP Target from 2006 Cahaba River Nutrients TMDL is 0.035 mg/L during the growing season (April-Oct.)

City of Pelham MS4  
 Stormwater Management Program  
 2021-2022 TMDL Monitoring Results - SUMMER

**BUCS-4 - Holland Lakes Subdivision**

							Upstream
Date	TSS (mg/L)	Total PO <sub>4</sub> (mg/L)	pH* (s.u.)	Dissolved Oxygen* (mg/L)	Temperature* (°F)	E. Coli (col/100mL)	Geomean (E.Coli Only)
7/12/2022	4	0.08	7.53	7.29	77.1	100	
7/14/2022	6	0.04	7.93	7.37	75.4	250	
7/20/2022	6	0.10	7.52	7.20	76.8	300	231
7/21/2022	4	0.10	7.45	6.93	77.6	200	
7/26/2022	4	0.10	7.18	7.49	75.3	400	
7/28/2022	6	0.11	7.36	7.17	77.0	250	
Average	5	0.09	7.50	7.24	76.5		

**Buck Creek - Police Firing Range**

							Downstream
Date	TSS (mg/L)	Total PO <sub>4</sub> (mg/L)	pH* (s.u.)	Dissolved Oxygen* (mg/L)	Temperature* (°F)	E. Coli (col/100mL)	Geomean (E.Coli Only)
7/12/2022	9	0.09	7.74	7.61	77.5	550	
7/14/2022	58	0.03	9.32	7.62	77.3	2750	
7/20/2022	12	0.06	7.60	7.57	78.0	150	329
7/21/2022	9	0.08	7.69	7.50	78.8	150	
7/26/2022	9	0.11	7.55	7.78	76.8	250	
7/28/2022	11	0.08	7.76	7.58	78.2	150	
Average	18	0.08	7.94	7.61	77.8		

- Notes:
- \*Indicates field measured parameters
  - Fish & Wildlife Classification dictates E.Coli criteria as follows: From May-Oct. Single Sample limit of 298 col/100 mL and Geomean of 126 col/100 mL; from Nov.-April Single Sample limit of 2,507 col/100 mL and Geomean of 548 col/100 mL
  - TSS Target from 2013 Cahaba River Siltation TMDL is 45 mg/L
  - TP Target from 2006 Cahaba River Nutrients TMDL is 0.035 mg/L during the growing season (April-Oct.)

City of Pelham MS4  
 Stormwater Management Program  
 2021-2022 TMDL Monitoring Results - SUMMER

**Cahaba Valley Creek - Oak Mountain Amphitheater**

							Upstream
Date	TSS (mg/L)	Total PO <sub>4</sub> (mg/L)	pH*	Dissolved Oxygen* (mg/L)	Temperature* (°F)	E. Coli (col/100mL)	Geomean (E.Coli Only)
7/12/2022	2	0.07	7.60	7.16	76.8	250	
7/14/2022	2	<0.02	9.43	7.33	76.2	<50	
7/20/2022	4	0.06	7.59	7.00	78.8	50	216
7/21/2022	2	0.06	7.73	6.94	79.5	50	
7/26/2022	2	0.06	7.66	7.32	77.3	650	
7/28/2022	4	0.08	7.72	7.08	79.4	1150	
Average	3	0.06	7.96	7.14	78.0		

**Cahaba Valley Creek - Police Firing Range**

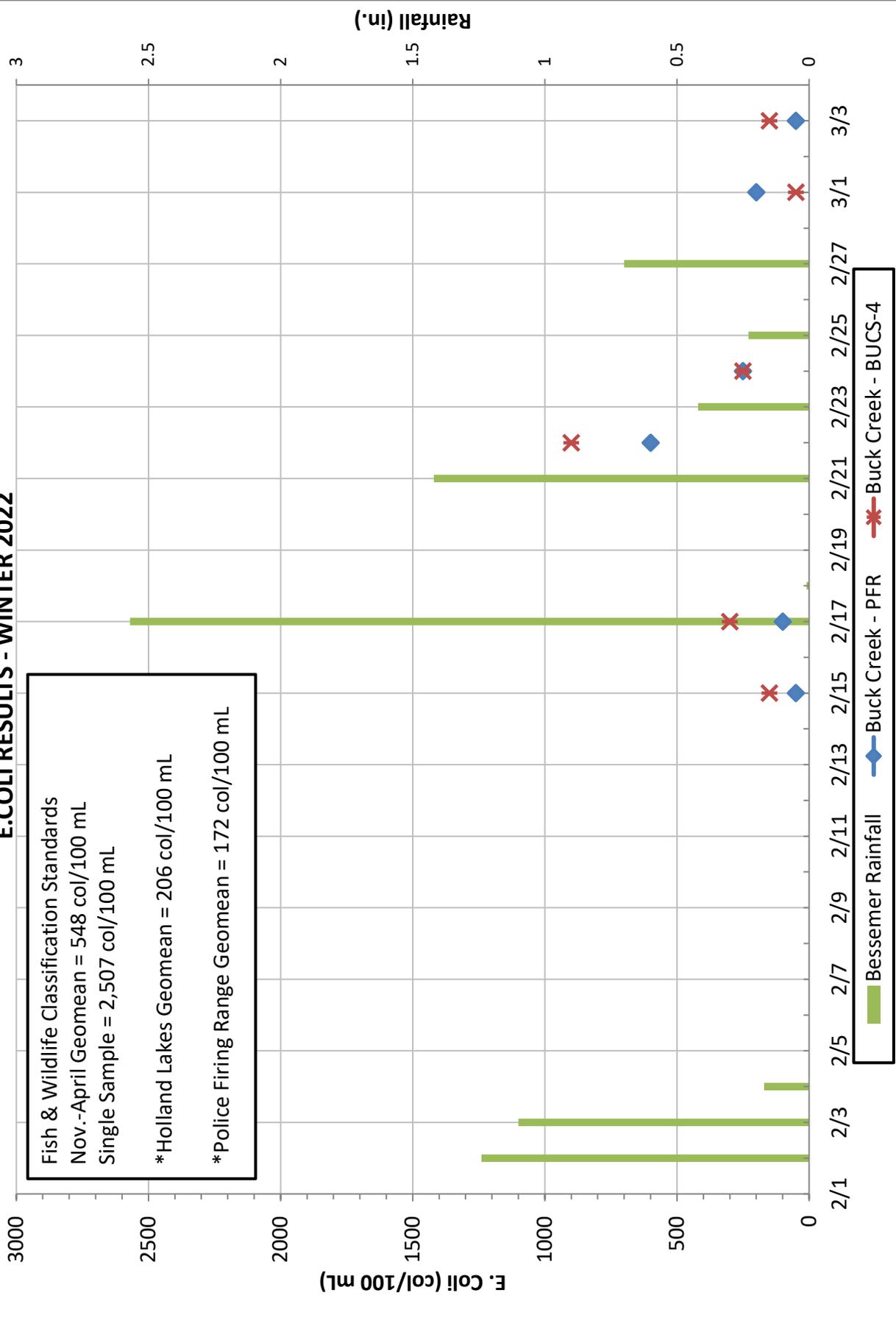
							Downstream
Date	TSS (mg/L)	Total PO <sub>4</sub> (mg/L)	pH*	Dissolved Oxygen* (mg/L)	Temperature* (°F)	E. Coli (col/100mL)	Geomean (E.Coli Only)
7/12/2022	4	0.08	7.71	7.63	76.5	100	
7/14/2022	4	<0.02	9.55	7.86	76.1	300	
7/20/2022	5	0.06	7.58	7.50	77.6	200	191
7/21/2022	4	0.03	7.78	7.50	77.9	400	
7/26/2022	5	0.06	7.70	7.85	76.0	200	
7/28/2022	4	0.06	7.70	7.65	77.1	100	
Average	4	0.05	8.00	7.67	76.9		

- Notes:
- \*Indicates field measured parameters
  - Fish & Wildlife Classification dictates E.Coli criteria as follows: From May-Oct. Single Sample limit of 298 col/100 mL and Geomean of 126 col/100 mL; from Nov.-April Single Sample limit of 2,507 col/100 mL and Geomean of 548 col/100 mL
  - TSS Target from 2013 Cahaba River Siltation TMDL is 45 mg/L
  - TP Target from 2006 Cahaba River Nutrients TMDL is 0.035 mg/L during the growing season (April-Oct.)

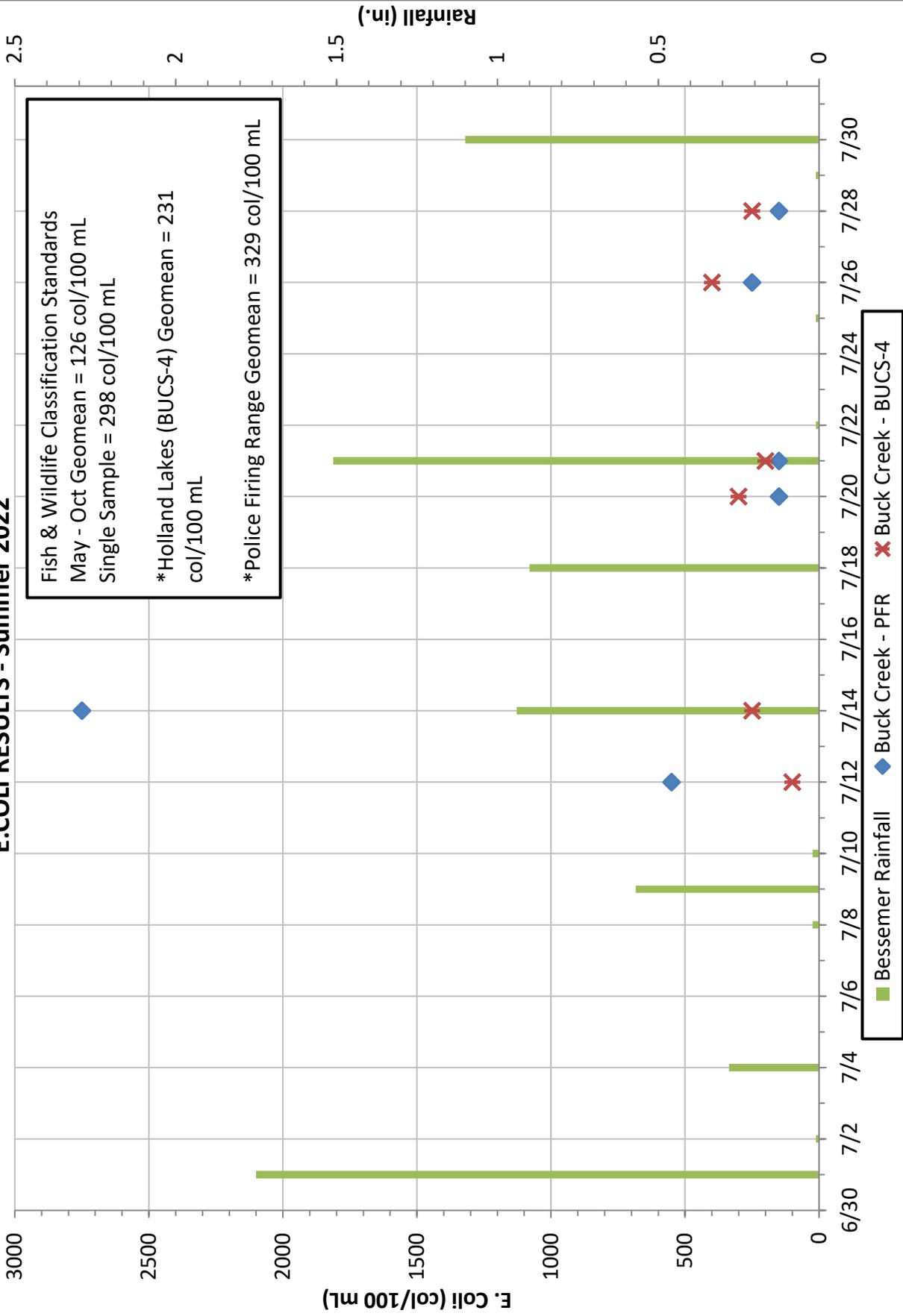
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**BUCK CREEK TMDL SAMPLING  
E. COLI RESULTS - WINTER 2022**

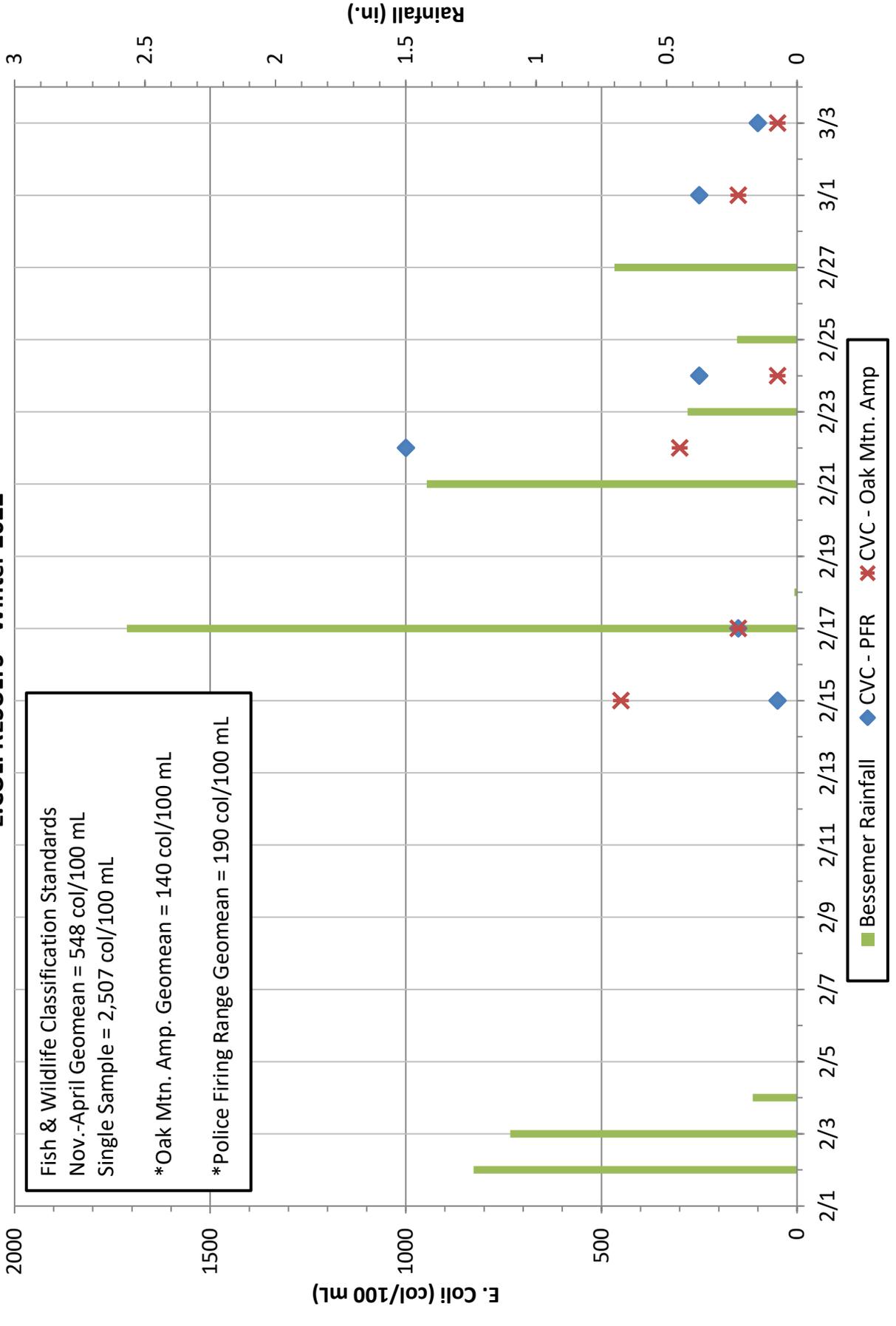
Fish & Wildlife Classification Standards  
 Nov.-April Geomean = 548 col/100 mL  
 Single Sample = 2,507 col/100 mL  
 \*Holland Lakes Geomean = 206 col/100 mL  
 \*Police Firing Range Geomean = 172 col/100 mL



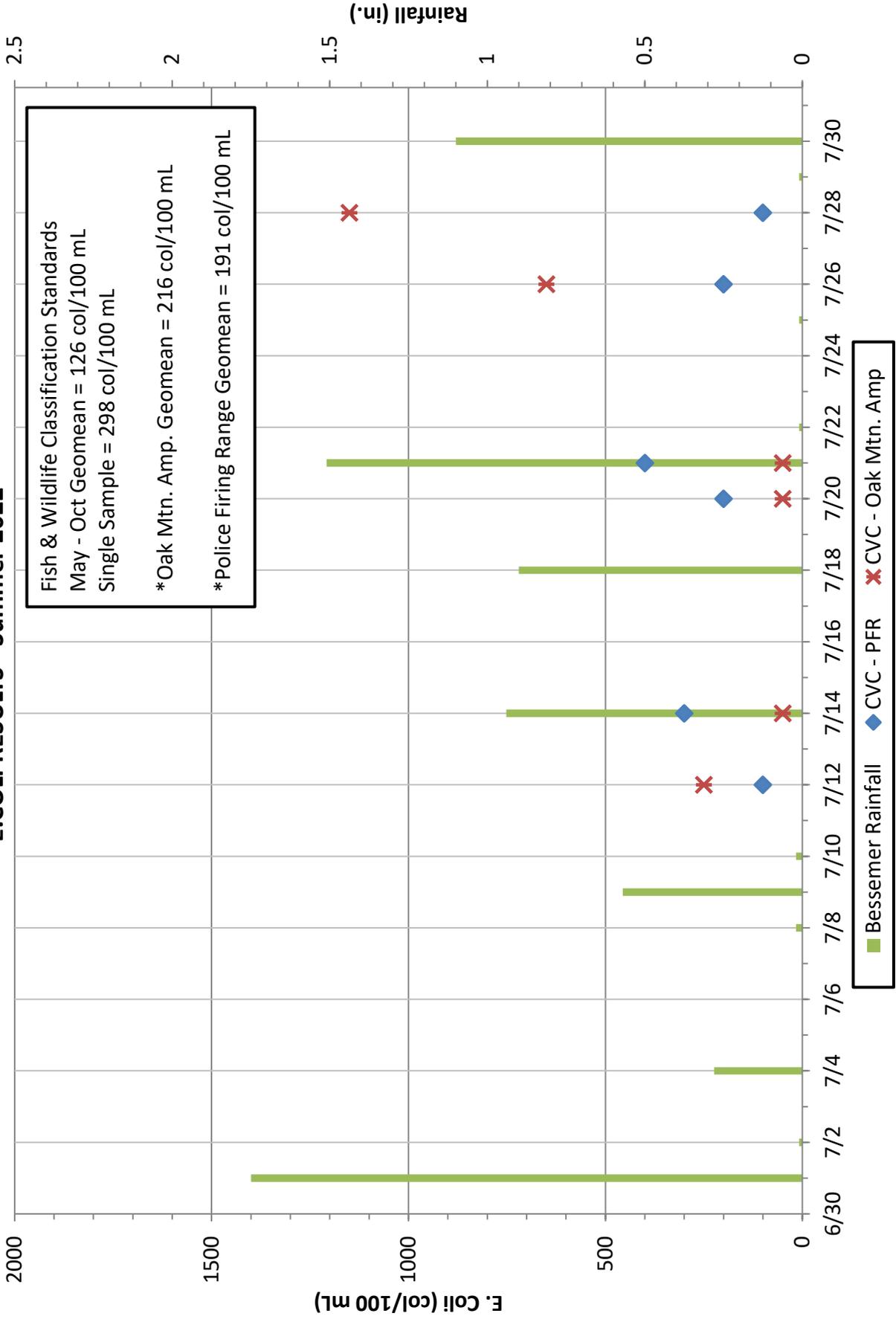
# BUCK CREEK TMDL SAMPLING E. COLI RESULTS - Summer 2022



### CAHABA V. CREEK TMDL SAMPLING E. COLI RESULTS - Winter 2022

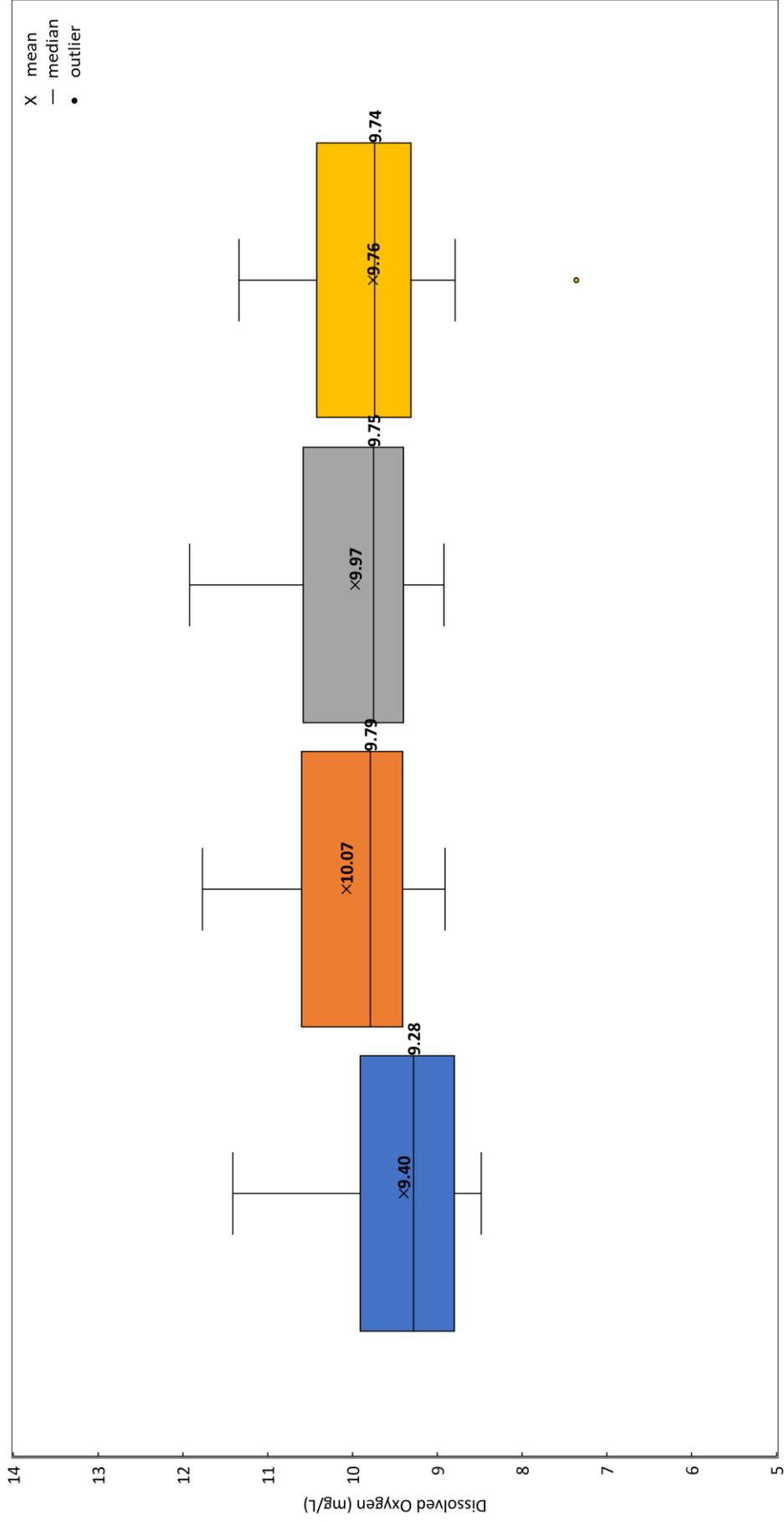


# CAHABA V. CREEK TMDL SAMPLING E. COLI RESULTS - Summer 2022



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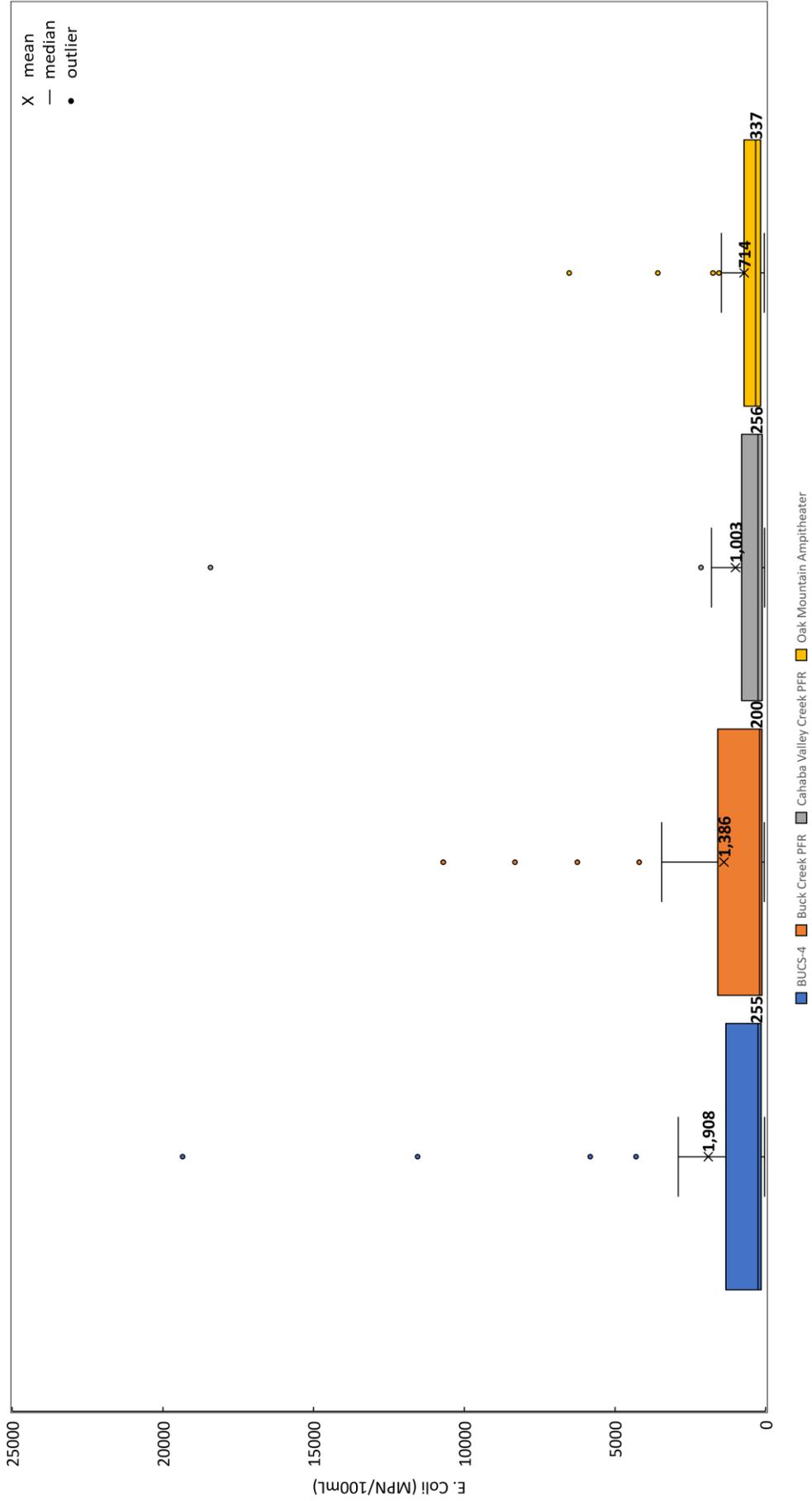
City of Pelham MS4  
 Stormwater Management Program  
 Cumulative TMDL Results - Winter  
 2017-2022



Box Boundary = 1st and 3rd quartile (Q1, Q3)  
 Box Partition Line = Median (Q2)  
 Interquartile Range (IQR) = Q3-Q1

Upper Whisker =  $Q3 + 1.5 * IQR$   
 Lower Whisker =  $Q1 - 1.5 * IQR$   
 Outlier = data values  $>$  upper or  $<$  lower whisker line

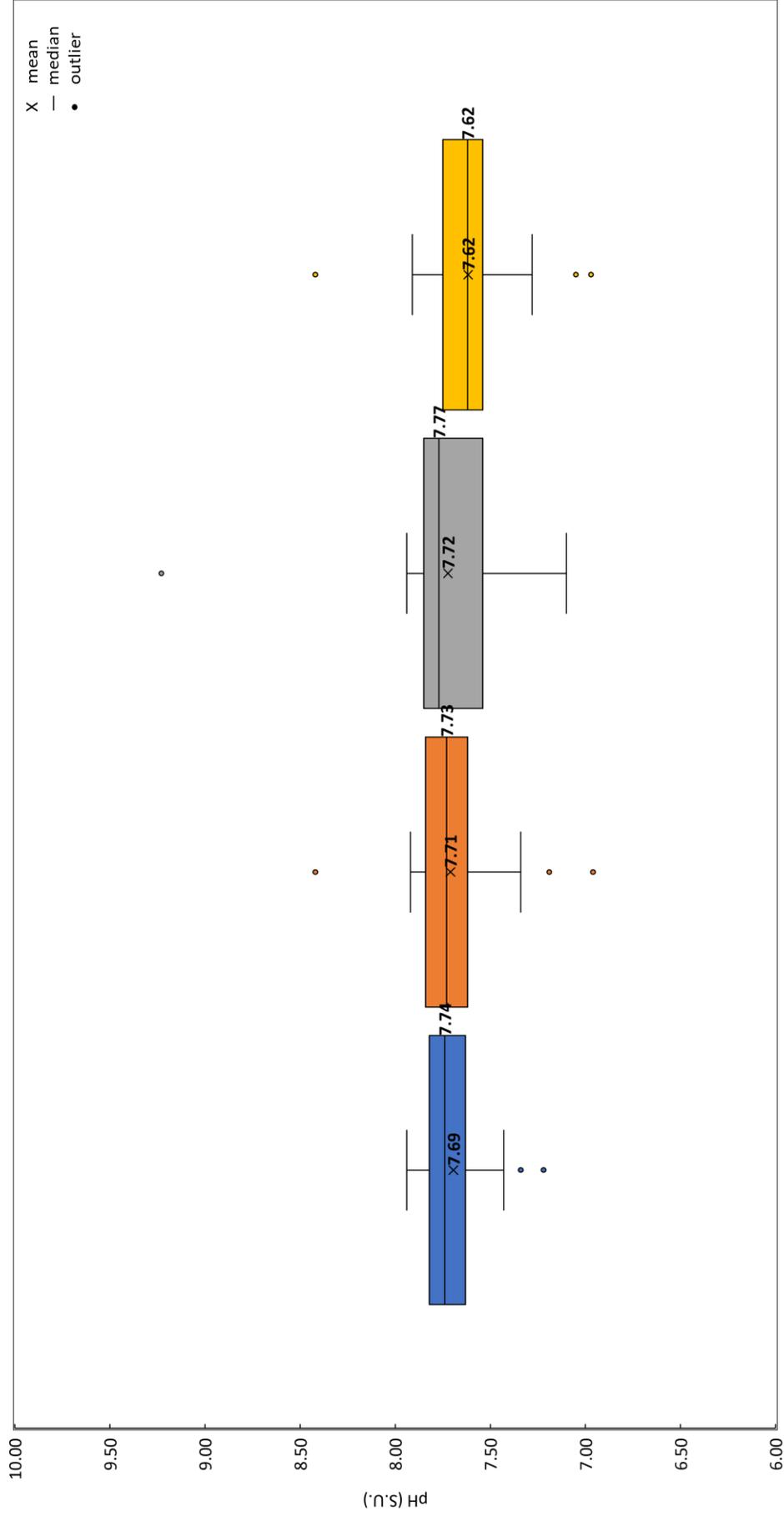
City of Pelham MS4  
 Stormwater Management Program  
 Cumulative TMDL Results - Winter  
 2017-2022



Box Boundary = 1st and 3rd quartile (Q1, Q3)  
 Box Partition Line = Median (Q2)  
 Interquartile Range (IQR) = Q3-Q1

Upper Whisker = Q3+1.5\*IQR  
 Lower Whisker = Q1-1.5\*IQR  
 Outlier = data values > upper or < lower whisker line

City of Pelham MS4  
 Stormwater Management Program  
 Cumulative TMDL Results - Winter  
 2017-2022



Box Boundary = 1st and 3rd quartile (Q1, Q3)

Box Partition Line = Median (Q2)

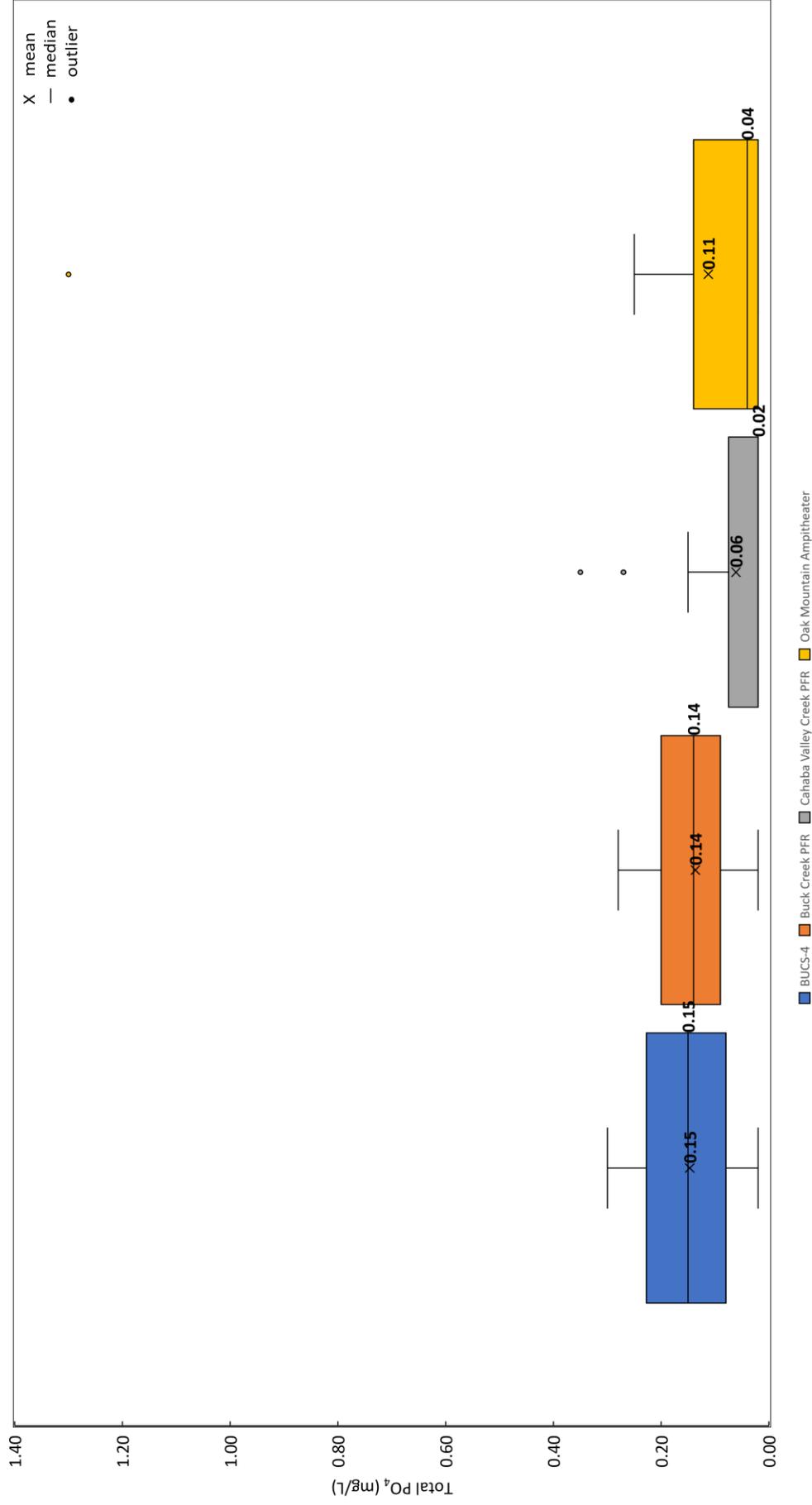
Interquartile Range (IQR) = Q3-Q1

Upper Whisker = Q3+1.5\*IQR

Lower Whisker = Q1-1.5\*IQR

Outlier = data values > upper or < lower whisker line

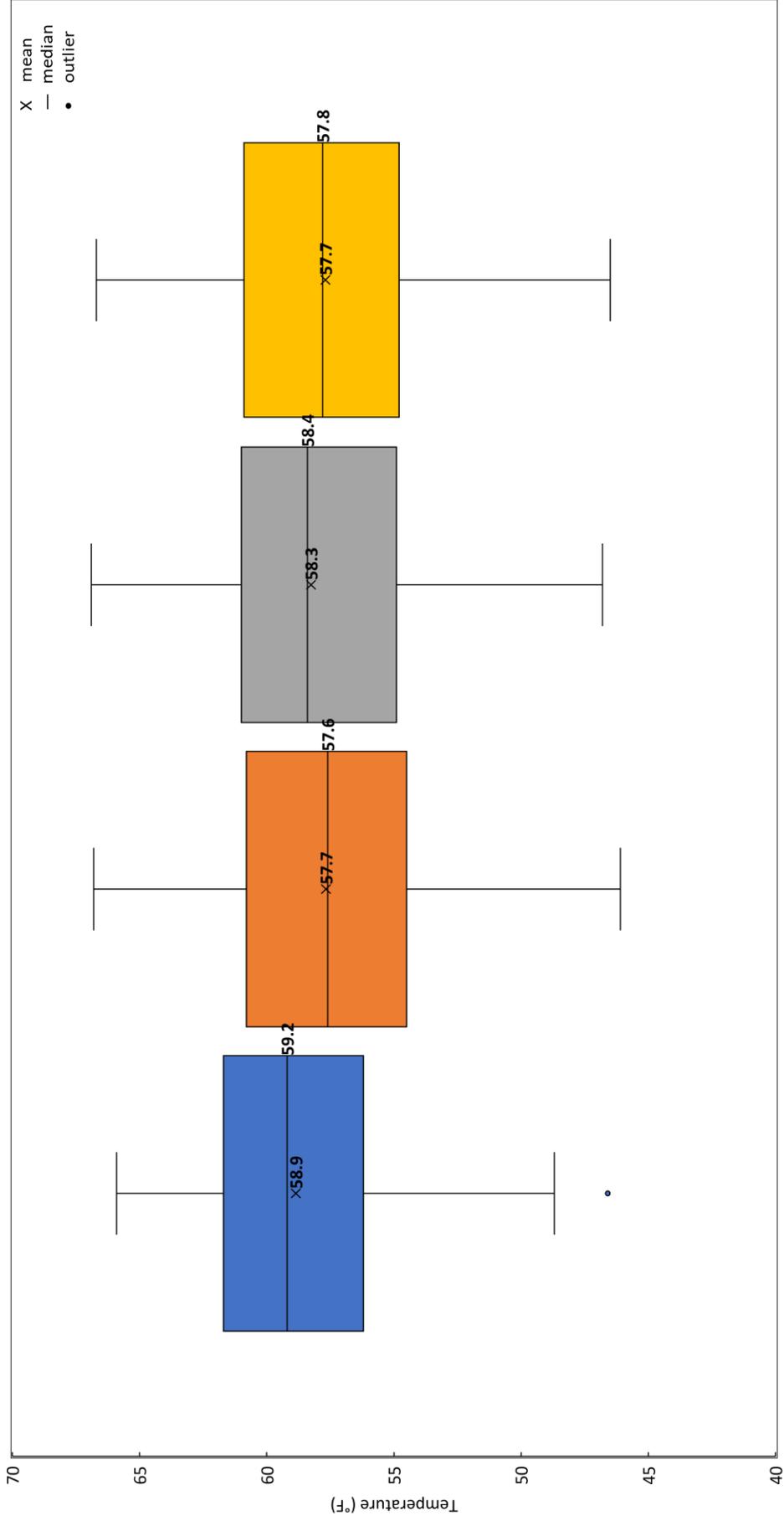
City of Pelham MS4  
 Stormwater Management Program  
 Cumulative TMDL Results - Winter  
 2017-2022



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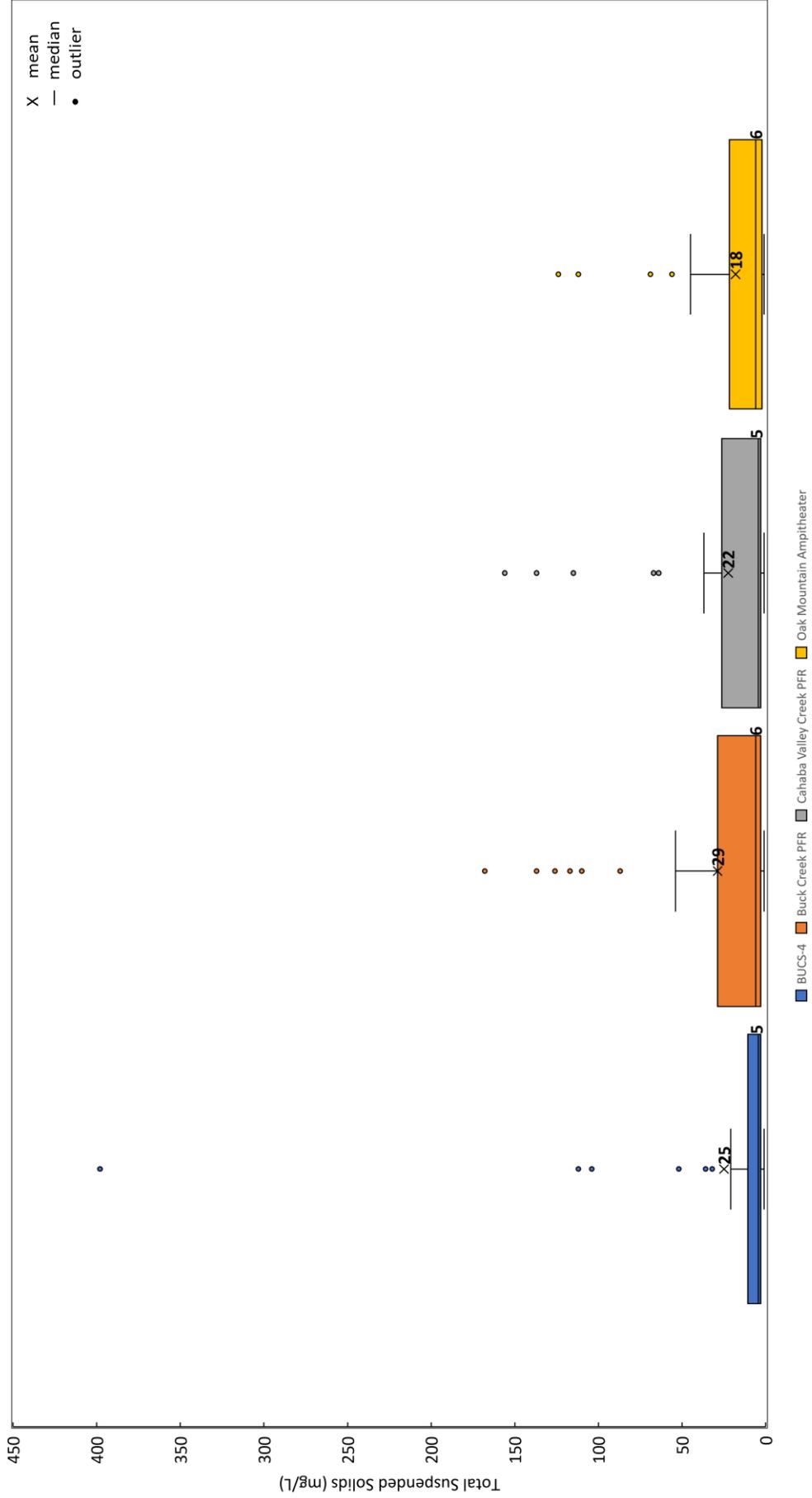
City of Pelham MS4  
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 2017-2022



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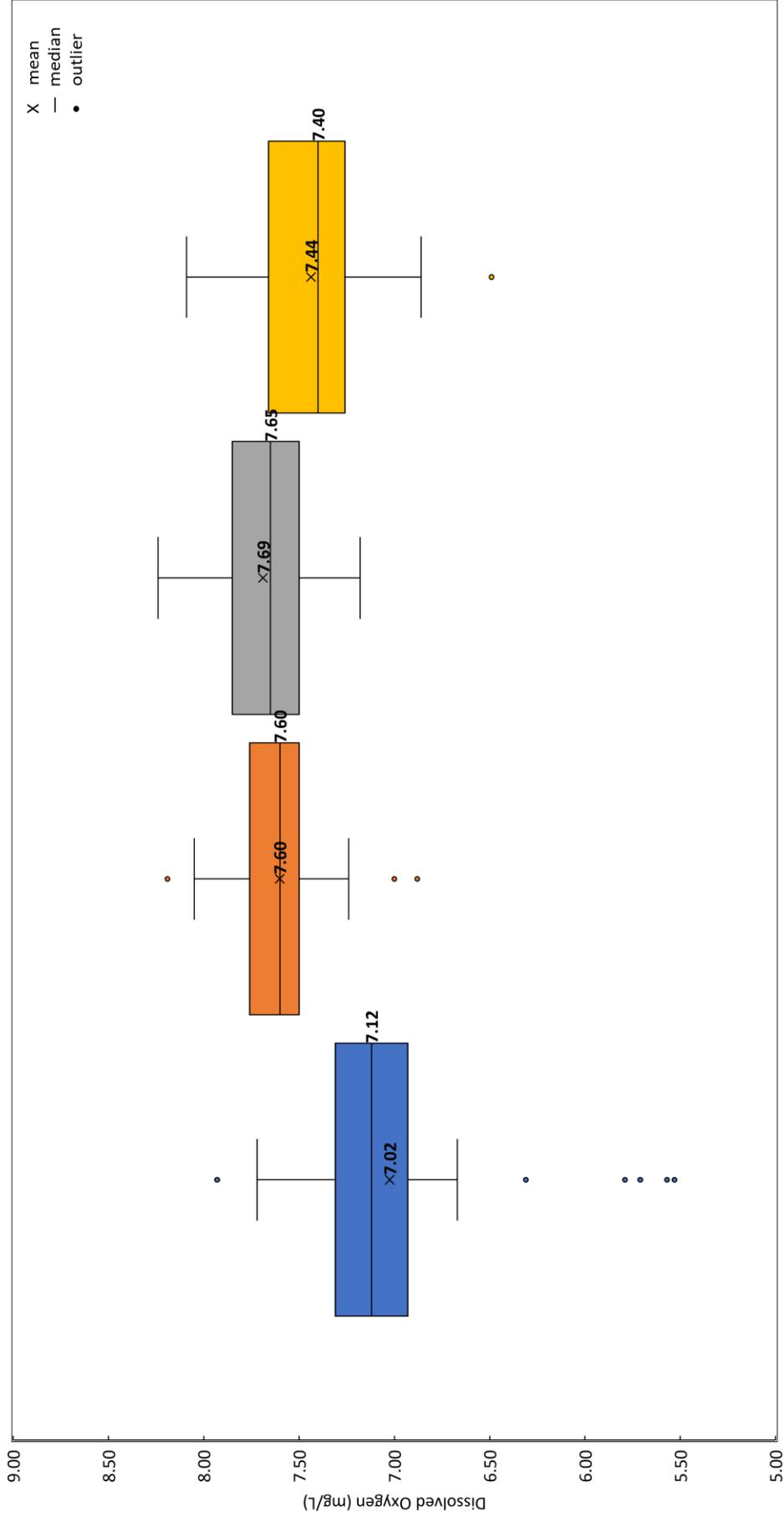
City of Pelham MS4  
 Stormwater Management Program  
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 2017-2022



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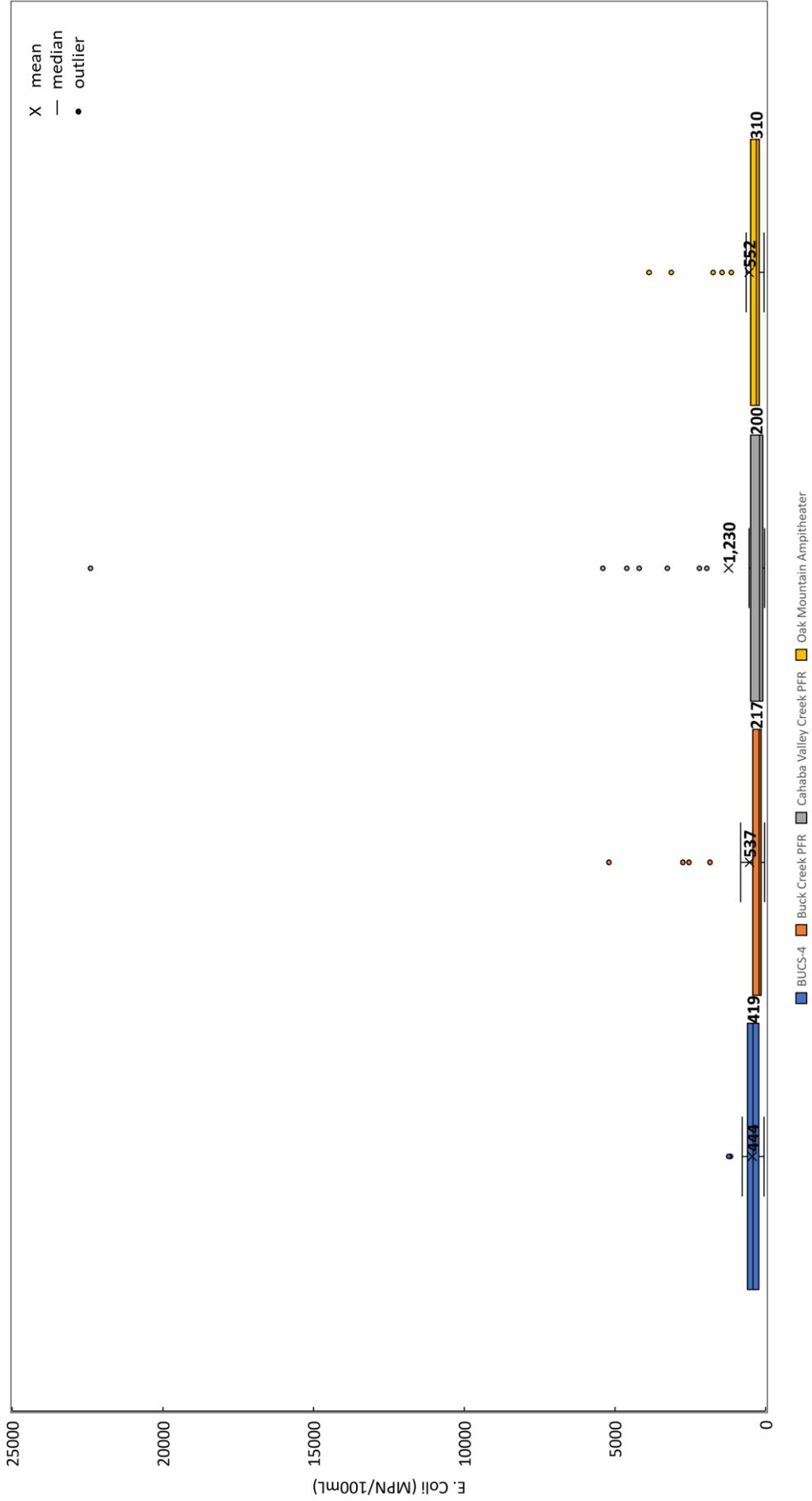
City of Pelham MS4  
 Stormwater Management Program  
 Cumulative TMDL Results - Summer  
 2016-2022



Box Boundary = 1st and 3rd quartile (Q1, Q3)  
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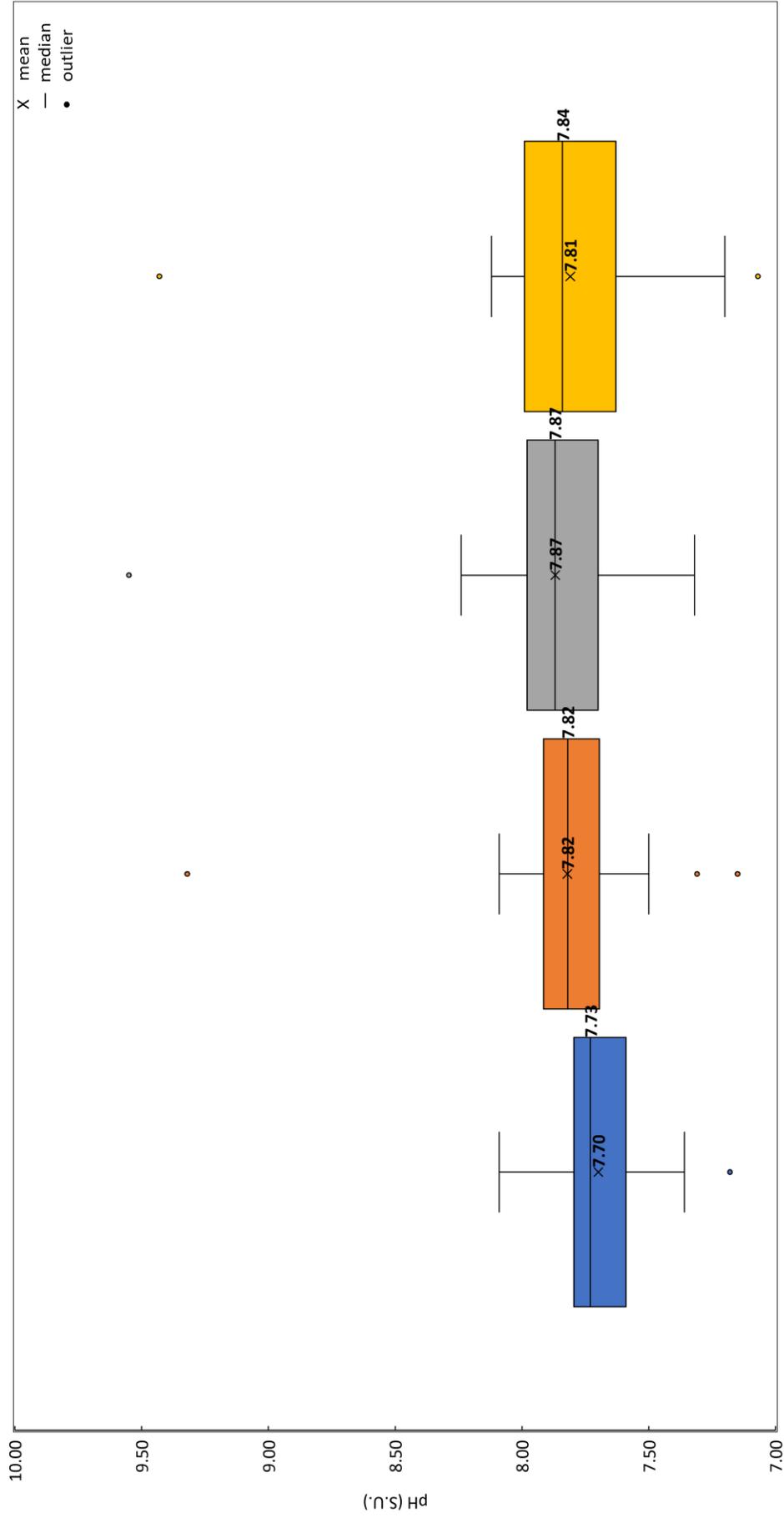
City of Pelham MS4  
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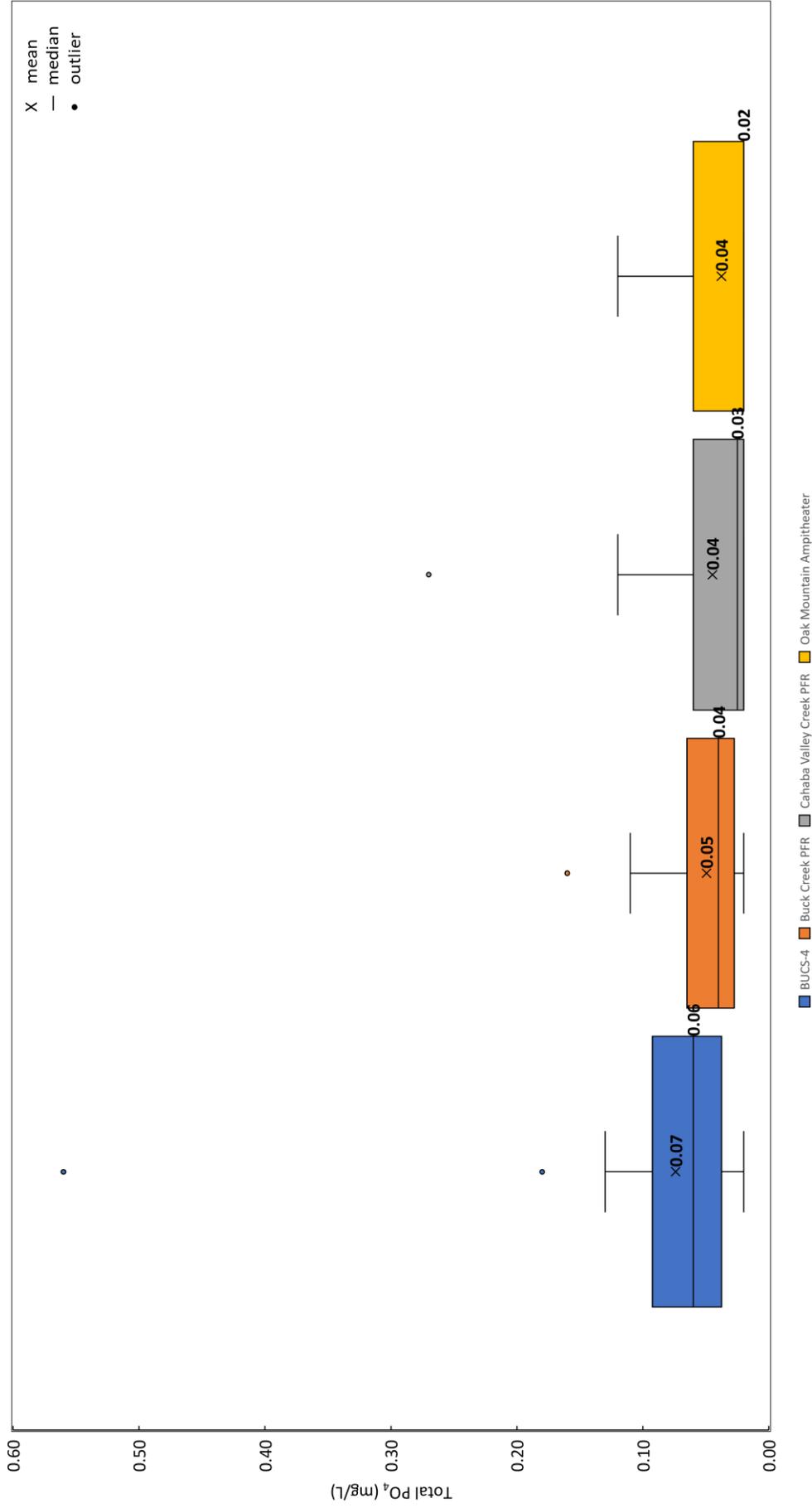
City of Pelham MS4  
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 Cumulative TMDL Results - Summer  
 2016-2022



Box Boundary = 1st and 3rd quartile (Q1, Q3)  
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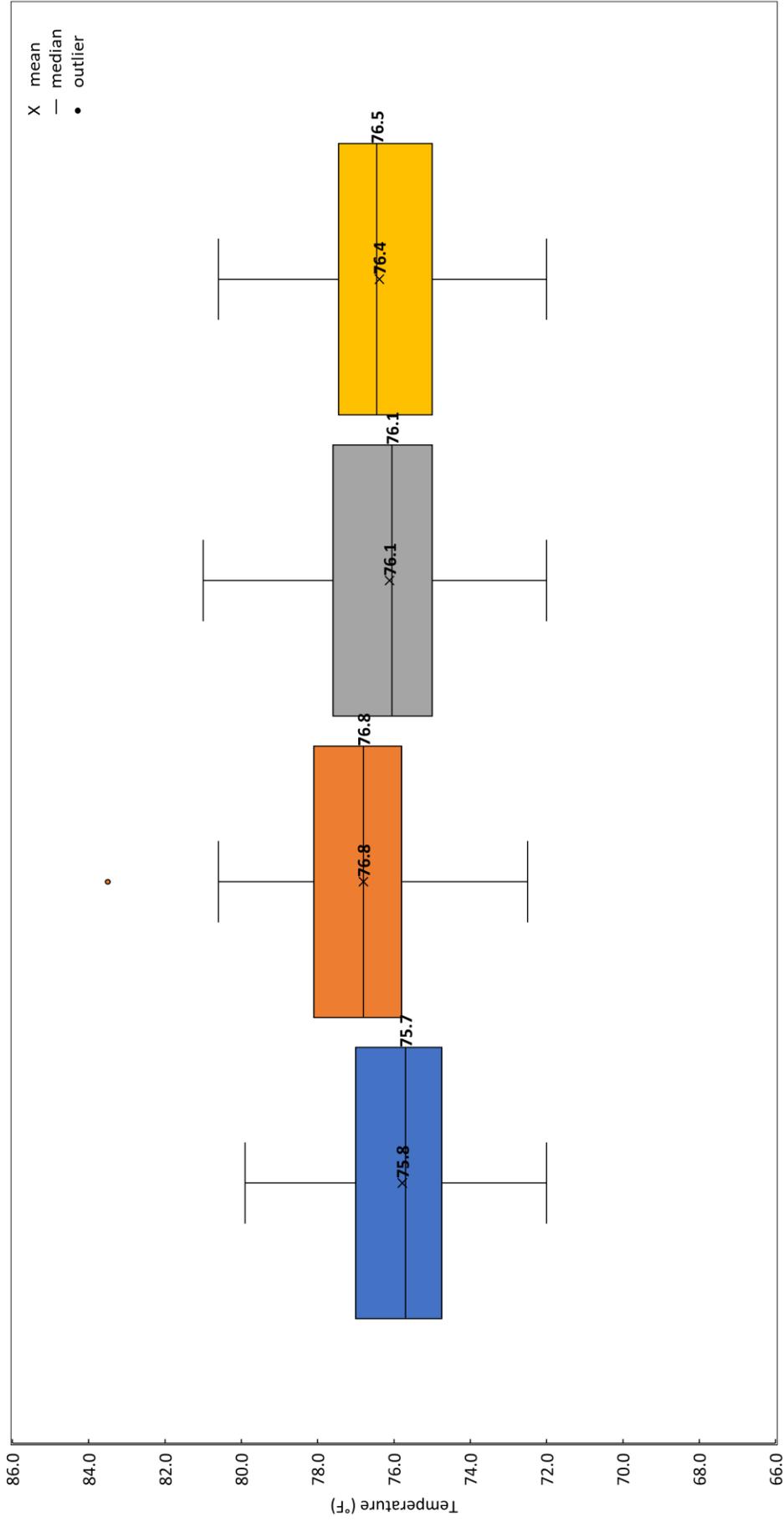
City of Pelham MS4  
 Stormwater Management Program  
 Cumulative TMDL Results - Summer  
 2016-2022



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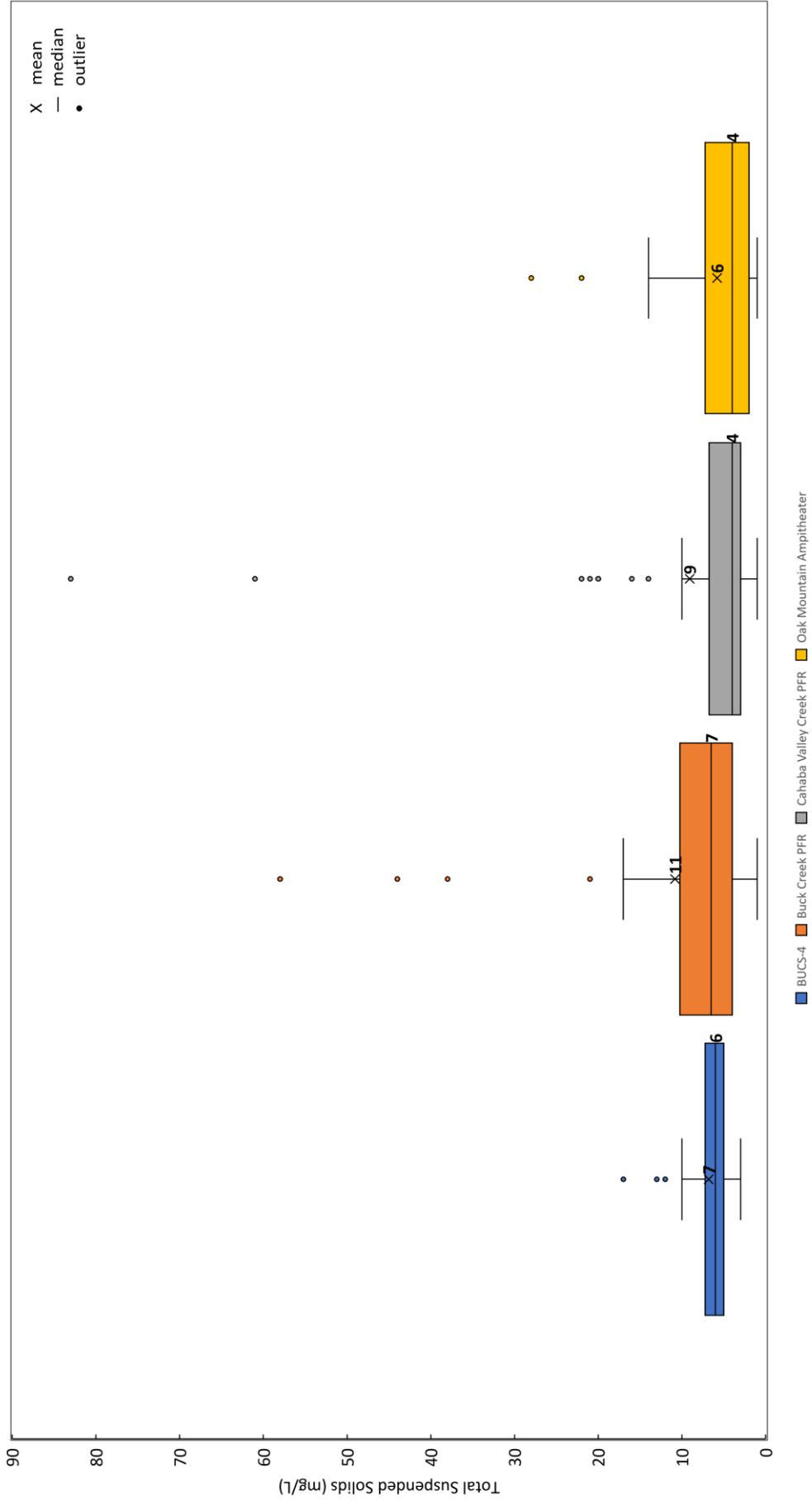
City of Pelham MS4  
 Stormwater Management Program  
 Cumulative TMDL Results - Summer  
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City of Pelham MS4  
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 Birmingham, AL 35210  
 Phone: (205) 951-3400  
 www.emcbham.com

Municipal Consultants - Pelham  
 200 Century Park South  
 Suite 212  
 Birmingham, AL 35226

Lab Number: 20220488  
 Date Reported: 2/21/2022  
 Date Received: 2/15/2022

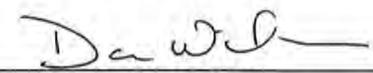
### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20220488-01</b>		<b>Description: Buck Creek BUCS-4 - Semi-Annual TMDL</b>				
<b>Sampled: 2/15/2022 9:51:00 AM</b>						
pH	SM 4500 H + B	7.47	SU		02/15/22 9:51	cli
Dissolved Oxygen	SM 4500 O G	10.7	mg/L		02/15/22 9:51	cli
Temperature		53.9	°F		02/15/22 9:51	cli
E. Coli	IDEXX Colilert 18	150	MPN/100ml	02/15/22 18:05	02/16/22 15:35	SB
Total Suspended Solids	SM 2540 D	3.00	mg/L		02/16/22 13:55	JER
Phosphorus, Total	HACH 8190	0.17	mg/L		02/17/22 12:50	SB

<b>Sample No: 20220488-02</b>		<b>Description: Buck Creek Police Firing Range - Semi-Annual TMDL</b>				
<b>Sampled: 2/15/2022 10:27:00 AM</b>						
Water Level		4.85	feet		02/15/22 10:27	cli
pH	SM 4500 H + B	7.54	SU		02/15/22 10:27	cli
Dissolved Oxygen	SM 4500 O G	11.6	mg/L		02/15/22 10:27	cli
Temperature		53.1	°F		02/15/22 10:27	cli
E. Coli	IDEXX Colilert 18	50	MPN/100ml	02/15/22 18:05	02/16/22 15:35	SB
Total Suspended Solids	SM 2540 D	3.00	mg/L		02/16/22 13:55	JER
Phosphorus, Total	HACH 8190	0.11	mg/L		02/17/22 12:50	SB

HACH EPA Compliant Methods  
 IDEXX Quanti-Tray 2000 MPN Colilert 18  
 Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998.

cli Client JER Joanna Rowlen SB Seyvon Brown

Approved By   
 Daneen Wilson  
 Lab Manager





2607 Commerce Blvd.  
 Birmingham, AL 35210  
 Phone: (205) 951-3400  
 www.emcbham.com

Municipal Consultants - Pelham  
 200 Century Park South  
 Suite 212  
 Birmingham, AL 35226

Lab Number: 20220489  
 Date Reported: 2/21/2022  
 Date Received: 2/15/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20220489-01</b>		<b>Description: CVC Oak Mtn. Ampitheater - Semi-Annual TMDL</b>				
<b>Sampled: 2/15/2022 11:17:00 AM</b>						
pH	SM 4500 H + B	7.55	SU		02/15/22 11:17	cli
Dissolved Oxygen	SM 4500 O G	10.91	mg/L		02/15/22 11:17	cli
Temperature		54.6	°F		02/15/22 11:17	cli
E. Coli	IDEXX Colilert 18	450	MPN/100ml	02/15/22 18:05	02/16/22 15:35	SB
Total Suspended Solids	SM 2540 D	2.00	mg/L		02/16/22 13:55	JER
Phosphorus, Total	HACH 8190	*B (<0.02)	mg/L		02/17/22 12:50	SB

<b>Sample No: 20220489-02</b>		<b>Description: CVC Police Firing Range - Semi-Annual TMDL</b>				
<b>Sampled: 2/15/2022 10:43:00 AM</b>						
pH	SM 4500 H + B	7.68	SU		02/15/22 10:43	cli
Dissolved Oxygen	SM 4500 O G	11.2	mg/L		02/15/22 10:43	cli
Temperature		54.4	°F		02/15/22 10:43	cli
E. Coli	IDEXX Colilert 18	50	MPN/100ml	02/15/22 18:05	02/16/22 15:35	SB
Total Suspended Solids	SM 2540 D	*B (<1.00)	mg/L		02/16/22 13:55	JER
Phosphorus, Total	HACH 8190	*B (<0.02)	mg/L		02/17/22 12:50	SB

ADEM/EPA NODI code \*B: result is below detection limit

HACH EPA Compliant Methods

IDEXX Quanti-Tray 2000 MPN Colilert 18

Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998.

cli Client

JER Joanna Rowlen

SB Seyvon Brown

Approved By

Daneen Wilson  
 Lab Manager





2607 Commerce Blvd.  
 Birmingham, AL 35210  
 Phone: (205) 951-3400  
 www.emcbham.com

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 200 Century Park South  
 Suite 212  
 Birmingham, AL 35226

Lab Number: 20220523  
 Date Reported: 2/21/2022  
 Date Received: 2/17/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20220523-01</b>		<b>Description: Buck Creek BUCS-4 - Semi-Annual TMDL</b>				
<b>Sampled: 2/17/2022 8:52:00 AM</b>						
pH	SM 4500 H + B	7.52	SU		02/17/22 8:52	cli
Dissolved Oxygen	SM 4500 O G	9.42	mg/L		02/17/22 8:52	cli
Temperature		59.3	°F		02/17/22 8:52	cli
E. Coli	IDEXX Colilert 18	300	MPN/100ml	02/17/22 16:30	02/18/22 13:16	SB
Total Suspended Solids	SM 2540 D	3.00	mg/L		02/18/22 11:30	JER
Phosphorus, Total	HACH 8190	0.18	mg/L		02/18/22 8:26	SB

<b>Sample No: 20220523-02</b>		<b>Description: Buck Creek Police Firing Range - Semi-Annual TMDL</b>				
<b>Sampled: 2/17/2022 9:27:00 AM</b>						
Water Level		4.75	feet		02/17/22 9:27	cli
pH	SM 4500 H + B	7.63	SU		02/17/22 9:27	cli
Dissolved Oxygen	SM 4500 O G	9.97	mg/L		02/17/22 9:27	cli
Temperature		59.7	°F		02/17/22 9:27	cli
E. Coli	IDEXX Colilert 18	100	MPN/100ml	02/17/22 16:30	02/18/22 13:16	SB
Total Suspended Solids	SM 2540 D	*B (<1.00)	mg/L		02/18/22 11:30	JER
Phosphorus, Total	HACH 8190	0.14	mg/L		02/18/22 8:26	SB

ADEM/EPA NODI code \*B: result is below detection limit

HACH EPA Compliant Methods

IDEXX Quanti-Tray 2000 MPN Colilert 18

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cli Client

JER Joanna Rowlen

SB Seyvon Brown

Approved By

Dancien Wilson

Lab Manager





2607 Commerce Blvd.  
 Birmingham, AL 35210  
 Phone: (205) 951-3400  
 www.emcbham.com

Municipal Consultants - Pelham  
 200 Century Park South  
 Suite 212  
 Birmingham, AL 35226

Lab Number: 20220524  
 Date Reported: 2/21/2022  
 Date Received: 2/17/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20220524-01</b>		<b>Description: CVC Oak Mtn. Ampitheater - Semi-Annual TMDL</b>				
<b>Sampled: 2/17/2022 10:04:00 AM</b>						
pH	SM 4500 H + B	7.54	SU		02/17/22 10:04	cli
Dissolved Oxygen	SM 4500 O G	9.79	mg/L		02/17/22 10:04	cli
Temperature		59.0	°F		02/17/22 10:04	cli
E. Coli	IDEXX Colilert 18	150	MPN/100ml	02/17/22 16:30	02/18/22 13:16	SB
Total Suspended Solids	SM 2540 D	*B (<1.00)	mg/L		02/18/22 11:30	JER
Phosphorus, Total	HACH 8190	0.03	mg/L		02/18/22 8:26	SB

<b>Sample No: 20220524-02</b>		<b>Description: CVC Police Firing Range - Semi-Annual TMDL</b>				
<b>Sampled: 2/17/2022 9:38:00 AM</b>						
pH	SM 4500 H + B	7.78	SU		02/17/22 9:38	cli
Dissolved Oxygen	SM 4500 O G	10.13	mg/L		02/17/22 9:38	cli
Temperature		59.7	°F		02/17/22 9:38	cli
E. Coli	IDEXX Colilert 18	150	MPN/100ml	02/17/22 16:30	02/18/22 13:16	SB
Total Suspended Solids	SM 2540 D	*B (<1.00)	mg/L		02/18/22 11:30	JER
Phosphorus, Total	HACH 8190	*B (<0.02)	mg/L		02/18/22 8:26	SB

ADEM/EPA NODI code \*B: result is below detection limit

HACH EPA Compliant Methods

IDEXX Quanti-Tray 2000 MPN Colilert 18

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cli Client

JER Joanna Rowlen

SB Seyvon Brown

Approved By

Daneen Wilson  
 Lab Manager



2607 Commerce Boulevard  
 Birmingham, AL 35210  
 (205) 951-3400  
 (800) 239-2837  
 (205) 951-0808 FAX  
 www.emcbham.com

0524

**Chain of Custody Record**

ENVIRO MANAGEMENT CORP.

CLIENT <b>City of Pelham/MCI</b>		P.O. #		PHONE # ( 205 ) 822-0387		FAX # ( 205 ) 822-0386		TURN AROUND TIME	
ADDRESS (STREET, CITY, ZIP) <b>200 Century Park S STE 212 Birmingham AL</b>		PROJECT NAME <b>TMDL Sampling - City of Pelham</b>							
ATTENTION <b>Andrew Golden</b>		# OF CONTAINERS		PRESERVATIVE		E. Coli		REMARKS	
SAMPLERS: (Signature) <i>Wells Garner</i>		MATRIX		Total Suspended Solids		Total Phos (Hach Method)		S A M P L E S	
START DATE	STOP DATE	TIME COLLECTED	G-COMP	G-GRAB	SPECIFIC LOCATION				
2-17-22 9:59 am	2-17-22 10:04 am	10:04 am	G	G	Cahaba Valley Creek	X		pH: 7.54 DO: 9.79 mg/L Temp: 59.0°F	(✓)
			G	G	Oak Mtn. Ampitheater		X		(✓)
			G	G					(✓)
2-17-22 9:33 am	2-17-22 9:38 am	9:38 am	G	G	Cahaba Valley Creek	X		pH: 7.78 DO: 10.13 mg/L Temp: 59.7°F	(✓)
			G	G	Police Firing Range		X		(✓)
			G	G					(✓)
Relinquished by: (Signature) <i>Wells Garner</i>		Date/Time 2-17-22 11:30 am	Received by: (Signature)		Date/Time	Relinquished by: (Signature)		Date/Time	Received by: (Signature)
Relinquished by: (Signature)		Date/Time	Received for Laboratory by: (Signature) <i>Halley Jones</i>		Date/Time 2/17/22 11:30 am	Remarks		Date/Time	

\* A=H<sub>2</sub>SO<sub>4</sub> B=HCL C=HNO<sub>3</sub> D=NaOH E=Na<sub>2</sub>SO<sub>3</sub>  
 EColi Dilutions 50,10,1,0,0.1ml  
 Include Count, Avg. Data with Results  
 Total P - use method with lowest detection limit







2607 Commerce Blvd.  
 Birmingham, AL 35210  
 Phone: (205) 951-3400  
 www.emcbham.com

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 200 Century Park South  
 Suite 212  
 Birmingham, AL 35226

Lab Number: 20220560  
 Date Reported: 2/24/2022  
 Date Received: 2/22/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20220560-01</b>		<b>Description: CVC Oak Mtn. Ampitheater - Semi-Annual TMDL</b>				
<b>Sampled: 2/22/2022 10:18:00 AM</b>						
pH	SM 4500 H + B	7.05	SU		02/22/22 10:18	cli
Dissolved Oxygen	SM 4500 O G	9.72	mg/L		02/22/22 10:18	cli
Temperature		57.2	°F		02/22/22 10:18	cli
E. Coli	IDEXX Colilert 18	300	MPN/100ml	02/22/22 16:26	02/23/22 14:12	SB
Total Suspended Solids	SM 2540 D	14.0	mg/L		02/23/22 13:00	JER
Phosphorus, Total	HACH 8190	0.03	mg/L		02/23/22 9:38	SB

<b>Sample No: 20220560-02</b>		<b>Description: CVC Police Firing Range - Semi-Annual TMDL</b>				
<b>Sampled: 2/22/2022 9:55:00 AM</b>						
pH	SM 4500 H + B	7.10	SU		02/22/22 9:55	cli
Dissolved Oxygen	SM 4500 O G	9.97	mg/L		02/22/22 9:55	cli
Temperature		56.4	°F		02/22/22 9:55	cli
E. Coli	IDEXX Colilert 18	1000	MPN/100ml	02/22/22 16:26	02/23/22 14:12	SB
Total Suspended Solids	SM 2540 D	19.0	mg/L		02/23/22 13:00	JER
Phosphorus, Total	HACH 8190	0.05	mg/L		02/23/22 9:38	SB

HACH EPA Compliant Methods

IDEXX Quanti-Tray 2000 MPN Colilert 18

Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998.

cli Client

JER Joanna Rowlen

SB Seyvon Brown

Approved By

Daneen Wilson  
 Lab Manager





2607 Commerce Blvd.  
 Birmingham, AL 35210  
 Phone: (205) 951-3400  
 www.emcbham.com

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 200 Century Park South  
 Suite 212  
 Birmingham, AL 35226

Lab Number: 20220596  
 Date Reported: 2/28/2022  
 Date Received: 2/24/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20220596-01</b>		<b>Description: Buck Creek BUCS-4 - Semi-Annual TMDL</b>				
<b>Sampled: 2/24/2022 10:00:00 AM</b>						
Water Level		5.90	feet		02/24/22 10:00	cli
pH	SM 4500 H + B	7.34	SU		02/24/22 10:00	cli
Dissolved Oxygen	SM 4500 O G	9.34	mg/L		02/24/22 10:00	cli
Temperature		61.7	°F		02/24/22 10:00	cli
E. Coli	IDEXX Colilert 18	250	MPN/100ml	02/24/22 17:45	02/25/22 15:20	JER
Total Suspended Solids	SM 2540 D	5.00	mg/L		02/25/22 13:59	DW
Phosphorus, Total	HACH 8190	0.26	mg/L		02/25/22 17:20	SB
<b>Sample No: 20220596-02</b>		<b>Description: Buck Creek Police Firing Range - Semi-Annual TMDL</b>				
<b>Sampled: 2/24/2022 10:30:00 AM</b>						
pH	SM 4500 H + B	7.19	SU		02/24/22 10:30	cli
Dissolved Oxygen	SM 4500 O G	9.63	mg/L		02/24/22 10:30	cli
Temperature		60.9	°F		02/24/22 10:30	cli
E. Coli	IDEXX Colilert 18	250	MPN/100ml	02/24/22 17:45	02/25/22 15:20	JER
Total Suspended Solids	SM 2540 D	11.0	mg/L		02/25/22 13:59	DW
Phosphorus, Total	HACH 8190	0.11	mg/L		02/25/22 17:20	SB

HACH EPA Compliant Methods

IDEXX Quanti-Tray 2000 MPN Colilert 18

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cli Client

DW Daneen Wilson

JER Joanna Rowlen

SB Seyvon Brown

Approved By

Daneen Wilson  
 Lab Manager





2607 Commerce Blvd.  
 Birmingham, AL 35210  
 Phone: (205) 951-3400  
 www.emcbham.com

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 200 Century Park South  
 Suite 212  
 Birmingham, AL 35226

Lab Number: 20220597  
 Date Reported: 2/28/2022  
 Date Received: 2/24/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20220597-01</b>		<b>Description: CVC Oak Mtn. Ampitheater - Semi-Annual TMDL</b>				
Sampled: 2/24/2022 11:06:00 AM						
pH	SM 4500 H + B	6.97	SU		02/24/22 11:06	cli
Dissolved Oxygen	SM 4500 O G	9.35	mg/L		02/24/22 11:06	cli
Temperature		60.9	°F		02/24/22 11:06	cli
E. Coli	IDEXX Colilert 18	50	MPN/100ml	02/24/22 17:45	02/25/22 15:20	JER
Total Suspended Solids	SM 2540 D	9.00	mg/L		02/25/22 13:59	DW
Phosphorus, Total	HACH 8190	0.03	mg/L		02/25/22 17:20	SB

<b>Sample No: 20220597-02</b>		<b>Description: CVC Police Firing Range - Semi-Annual TMDL</b>				
Sampled: 2/24/2022 10:42:00 AM						
pH	SM 4500 H + B	7.16	SU		02/24/22 10:42	cli
Dissolved Oxygen	SM 4500 O G	9.49	mg/L		02/24/22 10:42	cli
Temperature		61.0	°F		02/24/22 10:42	cli
E. Coli	IDEXX Colilert 18	250	MPN/100ml	02/24/22 17:45	02/25/22 15:20	JER
Total Suspended Solids	SM 2540 D	3.00	mg/L		02/25/22 13:59	DW
Phosphorus, Total	HACH 8190	*B (<0.02)	mg/L		02/25/22 17:20	SB

ADEM/EPA NODI code \*B: result is below detection limit

HACH EPA Compliant Methods

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cli Client

DW Daneen Wilson

JER Joanna Rowlen

SB Seyvon Brown

Approved By

Daneen Wilson  
 Lab Manager





2607 Commerce Blvd.  
 Birmingham, AL 35210  
 Phone: (205) 951-3400  
 www.emcbham.com

Municipal Consultants - Pelham  
 200 Century Park South  
 Suite 212  
 Birmingham, AL 35226

Lab Number: 20220688  
 Date Reported: 3/7/2022  
 Date Received: 3/3/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20220688-01</b>		<b>Description: Buck Creek BUCS-4 - Semi-Annual TMDL</b>				
<b>Sampled: 3/3/2022 11:30:00 AM</b>						
pH	SM 4500 H + B	7.43	SU		03/03/22 11:30	cli
Dissolved Oxygen	SM 4500 O G	10.3	mg/L		03/03/22 11:30	cli
Temperature		61.5	°F		03/03/22 11:30	cli
E. Coli	IDEXX Colilert 18	150	MPN/100ml	03/03/22 17:25	03/04/22 15:20	SB
Total Suspended Solids	SM 2540 D	3.00	mg/L		03/04/22 15:43	DW
Phosphorus, Total	HACH 8190	0.14	mg/L		03/04/22 8:24	SB

<b>Sample No: 20220688-02</b>		<b>Description: Buck Creek Police Firing Range - Semi-Annual TMDL</b>				
<b>Sampled: 3/3/2022 1:56:00 PM</b>						
Water Level		5.20	feet		03/03/22 13:56	cli
pH	SM 4500 H + B	7.85	SU		03/03/22 13:56	cli
Dissolved Oxygen	SM 4500 O G	10.6	mg/L		03/03/22 13:56	cli
Temperature		62.7	°F		03/03/22 13:56	cli
E. Coli	IDEXX Colilert 18	<50	MPN/100ml	03/03/22 17:25	03/04/22 15:20	SB
Total Suspended Solids	SM 2540 D	6.00	mg/L		03/04/22 15:43	DW
Phosphorus, Total	HACH 8190	0.10	mg/L		03/04/22 8:24	SB

HACH EPA Compliant Methods

IDEXX Quanti-Tray 2000 MPN Colilert 18

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DW Daneen Wilson

SB Seyvon Brown

Approved By

Daneen Wilson  
 Lab Manager





2607 Commerce Blvd.  
 Birmingham, AL 35210  
 Phone: (205) 951-3400  
 www.emcbham.com

Municipal Consultants - Pelham  
 200 Century Park South  
 Suite 212  
 Birmingham, AL 35226

Lab Number: 20220689  
 Date Reported: 3/7/2022  
 Date Received: 3/3/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20220689-01</b>		<b>Description: CVC Oak Mtn Ampitheater - Semi-Annual TMDL</b>				
<b>Sampled: 3/3/2022 2:34:00 PM</b>						
pH	SM 4500 H + B	7.57	SU		03/03/22 14:34	cli
Dissolved Oxygen	SM 4500 O G	9.74	mg/L		03/03/22 14:34	cli
Temperature		63.6	°F		03/03/22 14:34	cli
E. Coli	IDEXX Colilert 18	50	MPN/100ml	03/03/22 17:25	03/04/22 15:20	SB
Total Suspended Solids	SM 2540 D	2.00	mg/L		03/04/22 15:43	DW
Phosphorus, Total	HACH 8190	*B (<0.02)	mg/L		03/04/22 8:25	SB

<b>Sample No: 20220689-02</b>		<b>Description: CVC Police Firing Range - Semi-Annual TMDL</b>				
<b>Sampled: 3/3/2022 2:11:00 PM</b>						
pH	SM 4500 H + B	7.68	SU		03/03/22 14:11	cli
Dissolved Oxygen	SM 4500 O G	10.3	mg/L		03/03/22 14:11	cli
Temperature		62.9	°F		03/03/22 14:11	cli
E. Coli	IDEXX Colilert 18	100	MPN/100ml	03/03/22 17:25	03/04/22 15:20	SB
Total Suspended Solids	SM 2540 D	4.00	mg/L		03/04/22 15:43	DW
Phosphorus, Total	HACH 8190	*B (<0.02)	mg/L		03/04/22 8:25	SB

ADEM/EPA NODI code \*B: result is below detection limit

HACH EPA Compliant Methods

IDEXX Quanti-Tray 2000 MPN Colilert 18

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DW Daneen Wilson

SB Seyvon Brown

Approved By

Daneen Wilson  
 Lab Manager

0689

Chain of Custody Record

2607 Commerce Boulevard  
 Birmingham, AL 35210  
 (205) 951-3400  
 (800) 239-2837  
 (205) 951-0808 FAX  
 www.emcbham.com



ENVIRO MANAGEMENT CORP.

<b>CLIENT</b> City of Pelham/MCI		<b>P.O. #</b> ( 205 ) 822-0387	<b>PHONE #</b> ( 205 ) 822-0387	<b>FAX #</b> ( 205 ) 822-0386	<b>TURN AROUND TIME</b> <input type="checkbox"/> STANDARD <input type="checkbox"/> RUSH <input type="checkbox"/> PRIORITY ONE							
<b>PROJECT NAME</b> TMDL Sampling - City of Pelham												
<b>ADDRESS (STREET, CITY, ZIP)</b> 200 Century Park S STE 212 Birmingham AL												
<b>ATTENTION</b> Andrew Golden												
<b>SAMPLERS: (Signature)</b> <i>Wells Garner</i>												
START DATE	START TIME	STOP DATE	STOP TIME	SPECIFIC LOCATION	MATRIX	# OF CONTAINERS	PRESERVATIVE	F. COL.	Total Suspended Solids	Total Phos (Hach Method)	REMARKS	SAMPLES
3-3-22	2:29 pm	3-3-22	2:34 pm	Cahaba Valley Creek	H2O	1P	-		X		pH: 7.57 DO: 9.79 mg/L Temp: 63.6°F	(✓)
				Oak Mtn. Ampitheater	H2O	1P	E	X				(✓)
					H2O	1P	A		X			(✓)
3-3-22	2:06 pm	3-3-22	2:11 pm	Cahaba Valley Creek	H2O	1P	-		X		pH: 7.68 DO: 10.28 mg/L Temp: 62.9°F	(✓)
				Police Firing Range	H2O	1P	E	X				(✓)
					H2O	1P	A		X			(✓)
<b>Relinquished by: (Signature)</b> <i>Wells Garner</i>						<b>Date/Time</b> 3-3-22 4:30 pm	<b>Received by: (Signature)</b> <i>Haley Jones</i>	<b>Date/Time</b> 3-3-22 4:40 pm	<b>Relinquished by: (Signature)</b>	<b>Date/Time</b>	<b>Received by: (Signature)</b>	<b>Date/Time</b>
<b>Relinquished by: (Signature)</b> <i>Wells Garner</i>						<b>Date/Time</b>	<b>Received for Laboratory by: (Signature)</b> <i>Haley Jones</i>	<b>Date/Time</b>	<b>Remarks</b> EColi Dilutions 50,10,1.0,0.1mL Include Count, Avg. Data with Results Total P - use method with lowest detection limit			

\* A=H<sub>2</sub>SO<sub>4</sub> B=HCL C=HNO<sub>3</sub> D=NaOH E=Na<sub>2</sub>SO<sub>3</sub>



2607 Commerce Blvd.  
 Birmingham, AL 35210  
 Phone: (205) 951-3400  
 www.emcbham.com

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 200 Century Park South  
 Suite 212  
 Birmingham, AL 35226

Lab Number: 20220636  
 Date Reported: 3/4/2022  
 Date Received: 3/1/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20220636-01</b>		<b>Description: Buck Creek BUCS-4 - Semi-Annual TMDL</b>				
<b>Sampled: 3/1/2022 9:23:00 AM</b>						
pH	SM 4500 H + B	7.22	SU		03/01/22 9:23	cli
Dissolved Oxygen	SM 4500 O G	10.20	mg/L		03/01/22 9:23	cli
Temperature		55.9	°F		03/01/22 9:23	cli
E. Coli	IDEXX Colilert 18	50	MPN/100ml	03/01/22 16:03	03/02/22 14:00	SB
Total Suspended Solids	SM 2540 D	5.00	mg/L		03/01/22 14:00	JER
Phosphorus, Total	HACH 8190	0.21	mg/L		03/04/22 9:15	SB

<b>Sample No: 20220636-02</b>		<b>Description: Buck Creek Police Firing Range - Semi-Annual TMDL</b>				
<b>Sampled: 3/1/2022 9:49:00 AM</b>						
Water Level		5.40	feet		03/01/22 9:49	cli
pH	SM 4500 H + B	7.72	SU		03/01/22 9:49	cli
Dissolved Oxygen	SM 4500 O G	10.98	mg/L		03/01/22 9:49	cli
Temperature		54.7	°F		03/01/22 9:49	cli
E. Coli	IDEXX Colilert 18	200	MPN/100ml	03/01/22 16:03	03/02/22 14:00	SB
Total Suspended Solids	SM 2540 D	5.00	mg/L		03/01/22 14:00	JER
Phosphorus, Total	HACH 8190	0.12	mg/L		03/04/22 9:15	SB

HACH EPA Compliant Methods

IDEXX Quanti-Tray 2000 MPN Colilert 18

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cli Client

JER Joanna Rowlen

SB Seyvon Brown

Approved By

Daneen Wilson  
 Lab Manager





2607 Commerce Blvd.  
 Birmingham, AL 35210  
 Phone: (205) 951-3400  
 www.emcbham.com

Municipal Consultants - Pelham  
 200 Century Park South  
 Suite 212  
 Birmingham, AL 35226

Lab Number: 20220637  
 Date Reported: 3/4/2022  
 Date Received: 3/1/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20220637-01</b>		<b>Description: CVC Oak Mtn. Ampitheater - Semi-Annual TMDL</b>				
<b>Sampled: 3/1/2022 10:24:00 AM</b>						
pH	SM 4500 H + B	7.69	SU		03/01/22 10:24	cli
Dissolved Oxygen	SM 4500 O G	10.42	mg/L		03/01/22 10:24	cli
Temperature		54.8	°F		03/01/22 10:24	cli
E. Coli	IDEXX Colilert 18	150	MPN/100ml	03/01/22 16:03	03/02/22 14:00	SB
Total Suspended Solids	SM 2540 D	3.00	mg/L		03/01/22 14:00	JER
Phosphorus, Total	HACH 8190	0.03	mg/L		03/04/22 9:15	SB

<b>Sample No: 20220637-02</b>		<b>Description: CVC Police Firing Range - Semi-Annual TMDL</b>				
<b>Sampled: 3/1/2022 10:01:00 AM</b>						
pH	SM 4500 H + B	7.36	SU		03/01/22 10:01	cli
Dissolved Oxygen	SM 4500 O G	10.69	mg/L		03/01/22 10:01	cli
Temperature		54.6	°F		03/01/22 10:01	cli
E. Coli	IDEXX Colilert 18	250	MPN/100ml	03/01/22 16:03	03/02/22 14:00	SB
Total Suspended Solids	SM 2540 D	8.00	mg/L		03/01/22 14:00	JER
Phosphorus, Total	HACH 8190	*B (<0.02)	mg/L		03/04/22 9:15	SB

ADEM/EPA NODI code \*B: result is below detection limit

HACH EPA Compliant Methods

IDEXX Quanti-Tray 2000 MPN Colilert 18

Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998.

cli Client

JER Joanna Rowlen

SB Seyvon Brown

Approved By

Daneen Wilson  
 Lab Manager

0637

Chain of Custody Record

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 Birmingham, AL 35210  
 (205) 951-3400  
 (800) 239-2837  
 (205) 951-0808 FAX  
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ENVIRO MANAGEMENT CORP.

CLIENT <b>City of Pelham/MCI</b>		P.O. #  	PHONE # ( 205 ) 822-0387	FAX # ( 205 ) 822-0386	TURN AROUND TIME <input type="checkbox"/> STANDARD <input type="checkbox"/> RUSH <input type="checkbox"/> PRIORITY ONE
ADDRESS (STREET, CITY, ZIP) <b>200 Century Park S STE 212 Birmingham AL</b>		PROJECT NAME <b>TMDL Sampling - City of Pelham</b>			
ATTENTION <b>Andrew Golden</b>		# OF CONTAINERS 1P	PRESERVATIVE E	Total Suspended Solids  	REMARKS  pH = 7.69 DO = 10.42 mg/L Temp = 54.8°F  pH = 7.36 DO = 10.69 mg/L Temp = 54.6°F
SAMPLERS: (Signature) <i>Wells Garner</i>		MATRIX H2O	RELINQUISHED BY: (Signature)  	RECEIVED BY: (Signature)  	
START DATE 3-1-22	STOP DATE 3-1-22	SPECIFIC LOCATION Cahaba Valley Creek	DATE/TIME 10:19 am	DATE/TIME 10:24 am	
START TIME 10:19 am	STOP TIME 10:24 am	SPECIFIC LOCATION Oak Mtn. Ampitheater	DATE/TIME 10:01 am	DATE/TIME 10:01 am	
START TIME 10:01 am	STOP TIME 10:01 am	SPECIFIC LOCATION Cahaba Valley Creek	DATE/TIME 10:01 am	DATE/TIME 10:01 am	
START TIME 10:01 am	STOP TIME 10:01 am	SPECIFIC LOCATION Police Firing Range	DATE/TIME 10:01 am	DATE/TIME 10:01 am	
START TIME 10:01 am	STOP TIME 10:01 am	SPECIFIC LOCATION  	DATE/TIME  	DATE/TIME  	
START TIME  	STOP TIME  	SPECIFIC LOCATION  	DATE/TIME  	DATE/TIME  	
START TIME  	STOP TIME  	SPECIFIC LOCATION  	DATE/TIME  	DATE/TIME  	
START TIME  	STOP TIME  	SPECIFIC LOCATION  	DATE/TIME  	DATE/TIME  	
Relinquished by: (Signature) <i>Wells Garner</i>		Received by: (Signature) <i>Spitz Garbony 3/1 12:36</i>	Relinquished by: (Signature)  	Received by: (Signature)  	
Relinquished by: (Signature)  		Received for Laboratory by: (Signature)  	Date/Time  	Date/Time  	Remarks EColi Dilutions 50,10,1.0,0.1 mL Include Count, Avg. Data with Results Total P - use method with lowest detection limit

\* A=H<sub>2</sub>SO<sub>4</sub> B=HCL C=HNO<sub>3</sub> D=NaOH E=Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>



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Lab Number: 20222040  
 Date Reported: 7/25/2022  
 Date Received: 7/12/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20222040-01</b>		<b>Description: Buck Creek BUCS-4 - Semi-Annual TMDL Sampling</b>				
<b>Sampled: 7/12/2022 9:19:00 AM</b>						
pH	SM 4500 H + B	7.53	SU		07/12/22 9:19	cli
Dissolved Oxygen	SM 4500 O G	7.29	mg/L		07/12/22 9:19	cli
Temperature		77.1	°F		07/12/22 9:19	cli
E. Coli	IDEXX Colilert 18	100	MPN/100ml	07/12/22 16:40	07/13/22 13:00	JER
Total Suspended Solids	SM 2540 D	4.00	mg/L		07/13/22 17:02	DW
Phosphorus, Total	HACH 8190	0.08	mg/L		07/20/22 7:52	SB

<b>Sample No: 20222040-02</b>		<b>Description: Buck Creek Police Firing Range - Semi-Annual TMDL Sampling</b>				
<b>Sampled: 7/12/2022 9:51:00 AM</b>						
Water Level		4.50	feet		07/12/22 9:51	cli
pH	SM 4500 H + B	7.74	SU		07/12/22 9:51	cli
Dissolved Oxygen	SM 4500 O G	7.61	mg/L		07/12/22 9:51	cli
Temperature		77.5	°F		07/12/22 9:51	cli
E. Coli	IDEXX Colilert 18	550	MPN/100ml	07/12/22 16:40	07/13/22 13:00	JER
Total Suspended Solids	SM 2540 D	9.00	mg/L		07/13/22 17:02	DW
Phosphorus, Total	HACH 8190	0.09	mg/L		07/20/22 7:52	SB

HACH EPA Compliant Methods  
 IDEXX Quanti-Tray 2000 MPN Colilert 18  
 Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998.

cli Client

DW Daneen Wilson

JER Joanna Rowlen

SB Seyvon Brown

Approved By

Daneen Wilson  
 Lab Manager

2040

Chain of Custody Record

2607 Commerce Boulevard  
 Birmingham, AL 35210  
 (205) 951-3400  
 (800) 239-2837  
 (205) 951-0808 FAX  
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ENVIRO MANAGEMENT CORP.

CLIENT <b>City of Pelham/MCI</b>		P.O. #		PHONE # ( 205 ) 822-0387		FAX # ( 205 ) 822-0386		TURN AROUND TIME	
ADDRESS (STREET, CITY, ZIP) <b>200 Century Park S STE 212 Birmingham AL</b>		PROJECT NAME <b>TMDL Sampling - City of Pelham</b>							
ATTENTION <b>Andrew Golden</b>		MATRIX		# OF CONTAINERS		PRESERVATIVE		REMARKS	
SAMPLERS: (Signature) <i>Wells Garner</i>		SPECIFIC LOCATION		E. Coli		Total Suspended Solids		Total Phos (Hach Method)	
START DATE	STOP DATE	TIME COLLECTED	COMP	GRAB					
1.12.22 9:14 am	1.12.22 9:19 am	9:19 am	G	G	Buck Creek	H2O	1P	-	X
			G	G	BUCS - 4	H2O	1P	E	X
			G	G		H2O	1P	A	X
7.12.22 9:46 am	7.12.22 9:51 am	9:51 am	G	G	Buck Creek	H2O	1P	-	X
			G	G	Police Firing Range	H2O	1P	E	X
			G	G		H2O	1P	A	X

Relinquished by: (Signature) <i>Wells Garner</i>	Date/Time 12/22/22 11:10 am	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature) <i>Haley Jones</i>	Date/Time 7/12/22 11:10 am

\* A=H<sub>2</sub>SO<sub>4</sub>, B=HCL C=HNO<sub>3</sub> D=NaOH E=Na<sub>2</sub>SO<sub>3</sub>

Remarks  
 EColi Dilutions 50,10,1,0,0.1mL  
 Include Count, Avg. Data with Results  
 Total P - use method with lowest detection limit



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Municipal Consultants - Pelham  
 200 Century Park South  
 Suite 212  
 Birmingham, AL 35226

Lab Number: 20222041  
 Date Reported: 7/25/2022  
 Date Received: 7/12/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20222041-01</b>		<b>Description: CVC Oak Mtn Ampitheater - Semi-Annual TMDL Sampling</b>				
<b>Sampled: 7/12/2022 10:46:00 AM</b>						
pH	SM 4500 H + B	7.60	SU		07/12/22 10:46	cli
Dissolved Oxygen	SM 4500 O G	7.16	mg/L		07/12/22 10:46	cli
Temperature		76.8	°F		07/12/22 10:46	cli
E. Coli	IDEXX Colilert 18	250	MPN/100ml	07/12/22 16:40	07/13/22 13:00	JER
Total Suspended Solids	SM 2540 D	2.00	mg/L		07/13/22 17:02	DW
Phosphorus, Total	HACH 8190	0.07	mg/L		07/20/22 7:52	SB

<b>Sample No: 20222041-02</b>		<b>Description: CVC Police Firing Range - Semi-Annual TMDL Sampling</b>				
<b>Sampled: 7/12/2022 10:05:00 AM</b>						
pH	SM 4500 H + B	7.71	SU		07/12/22 10:05	cli
Dissolved Oxygen	SM 4500 O G	7.63	mg/L		07/12/22 10:05	cli
Temperature		76.5	°F		07/12/22 10:05	cli
E. Coli	IDEXX Colilert 18	100	MPN/100ml	07/12/22 16:40	07/13/22 13:00	JER
Total Suspended Solids	SM 2540 D	4.00	mg/L		07/13/22 17:02	DW
Phosphorus, Total	HACH 8190	0.08	mg/L		07/20/22 7:52	SB

HACH EPA Compliant Methods

IDEXX Quanti-Tray 2000 MPN Colilert 18

Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998.

cli Client

DW Daneen Wilson

JER Joanna Rowlen

SB Seyvon Brown

Approved By

Daneen Wilson  
 Lab Manager







2607 Commerce Boulevard  
 Birmingham, AL 35210  
 (205) 951-3400  
 (800) 239-2837  
 (205) 951-0808 FAX  
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2094

Chain of Custody Record

<b>CLIENT</b> City of Pelham/MCI		<b>P.O. #</b> ( 205 ) 822-0387		<b>FAX #</b> ( 205 ) 822-0386		<b>TURN AROUND TIME</b> <input type="checkbox"/> STANDARD <input type="checkbox"/> RUSH <input type="checkbox"/> PRIORITY ONE	
<b>ADDRESS (STREET, CITY, ZIP)</b> 200 Century Park S STE 212 Birmingham AL		<b>PROJECT NAME</b> TMDL Sampling - City of Pelham					
<b>ATTENTION</b> Andrew Golden		<b>MATRIX</b> H2O		<b># OF CONTAINERS</b> 1P		<b>REMARKS</b> pH: 7.93 DO: 7.37 mg/L Temp: 75.9°F	
<b>SAMPLERS: (Signature)</b> <i>Welth Garner</i>		<b>SPECIFIC LOCATION</b> BUCK CREEK		<b>PREPARED BY</b> E		<b>SAMPLES</b> (✓)	
<b>START DATE</b> 1.14.22		<b>STOP DATE</b> 1.14.22		<b>DATE/TIME</b> 9:31 AM		<b>DATE/TIME</b> 9:32 AM	
<b>START TIME</b> 9:16 AM		<b>STOP TIME</b> 9:31 AM		<b>DATE/TIME</b> 9:57 AM		<b>DATE/TIME</b> 9:57 AM	
<b>DATE</b> 1.14.22		<b>DATE</b> 1.14.22		<b>DATE</b> 1.14.22		<b>DATE</b> 1.14.22	
<b>TIME</b> 9:16 AM		<b>TIME</b> 9:31 AM		<b>TIME</b> 9:57 AM		<b>TIME</b> 9:57 AM	
<b>COLLECTED</b> G		<b>COLLECTED</b> G		<b>COLLECTED</b> G		<b>COLLECTED</b> G	
<b>COMP</b> G		<b>COMP</b> G		<b>COMP</b> G		<b>COMP</b> G	
<b>GRAB</b> G		<b>GRAB</b> G		<b>GRAB</b> G		<b>GRAB</b> G	
<b>DATE/TIME</b> 1.14.22 9:31 AM		<b>DATE/TIME</b> 1.14.22 9:57 AM		<b>DATE/TIME</b> 1.14.22 9:57 AM		<b>DATE/TIME</b> 1.14.22 9:57 AM	
<b>RECEIVED BY: (Signature)</b> <i>Welth Garner</i>		<b>RECEIVED BY: (Signature)</b> <i>Diul</i>		<b>RECEIVED BY: (Signature)</b> <i>Diul</i>		<b>RECEIVED BY: (Signature)</b> <i>Diul</i>	
<b>DATE/TIME</b> 1.14.22 9:31 AM		<b>DATE/TIME</b> 1.14.22 9:57 AM		<b>DATE/TIME</b> 1.14.22 9:57 AM		<b>DATE/TIME</b> 1.14.22 9:57 AM	
<b>RELINQUISHED BY: (Signature)</b> <i>Welth Garner</i>		<b>RELINQUISHED BY: (Signature)</b> <i>Diul</i>		<b>RELINQUISHED BY: (Signature)</b> <i>Diul</i>		<b>RELINQUISHED BY: (Signature)</b> <i>Diul</i>	
<b>DATE/TIME</b> 1.14.22 9:31 AM		<b>DATE/TIME</b> 1.14.22 9:57 AM		<b>DATE/TIME</b> 1.14.22 9:57 AM		<b>DATE/TIME</b> 1.14.22 9:57 AM	

EColi Dilutions 50,10,1.0,0.1 mL  
 Include Count, Avg. Data with Results  
 Total P - use method with lowest detection limit

\* A=H<sub>2</sub>SO<sub>4</sub> B=HCL C=HNO<sub>3</sub> D=NaOH E=Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>



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 Birmingham, AL 35226

Lab Number: 20222095  
 Date Reported: 7/25/2022  
 Date Received: 7/14/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20222095-01</b>		<b>Description: CVC Oak Mtn Ampitheater - Semi-Annual TMDL Sampling</b>				
<b>Sampled: 7/14/2022 10:37:00 AM</b>						
pH	SM 4500 H + B	9.43	SU		07/14/22 10:37	cli
Dissolved Oxygen	SM 4500 O G	7.33	mg/L		07/14/22 10:37	cli
Temperature		76.2	°F		07/14/22 10:37	cli
E. Coli	IDEXX Colilert 18	<50	MPN/100ml	07/14/22 17:10	07/15/22 11:35	JER
Total Suspended Solids	SM 2540 D	2.00	mg/L		07/15/22 18:00	JER
Phosphorus, Total	HACH 8190	*B (<0.02)	mg/L		07/20/22 7:58	SB

<b>Sample No: 20222095-02</b>		<b>Description: CVC Police Firing Range - Semi-Annual TMDL Sampling</b>				
<b>Sampled: 7/14/2022 10:09:00 AM</b>						
pH	SM 4500 H + B	9.55	SU		07/14/22 10:09	cli
Dissolved Oxygen	SM 4500 O G	7.86	mg/L		07/14/22 10:09	cli
Temperature		76.1	°F		07/14/22 10:09	cli
E. Coli	IDEXX Colilert 18	300	MPN/100ml	07/14/22 17:10	07/15/22 11:35	JER
Total Suspended Solids	SM 2540 D	4.00	mg/L		07/15/22 18:00	JER
Phosphorus, Total	HACH 8190	*B (<0.02)	mg/L		07/20/22 7:58	SB

ADEM/EPA NODI code \*B: result is below method detection limit

HACH EPA Compliant Methods

IDEXX Quanti-Tray 2000 MPN Colilert 18

Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998.

cli Client

JER Joanna Rowlen

SB Seyvon Brown

Approved By

Dancien Wilson  
 Lab Manager





2607 Commerce Blvd.  
 Birmingham, AL 35210  
 Phone: (205) 951-3400  
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 200 Century Park South  
 Suite 212  
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Lab Number: 20222164  
 Date Reported: 7/25/2022  
 Date Received: 7/20/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20222164-01</b>		<b>Description: Buck Creek BUCS-4 - Semi-Annual TMDL Sampling</b>				
<b>Sampled: 7/20/2022 8:51:00 AM</b>						
pH	SM 4500 H + B	7.52	SU		07/20/22 8:51	cli
Dissolved Oxygen	SM 4500 O G	7.20	mg/L		07/20/22 8:51	cli
Temperature		76.8	°F		07/20/22 8:51	cli
E. Coli	IDEXX Colilert 18	300	MPN/100ml	07/20/22 16:30	07/21/22 13:30	SB
Total Suspended Solids	SM 2540 D	6.00	mg/L		07/21/22 16:05	DW
Phosphorus, Total	HACH 8190	0.10	mg/L		07/20/22 16:09	SB

<b>Sample No: 20222164-02</b>		<b>Description: Buck Creek Police Firing Range - Semi-Annual TMDL Sampling</b>				
<b>Sampled: 7/20/2022 9:21:00 AM</b>						
Water Level		4.40	feet		07/20/22 9:21	cli
pH	SM 4500 H + B	7.60	SU		07/20/22 9:21	cli
Dissolved Oxygen	SM 4500 O G	7.57	mg/L		07/20/22 9:21	cli
Temperature		78.0	°F		07/20/22 9:21	cli
E. Coli	IDEXX Colilert 18	150	MPN/100ml	07/20/22 16:30	07/21/22 13:30	SB
Total Suspended Solids	SM 2540 D	12.0	mg/L		07/21/22 16:05	DW
Phosphorus, Total	HACH 8190	0.06	mg/L		07/20/22 16:09	SB

ADEM/EPA NODI code \*B: result is below method detection limit

HACH EPA Compliant Methods

IDEXX Quanti-Tray 2000 MPN Colilert 18

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cli Client

DW Daneen Wilson

SB Seyvon Brown

Approved By

Daneen Wilson

Lab Manager



2607 Commerce Boulevard  
 Birmingham, AL 35210  
 (205) 951-3400  
 (800) 239-2837  
 (205) 951-0808 FAX  
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2164

Chain of Custody Record

CLIENT <b>City of Pelham/MCI</b>		P.O. #		PHONE # ( 205 ) 822-0387		FAX # ( 205 ) 822-0386		TURN AROUND TIME <input type="checkbox"/> STANDARD <input type="checkbox"/> RUSH <input type="checkbox"/> PRIORITY ONE	
ADDRESS (STREET, CITY, ZIP) <b>200 Century Park S STE 212 Birmingham AL</b>		PROJECT NAME <b>TMDL Sampling - City of Pelham</b>							
ATTENTION <b>Andrew Golden</b>		MATRIX <b>H2O</b>		# OF CONTAINERS <b>1P</b>		# PRESERVATIVE <b>-</b>		REMARKS <b>pH = 7.52 DO = 7.2 mg/L Temp = 76.8°F</b>	
SAMPLERS: (Signature) <i>Wells Garner</i>		SPECIFIC LOCATION <b>Buck Creek</b>		F. Coli		Total Suspended Solids		Total Phos (Tech Method)	
START DATE <b>7.20.22</b>		STOP DATE <b>7.20.22</b>		G-GRAB <input checked="" type="checkbox"/> G		G-COMP <input type="checkbox"/> G		H2O	
START TIME <b>8:46 am</b>		STOP TIME <b>8:51 am</b>		COLLECTED TIME <b>8:51 am</b>		G-GRAB <input type="checkbox"/> G		H2O	
DATE <b>7.20.22</b>		DATE <b>7.20.22</b>		TIME <b>9:21 am</b>		G-GRAB <input type="checkbox"/> G		H2O	
DATE <b>7.20.22</b>		DATE <b>7.20.22</b>		TIME <b>9:31 am</b>		G-GRAB <input type="checkbox"/> G		H2O	
DATE <b>7.20.22</b>		DATE <b>7.20.22</b>		TIME <b>9:31 am</b>		G-GRAB <input type="checkbox"/> G		H2O	
DATE <b>7.20.22</b>		DATE <b>7.20.22</b>		TIME <b>9:31 am</b>		G-GRAB <input type="checkbox"/> G		H2O	
DATE <b>7.20.22</b>		DATE <b>7.20.22</b>		TIME <b>9:31 am</b>		G-GRAB <input type="checkbox"/> G		H2O	
DATE <b>7.20.22</b>		DATE <b>7.20.22</b>		TIME <b>9:31 am</b>		G-GRAB <input type="checkbox"/> G		H2O	
DATE <b>7.20.22</b>		DATE <b>7.20.22</b>		TIME <b>9:31 am</b>		G-GRAB <input type="checkbox"/> G		H2O	
DATE <b>7.20.22</b>		DATE <b>7.20.22</b>		TIME <b>9:31 am</b>		G-GRAB <input type="checkbox"/> G		H2O	
DATE <b>7.20.22</b>		DATE <b>7.20.22</b>		TIME <b>9:31 am</b>		G-GRAB <input type="checkbox"/> G		H2O	
DATE <b>7.20.22</b>		DATE <b>7.20.22</b>		TIME <b>9:31 am</b>		G-GRAB <input type="checkbox"/> G		H2O	
DATE <b>7.20.22</b>		DATE <b>7.20.22</b>		TIME <b>9:31 am</b>		G-GRAB <input type="checkbox"/> G		H2O	
DATE <b>7.20.22</b>		DATE <b>7.20.22</b>		TIME <b>9:31 am</b>		G-GRAB <input type="checkbox"/> G		H2O	
DATE <b>7.20.22</b>		DATE <b>7.20.22</b>		TIME <b>9:31 am</b>		G-GRAB <input type="checkbox"/> G		H2O	
DATE <b>7.20.22</b>		DATE <b>7.20.22</b>		TIME <b>9:31 am</b>		G-GRAB <input type="checkbox"/> G		H2O	
DATE <b>7.20.22</b>		DATE <b>7.20.22</b>		TIME <b>9:31 am</b>		G-GRAB <input type="checkbox"/> G		H2O	
DATE <b>7.20.22</b>		DATE <b>7.20.22</b>		TIME <b>9:31 am</b>		G-GRAB <input type="checkbox"/> G		H2O	
DATE <b>7.20.22</b>		DATE <b>7.20.22</b>		TIME <b>9:31 am</b>		G-GRAB <input type="checkbox"/> G		H2O	
DATE <b>7.20.22</b>		DATE <b>7.20.22</b>		TIME <b>9:31 am</b>		G-GRAB <input type="checkbox"/> G		H2O	
DATE <b>7.20.22</b>		DATE <b>7.20.22</b>		TIME <b>9:31 am</b>		G-GRAB <input type="checkbox"/> G		H2O	
DATE <b>7.20.22</b>		DATE <b>7.20.22</b>		TIME <b>9:31 am</b>		G-GRAB <input type="checkbox"/> G		H2O	
DATE <b>7.20.22</b>		DATE <b>7.20.22</b>		TIME <b>9:31 am</b>		G-GRAB <input type="checkbox"/> G		H2O	
DATE <b>7.20.22</b>		DATE <b>7.20.22</b>		TIME <b>9:31 am</b>		G-GRAB <input type="checkbox"/> G		H2O	
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2607 Commerce Blvd,  
 Birmingham, AL 35210  
 Phone: (205) 951-3400  
 www.emcbham.com

Municipal Consultants - Pelham  
 200 Century Park South  
 Suite 212  
 Birmingham, AL 35226

Lab Number: 20222165  
 Date Reported: 7/25/2022  
 Date Received: 7/20/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20222165-01</b>						
<b>Description: CVC Oak Mtn Ampitheater - Semi-Annual TMDL Sampling</b>						
<b>Sampled: 7/20/2022 9:54:00 AM</b>						
pH	SM 4500 H + B	7.59	SU		07/20/22 9:54	cli
Dissolved Oxygen	SM 4500 O G	7.00	mg/L		07/20/22 9:54	cli
Temperature		78.8	°F		07/20/22 9:54	cli
E. Coli	IDEXX Colilert 18	50	MPN/100ml	07/20/22 16:30	07/21/22 13:30	SB
Total Suspended Solids	SM 2540 D	4.00	mg/L		07/21/22 16:05	DW
Phosphorus, Total	HACH 8190	0.06	mg/L		07/20/22 16:09	SB

<b>Sample No: 20222165-02</b>						
<b>Description: CVC Police Firing Range - Semi-Annual TMDL Sampling</b>						
<b>Sampled: 7/20/2022 9:31:00 AM</b>						
pH	SM 4500 H + B	7.58	SU		07/20/22 9:31	cli
Dissolved Oxygen	SM 4500 O G	7.50	mg/L		07/20/22 9:31	cli
Temperature		77.6	°F		07/20/22 9:31	cli
E. Coli	IDEXX Colilert 18	200	MPN/100ml	07/20/22 16:30	07/21/22 13:30	SB
Total Suspended Solids	SM 2540 D	5.00	mg/L		07/21/22 16:05	DW
Phosphorus, Total	HACH 8190	0.06	mg/L		07/20/22 16:10	SB

HACH EPA Compliant Methods

IDEXX Quanti-Tray 2000 MPN Colilert 18

Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998.

cli Client

DW Daneen Wilson

SB Seyvon Brown

Approved By

Daneen Wilson

Lab Manager





2607 Commerce Blvd.  
 Birmingham, AL 35210  
 Phone: (205) 951-3400  
 www.emcbham.com

Municipal Consultants - Pelham  
 200 Century Park South  
 Suite 212  
 Birmingham, AL 35226

Lab Number: 20222183  
 Date Reported: 7/27/2022  
 Date Received: 7/21/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20222183-01</b>						
<b>Description: Buck Creek BUCS-4 - Semi-Annual TMDL Sampling</b>						
<b>Sampled: 7/21/2022 8:48:00 AM</b>						
pH	SM 4500 H + B	7.45	SU		07/21/22 8:48	cli
Dissolved Oxygen	SM 4500 O G	6.93	mg/L		07/21/22 8:48	cli
Temperature		77.6	°F		07/21/22 8:48	cli
E. Coli	IDEXX Colilert 18	200	MPN/100ml	07/21/22 14:30	07/22/22 13:50	SB
Total Suspended Solids	SM 2540 D	4.00	mg/L		07/23/22 9:46	DW
Phosphorus, Total	HACH 8190	0.10	mg/L		07/25/22 14:13	SB
<b>Sample No: 20222183-02</b>						
<b>Description: BC Police Firing Range - Semi-Annual TMDL Sampling</b>						
<b>Sampled: 7/21/2022 9:16:00 AM</b>						
Water Level		4.35	feet		07/21/22 9:16	cli
pH	SM 4500 H + B	7.69	SU		07/21/22 9:16	cli
Dissolved Oxygen	SM 4500 O G	7.50	mg/L		07/21/22 9:16	cli
Temperature		78.8	°F		07/21/22 9:16	cli
E. Coli	IDEXX Colilert 18	150	MPN/100ml	07/21/22 14:30	07/22/22 13:50	SB
Total Suspended Solids	SM 2540 D	9.00	mg/L		07/23/22 9:46	DW
Phosphorus, Total	HACH 8190	0.08	mg/L		07/25/22 14:14	SB

HACH EPA Compliant Methods

IDEXX Quanti-Tray 2000 MPN Colilert 18

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SB Seyvon Brown

Approved By

Daneen Wilson  
 Lab Manager





2607 Commerce Blvd.  
 Birmingham, AL 35210  
 Phone: (205) 951-3400  
 www.emcbham.com

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Lab Number: 20222184  
 Date Reported: 7/27/2022  
 Date Received: 7/21/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20222184-01</b>		<b>Description: CVC Oak Mtn Ampitheater - Semi-Annual TMDL Sampling</b>				
<b>Sampled: 7/21/2022 10:14:00 AM</b>						
pH	SM 4500 H + B	7.73	SU		07/21/22 10:14	cli
Dissolved Oxygen	SM 4500 O G	6.94	mg/L		07/21/22 10:14	cli
Temperature		79.5	°F		07/21/22 10:14	cli
E. Coli	IDEXX Colilert 18	50	MPN/100ml	07/21/22 14:30	07/22/22 13:50	SB
Total Suspended Solids	SM 2540 D	2.00	mg/L		07/23/22 9:46	DW
Phosphorus, Total	HACH 8190	0.06	mg/L		07/25/22 14:14	SB

<b>Sample No: 20222184-02</b>		<b>Description: CVC Police Firing Range - Semi-Annual TMDL Sampling</b>				
<b>Sampled: 7/21/2022 9:25:00 AM</b>						
pH	SM 4500 H + B	7.78	SU		07/21/22 9:25	cli
Dissolved Oxygen	SM 4500 O G	7.50	mg/L		07/21/22 9:25	cli
Temperature		77.9	°F		07/21/22 9:25	cli
E. Coli	IDEXX Colilert 18	400	MPN/100ml	07/21/22 14:30	07/22/22 13:50	SB
Total Suspended Solids	SM 2540 D	4.00	mg/L		07/23/22 9:46	DW
Phosphorus, Total	HACH 8190	0.03	mg/L		07/25/22 14:14	SB

HACH EPA Compliant Methods

IDEXX Quanti-Tray 2000 MPN Colilert 18

Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998.

cli Client

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SB Seyvon Brown

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Lab Manager





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 Birmingham, AL 35210  
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 www.emcbham.com

Municipal Consultants - Pelham  
 200 Century Park South  
 Suite 212  
 Birmingham, AL 35226

Lab Number: 20222206  
 Date Reported: 7/29/2022  
 Date Received: 7/26/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20222206-01</b>						
<b>Description: Buck Creek BUCS-4 - Semi-Annual TMDL Sampling</b>						
<b>Sampled: 7/26/2022 9:12:00 AM</b>						
pH	SM 4500 H + B	7.18	SU		07/26/22 9:12	cli
Dissolved Oxygen	SM 4500 O G	7.49	mg/L		07/26/22 9:12	cli
Temperature		75.3	°F		07/26/22 9:12	cli
E. Coli	IDEXX Colilert 18	400	MPN/100ml	07/26/22 14:48	07/27/22 12:40	SB
Total Suspended Solids	SM 2540 D	4.00	mg/L		07/27/22 13:30	DW
Phosphorus, Total	HACH 8190	0.10	mg/L		07/29/22 10:40	SB
<b>Sample No: 20222206-02</b>						
<b>Description: Buck Creek Police Firing Range - Semi-Annual TMDL Sampling</b>						
<b>Sampled: 7/26/2022 9:42:00 AM</b>						
Water Level		4.40	feet		07/26/22 9:42	cli
pH	SM 4500 H + B	7.55	SU		07/26/22 9:42	cli
Dissolved Oxygen	SM 4500 O G	7.78	mg/L		07/26/22 9:42	cli
Temperature		76.8	°F		07/26/22 9:42	cli
E. Coli	IDEXX Colilert 18	250	MPN/100ml	07/26/22 14:48	07/27/22 12:40	SB
Total Suspended Solids	SM 2540 D	9.00	mg/L		07/27/22 13:30	DW
Phosphorus, Total	HACH 8190	0.11	mg/L		07/29/22 10:40	SB

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DW Daneen Wilson

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Daneen Wilson  
 Lab Manager



2607 Commerce Boulevard  
 Birmingham, AL 35210  
 (205) 951-3400  
 (800) 239-2837  
 (205) 951-0808 FAX  
 www.emcbham.com

2205

Chain of Custody Record

CLIENT <b>City of Pelham/MCI</b>		P.O. #		PHONE # ( 205 ) 822-0387		FAX # ( 205 ) 822-0386		TURN AROUND TIME <input type="checkbox"/> STANDARD <input type="checkbox"/> RUSH <input type="checkbox"/> PRIORITY ONE			
PROJECT NAME <b>TMDL Sampling - City of Pelham</b>											
ADDRESS (STREET, CITY, ZIP) <b>200 Century Park S STE 212 Birmingham AL</b>		# OF CONTAINERS 1P		# PRESERVATIVE -		E. Coli		Total Suspended Solids		Total Phos (Hach Method)	
ATTENTION <b>Andrew Golden</b>		MATRIX H2O		H2O		H2O		H2O		REMARKS pH: 7.18 DO: 7.49 mg/L Temp: 75.3°F	
SAMPLERS: (Signature) <i>Welch Garner</i>		SPECIFIC LOCATION Buck Creek		G		G		G		(✓)	
START TIME 9:07 am		STOP TIME 9:12 am		TIME COLLECTED 9:12 am		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 9:12 am		G		G		(✓)	
START TIME 9:37 am		STOP TIME 9:42 am		TIME COLLECTED 9:42 am		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 9:42 am		G		G		(✓)	
START TIME 9:42 am		STOP TIME 9:47 am		TIME COLLECTED 9:47 am		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 9:47 am		G		G		(✓)	
START TIME 9:47 am		STOP TIME 9:52 am		TIME COLLECTED 9:52 am		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 9:52 am		G		G		(✓)	
START TIME 9:52 am		STOP TIME 9:57 am		TIME COLLECTED 9:57 am		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 9:57 am		G		G		(✓)	
START TIME 9:57 am		STOP TIME 10:02 am		TIME COLLECTED 10:02 am		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 10:02 am		G		G		(✓)	
START TIME 10:02 am		STOP TIME 10:07 am		TIME COLLECTED 10:07 am		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 10:07 am		G		G		(✓)	
START TIME 10:07 am		STOP TIME 10:12 am		TIME COLLECTED 10:12 am		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 10:12 am		G		G		(✓)	
START TIME 10:12 am		STOP TIME 10:17 am		TIME COLLECTED 10:17 am		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 10:17 am		G		G		(✓)	
START TIME 10:17 am		STOP TIME 10:22 am		TIME COLLECTED 10:22 am		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 10:22 am		G		G		(✓)	
START TIME 10:22 am		STOP TIME 10:27 am		TIME COLLECTED 10:27 am		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 10:27 am		G		G		(✓)	
START TIME 10:27 am		STOP TIME 10:32 am		TIME COLLECTED 10:32 am		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 10:32 am		G		G		(✓)	
START TIME 10:32 am		STOP TIME 10:37 am		TIME COLLECTED 10:37 am		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 10:37 am		G		G		(✓)	
START TIME 10:37 am		STOP TIME 10:42 am		TIME COLLECTED 10:42 am		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 10:42 am		G		G		(✓)	
START TIME 10:42 am		STOP TIME 10:47 am		TIME COLLECTED 10:47 am		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 10:47 am		G		G		(✓)	
START TIME 10:47 am		STOP TIME 10:52 am		TIME COLLECTED 10:52 am		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 10:52 am		G		G		(✓)	
START TIME 10:52 am		STOP TIME 10:57 am		TIME COLLECTED 10:57 am		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 10:57 am		G		G		(✓)	
START TIME 10:57 am		STOP TIME 11:02 am		TIME COLLECTED 11:02 am		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 11:02 am		G		G		(✓)	
START TIME 11:02 am		STOP TIME 11:07 am		TIME COLLECTED 11:07 am		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 11:07 am		G		G		(✓)	
START TIME 11:07 am		STOP TIME 11:12 am		TIME COLLECTED 11:12 am		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 11:12 am		G		G		(✓)	
START TIME 11:12 am		STOP TIME 11:17 am		TIME COLLECTED 11:17 am		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 11:17 am		G		G		(✓)	
START TIME 11:17 am		STOP TIME 11:22 am		TIME COLLECTED 11:22 am		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 11:22 am		G		G		(✓)	
START TIME 11:22 am		STOP TIME 11:27 am		TIME COLLECTED 11:27 am		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 11:27 am		G		G		(✓)	
START TIME 11:27 am		STOP TIME 11:32 am		TIME COLLECTED 11:32 am		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 11:32 am		G		G		(✓)	
START TIME 11:32 am		STOP TIME 11:37 am		TIME COLLECTED 11:37 am		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 11:37 am		G		G		(✓)	
START TIME 11:37 am		STOP TIME 11:42 am		TIME COLLECTED 11:42 am		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 11:42 am		G		G		(✓)	
START TIME 11:42 am		STOP TIME 11:47 am		TIME COLLECTED 11:47 am		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 11:47 am		G		G		(✓)	
START TIME 11:47 am		STOP TIME 11:52 am		TIME COLLECTED 11:52 am		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 11:52 am		G		G		(✓)	
START TIME 11:52 am		STOP TIME 11:57 am		TIME COLLECTED 11:57 am		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 11:57 am		G		G		(✓)	
START TIME 11:57 am		STOP TIME 12:02 pm		TIME COLLECTED 12:02 pm		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 12:02 pm		G		G		(✓)	
START TIME 12:02 pm		STOP TIME 12:07 pm		TIME COLLECTED 12:07 pm		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 12:07 pm		G		G		(✓)	
START TIME 12:07 pm		STOP TIME 12:12 pm		TIME COLLECTED 12:12 pm		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 12:12 pm		G		G		(✓)	
START TIME 12:12 pm		STOP TIME 12:17 pm		TIME COLLECTED 12:17 pm		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 12:17 pm		G		G		(✓)	
START TIME 12:17 pm		STOP TIME 12:22 pm		TIME COLLECTED 12:22 pm		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 12:22 pm		G		G		(✓)	
START TIME 12:22 pm		STOP TIME 12:27 pm		TIME COLLECTED 12:27 pm		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 12:27 pm		G		G		(✓)	
START TIME 12:27 pm		STOP TIME 12:32 pm		TIME COLLECTED 12:32 pm		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 12:32 pm		G		G		(✓)	
START TIME 12:32 pm		STOP TIME 12:37 pm		TIME COLLECTED 12:37 pm		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 12:37 pm		G		G		(✓)	
START TIME 12:37 pm		STOP TIME 12:42 pm		TIME COLLECTED 12:42 pm		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 12:42 pm		G		G		(✓)	
START TIME 12:42 pm		STOP TIME 12:47 pm		TIME COLLECTED 12:47 pm		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 12:47 pm		G		G		(✓)	
START TIME 12:47 pm		STOP TIME 12:52 pm		TIME COLLECTED 12:52 pm		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 12:52 pm		G		G		(✓)	
START TIME 12:52 pm		STOP TIME 12:57 pm		TIME COLLECTED 12:57 pm		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 12:57 pm		G		G		(✓)	
START TIME 12:57 pm		STOP TIME 1:02 pm		TIME COLLECTED 1:02 pm		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 1:02 pm		G		G		(✓)	
START TIME 1:02 pm		STOP TIME 1:07 pm		TIME COLLECTED 1:07 pm		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 1:07 pm		G		G		(✓)	
START TIME 1:07 pm		STOP TIME 1:12 pm		TIME COLLECTED 1:12 pm		G		G		(✓)	
DATE 7-26-21		DATE 7-26-21		TIME 1:12 pm		G		G		(✓)	
START TIME 1:12 pm		STOP TIME 1:17 pm		TIME COLLECTED 1:17 pm		G		G		(✓)       </	



2607 Commerce Blvd.  
 Birmingham, AL 35210  
 Phone: (205) 951-3400  
 www.emcbham.com

Municipal Consultants - Pelham  
 200 Century Park South  
 Suite 212  
 Birmingham, AL 35226

Lab Number: 20222207  
 Date Reported: 7/29/2022  
 Date Received: 7/26/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20222207-01</b>						
<b>Description: CVC Oak Mtn Ampitheater - Semi-Annual TMDL Sampling</b>						
<b>Sampled: 7/26/2022 10:31:00 AM</b>						
pH	SM 4500 H + B	7.66	SU		07/26/22 10:31	cli
Dissolved Oxygen	SM 4500 O G	7.32	mg/L		07/26/22 10:31	cli
Temperature		77.3	°F		07/26/22 10:31	cli
E. Coli	IDEXX Colilert 18	650	MPN/100ml	07/26/22 14:48	07/27/22 12:40	SB
Total Suspended Solids	SM 2540 D	2.00	mg/L		07/27/22 13:30	DW
Phosphorus, Total	HACH 8190	0.06	mg/L		07/29/22 10:40	SB

<b>Sample No: 20222207-02</b>						
<b>Description: CVC Police Firing Range - Semi-Annual TMDL Sampling</b>						
<b>Sampled: 7/26/2022 9:52:00 AM</b>						
pH	SM 4500 H + B	7.70	SU		07/26/22 9:52	cli
Dissolved Oxygen	SM 4500 O G	7.85	mg/L		07/26/22 9:52	cli
Temperature		76.0	°F		07/26/22 9:52	cli
E. Coli	IDEXX Colilert 18	200	MPN/100ml	07/26/22 14:48	07/27/22 12:40	SB
Total Suspended Solids	SM 2540 D	5.00	mg/L		07/27/22 13:30	DW
Phosphorus, Total	HACH 8190	0.06	mg/L		07/29/22 10:40	SB

HACH EPA Compliant Methods

IDEXX Quanti-Tray 2000 MPN Colilert 18

Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998.

cli Client

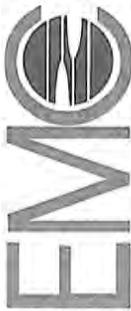
DW Daneen Wilson

SB Seyvon Brown

Approved By

Daneen Wilson

Lab Manager



2607 Commerce Boulevard  
 Birmingham, AL 35210  
 (205) 951-3400  
 (800) 239-2837  
 (205) 951-0808 FAX  
 www.emcbham.com

ENVIRO MANAGEMENT CORP.

CLIENT  
 City of Pelham/MCI

ADDRESS (STREET, CITY, ZIP)

200 Century Park S STE 212 Birmingham AL  
 ATTENTION

Andrew Golden

SAMPLERS: (Signature)

*Welsh Gamen*

P.O. # \_\_\_\_\_ PHONE # ( 205 ) 822-0387 FAX # ( 205 ) 822-0386  
 PROJECT NAME  
 TMDL Sampling - City of Pelham

TURN AROUND TIME  
 STANDARD  
 RUSH  
 PRIORITY ONE

DATE	TIME	STOP DATE	STOP TIME	COLLECTED TIME	C COMP	G GRAB	SPECIFIC LOCATION	MATRIX	# OF CONTAINERS	PRESERVATIVE	F. Coll	Total Suspended Solids	Total Phos (Tech Method)	REMARKS	SAMPLER	
																1P
7/26/22	10:26 am	7/26/22	10:31 am	10:31 am	G	G	Cahaba Valley Creek	H2O	1P	-		X		pH: 7.66 DO: 7.32 ~9/2 Temp: 77.3°F	(✓)	
					G	G	Oak Mtn. Ampitheater	H2O	1P	E	X					(✓)
					G	G		H2O	1P	A		X				(✓)
7/26/22	9:47 am	7/26/22	9:53 am	9:53 am	G	G	Cahaba Valley Creek	H2O	1P	-		X		pH: 7.70 DO: 7.85 mg/L Temp: 76.0°F	(✓)	
					G	G	Police Firing Range	H2O	1P	E	X					(✓)
					G	G		H2O	1P	A		X				(✓)

Relinquished by: (Signature) *Welsh Gamen* Date/Time: 7/26/22 12:15 pm  
 Received by: (Signature) \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Relinquished by: (Signature) \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Received for Laboratory by: (Signature) *Shelley Jones* Date/Time: 7/26/22 12:15 pm  
 Remarks: EColi Dilutions 50,10,1,0,0.1mL Include Count, Avg. Data with Results Total P - use method with lowest detection limit

2207

Chain of Custody Record







2607 Commerce Blvd,  
 Birmingham, AL 35210  
 Phone: (205) 951-3400  
 www.emcbham.com

Municipal Consultants - Pelham  
 200 Century Park South  
 Suite 212  
 Birmingham, AL 35226

Lab Number: 20222250  
 Date Reported: 8/1/2022  
 Date Received: 7/28/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20222250-01</b>						
<b>Description: CVC Oak Mtn Ampitheater - Semi-Annual TMDL Sampling</b>						
<b>Sampled: 7/28/2022 10:31:00 AM</b>						
pH	SM 4500 H + B	7.72	SU		07/28/22 10:31	cli
Dissolved Oxygen	SM 4500 O G	7.08	mg/L		07/28/22 10:31	cli
Temperature		79.4	°F		07/28/22 10:31	cli
E. Coli	IDEXX Colilert 18	1150	MPN/100ml	07/28/22 15:39	07/29/22 13:19	SB
Total Suspended Solids	SM 2540 D	4.00	mg/L		07/29/22 11:26	DW
Phosphorus, Total	HACH 8190	0.08	mg/L		07/29/22 10:40	SB

<b>Sample No: 20222250-02</b>						
<b>Description: CVC Police Firing Range - Semi-Annual TMDL Sampling</b>						
<b>Sampled: 7/28/2022 9:57:00 AM</b>						
pH	SM 4500 H + B	7.70	SU		07/28/22 9:57	cli
Dissolved Oxygen	SM 4500 O G	7.65	mg/L		07/28/22 9:57	cli
Temperature		77.1	°F		07/28/22 9:57	cli
E. Coli	IDEXX Colilert 18	100	MPN/100ml	07/28/22 15:39	07/29/22 13:19	SB
Total Suspended Solids	SM 2540 D	4.00	mg/L		07/29/22 11:26	DW
Phosphorus, Total	HACH 8190	0.06	mg/L		07/29/22 10:40	SB

HACH EPA Compliant Methods

IDEXX Quanti-Tray 2000 MPN Colilert 18

Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998.

cli Client

DW Daneen Wilson

SB Seyvon Brown

Approved By

Daneen Wilson

Lab Manager

2250

Chain of Custody Record

2607 Commerce Boulevard  
 Birmingham, AL 35210  
 (205) 951-3400  
 (800) 239-2837  
 (205) 951-0808 FAX  
 www.emcbham.com



ENVIRO MANAGEMENT CORP.

CLIENT City of Pelham/MCI		P.O. #	PHONE # ( 205 ) 822-0387	FAX # ( 205 ) 822-0386	TURN AROUND TIME
ADDRESS (STREET, CITY, ZIP) 200 Century Park S STE 212 Birmingham AL		PROJECT NAME TMDL Sampling - City of Pelham			STANDARD <input type="checkbox"/> RUSH <input type="checkbox"/> PRIORITY ONE
ATTENTION Andrew Golden		MATRIX	# OF CONTAINERS	# PRESERVATIVE	REMARKS  S A M P L E S (✓)
SAMPLERS: (Signature) <i>Wells Garner</i>		SPECIFIC LOCATION			
START DATE	STOP DATE	TIME COLLECTED	G=COMP	G=GRAB	
7/28/21 9:26 am	7/28/21 10:31 am	10:31 am	G	G	
			G	G	
			G	G	
7/28/21 9:52 am	7/28/21 9:57 am	9:57 am	G	G	
			G	G	
			G	G	
			G	G	
Relinquished by: (Signature) <i>Wells Garner</i>		Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)
Relinquished by: (Signature)		Date/Time	Received for Laboratory by: (Signature) <i>Haley Jones</i>	Date/Time	Received by: (Signature)
				7/28/21 12:10 pm	
Remarks EColi Dilutions 50,10,1.0,0.1mL Include Count, Avg. Data with Results Total P - use method with lowest detection limit					

\* A=H<sub>2</sub>SO<sub>4</sub>, B=HCL, C=HNO<sub>3</sub>, D=NaOH, E=Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>

**APPENDIX C**

Illicit Discharge Detection  
and Elimination  
Supporting Documentation

The following information includes (1) a Summary Table of Dry Weather Screening activity over the past permit year, (2) a Dry Weather Screening Data Sheet that is representative of the data that was recorded for a typical outfall, and (3) Supporting Documentation for 2 Illicit Discharge Investigations and their results.

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OUTFALL	DATE INSPECTED	X/Y COORDINATE (UTM)	SITE DESCRIPTION AND/OR PIPE SIZE	LAND USE	FLOW RATE (cfs)	ODOR	COLOR	CLARITY	FLOAT	DEPOS	VEG. PROBLEM	STRUC. PROBLEM	BIO.	TEMP (F)	SAMPLE
S10-352	9/29/2022	522762 / 3688099	36" CMP	O	None	N/A	N/A	N/A	N/A	N/A	Normal	N/A	N/A	N/A	No
S13-085	9/27/2022	5173807 / 3684549	Open Ditch	R	None	N/A	N/A	N/A	N/A	N/A	Excessive Growth	N/A	N/A	N/A	No
S13-087	9/27/2022	517452 / 3684554	Open Ditch	R	None	N/A	N/A	N/A	N/A	N/A	Excessive Growth	N/A	N/A	N/A	No
S13-088	9/27/2022	5173967 / 3684510	Open Ditch	R	None	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No
S13-092	9/27/2022	518901 / 3684104	24" RCP	I	None	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No
S13-093	9/29/2022	518840 / 3683943	24" RCP	I	None	N/A	N/A	N/A	N/A	N/A	Excessive Growth	N/A	N/A	N/A	No
S13-094	9/27/2022	518768 / 3683754	36" RCP	I	None	N/A	N/A	N/A	N/A	N/A	Excessive Growth	N/A	N/A	N/A	No
S13-116	9/27/2022	517562 / 3682380	Open Ditch	C	None	N/A	N/A	N/A	N/A	N/A	Excessive Growth	N/A	N/A	N/A	No
S13-117	9/27/2022	5176397 / 3682358	Open Ditch	C	None	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No
S13-118	9/27/2022	517864 / 3682495	Open Ditch	C	None	N/A	N/A	N/A	N/A	N/A	Normal	N/A	N/A	N/A	No
S13-119	9/27/2022	517985 / 3682484	Open Ditch	C	None	N/A	N/A	N/A	N/A	N/A	Excessive Growth	N/A	N/A	N/A	No
S13-120	9/28/2022	518895 / 3682001	Open Ditch	C / R	None	N/A	N/A	N/A	N/A	N/A	Inhibited Growth	N/A	N/A	N/A	No
S13-121	9/28/2022	518954 / 3681979	Open Ditch	C	None	N/A	N/A	N/A	N/A	N/A	Normal	N/A	N/A	N/A	No
S13-122	9/28/2022	518687 / 3681880	Open Ditch	U	None	N/A	N/A	N/A	N/A	N/A	Normal	N/A	N/A	N/A	No
S13-123	9/28/2022	518764 / 3681864	Open Ditch	U	None	N/A	N/A	N/A	N/A	N/A	Excessive Growth	N/A	N/A	N/A	No
S13-124	9/28/2022	518387 / 3681809	Open Ditch	I	None	N/A	N/A	N/A	N/A	N/A	Normal	N/A	N/A	N/A	No
S13-125	9/28/2022	518764 / 3681798	Open Ditch	I	None	N/A	N/A	N/A	N/A	N/A	Normal	N/A	N/A	N/A	No
S13-126	9/28/2022	517578 / 3681068	Open Ditch	C	None	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No
S13-127	9/28/2022	518573 / 3681233	Open Ditch	I	None	N/A	N/A	N/A	N/A	N/A	Excessive Growth	N/A	N/A	N/A	No
S13-128	9/28/2022	518824 / 3681255	Open Ditch	I	None	N/A	N/A	N/A	N/A	N/A	Normal	N/A	N/A	N/A	No
S13-129	9/28/2022	518764 / 3681178	Open Ditch	I	None	N/A	N/A	N/A	N/A	N/A	Normal	N/A	N/A	N/A	No
S13-130	9/28/2022	518819 / 3681162	Open Ditch	I	None	N/A	N/A	N/A	N/A	N/A	Normal	N/A	N/A	N/A	No
S13-320	9/29/2022	517730 / 3683598	Open Ditch	C	None	N/A	N/A	N/A	N/A	N/A	Normal	N/A	N/A	N/A	No
S13-321	9/29/2022	517624 / 3683160	Open Ditch	C	N/A	None	Brown	Cloudy	N/A	Sediments	Normal	Normal	N/A	N/A	No
S13-332	9/30/2022	517389 / 3680668	Open Ditch	R	None	N/A	N/A	N/A	N/A	N/A	Excessive Growth	N/A	N/A	N/A	No
S14-035	9/29/2022	522048 / 3683060	Open Ditch, inferred	R	None	N/A	N/A	N/A	N/A	N/A	Erosion	N/A	N/A	N/A	No
S14-047	9/28/2022	519235 / 3681753	Open Ditch	R	None	N/A	N/A	N/A	N/A	N/A	Inhibited Growth	N/A	N/A	N/A	No
S14-048	9/28/2022	519296 / 3681723	Manhole	R	None	N/A	N/A	N/A	N/A	N/A	Normal	N/A	N/A	N/A	No
S14-049	9/28/2022	519672 / 3681713	Open Ditch	C	None	N/A	N/A	N/A	N/A	N/A	Normal	N/A	N/A	N/A	No
S14-078	9/29/2022	520787 / 3682019	Open Ditch	R	None	N/A	N/A	N/A	N/A	N/A	Normal	N/A	N/A	N/A	No
S14-080	9/29/2022	520794 / 3682007	Open Ditch	R	None	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No

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**City of Pelham Storm Water Management Program**  
Dry-Weather Screening Data Sheet

Outfall number: 513-128  
Inspection Team: JW

Date: 9/28/22  
Time: 11:00 AM / PM

Site Description:  open channel  manhole  outfall  other \_\_\_\_\_

Dominant Watershed Land Uses:  industrial  commercial  residential  unknown  
 other \_\_\_\_\_

Location: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Flow Present:  No  Yes 1. width of water surface (ft): \_\_\_\_\_  
2. approximate depth of water (ft): \_\_\_\_\_  
3. approximate flow velocity (fps): \_\_\_\_\_  
flow rate (cfs) = 1x2x3 = \_\_\_\_\_

Visual Observations:

Odor:  none  musty  sewage  rotten eggs  sour milk  other \_\_\_\_\_  
Color:  clear  red  yellow  brown  green  gray  other \_\_\_\_\_  
Clarity:  clear  cloudy  opaque  suspended solids  other \_\_\_\_\_  
Floatables:  none  oily sheen  garbage/sewer  other \_\_\_\_\_  
Deposits/Stains:  none  sediments  oily  other \_\_\_\_\_  
Vegetation Condition:  none  normal  excessive growth  inhibited growth  other \_\_\_\_\_  
Structural Condition:  normal  concrete cracking/spalling  metal corrosion  other \_\_\_\_\_  
Biological:  mosquito larvae  bacteria/algae  other \_\_\_\_\_

Field Analysis:

water temperature (°F): \_\_\_\_\_

pH \_\_\_\_\_ Method of Analysis: \_\_\_\_\_ (Strips/Meter)

Laboratory Sample Collected:  yes  no

Lab Analysis:

E. Coli (colonies/100ml): \_\_\_\_\_  
Oil & Grease (mg/l): \_\_\_\_\_

Potassium (mg/l): \_\_\_\_\_  
MBAS (mg/l): \_\_\_\_\_

NH<sub>3</sub>N (mg/l): \_\_\_\_\_  
pH \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_

Data Sheet Filled Out By (signature):

  
\_\_\_\_\_

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# Illicit Discharge Sampling Location #1



## Andrew Golden

---

**From:** André Bittas <abittas@pelhamalabama.gov>  
**Sent:** Tuesday, March 22, 2022 4:22 PM  
**To:** Andrew Golden  
**Cc:** Chris Cousins; Mickey Dunnaway  
**Subject:** Re: 1968 Chandalar Office Park Circle (Daycare)

Great. Thank you

On Mar 22, 2022, at 4:20 PM, Andrew Golden <AGolden@municipalconsultants.org> wrote:

Andre' and Chris:

Attached are the results from the resampling performed on 3-3-22. All parameters were below the triggers listed in the City's Stormwater Management Plan. I have also included the results from the original sampling (that was performed in response to the complaint/concern of potential petroleum contamination in the standing water). If you need anything else on this please let me know.

Thanks,

Andrew Golden  
**Municipal Consultants, Inc.**  
agolden@municipalconsultants.org  
P: 205-822-0387  
F: 205-822-0386  
C: 205-903-3527

<Sampling Results 3-3-22.pdf>  
<Sampling Results 2-15-22.pdf>



2607 Commerce Blvd.  
 Birmingham, AL 35210  
 Phone: (205) 951-3400  
 www.emcbham.com

Municipal Consultants - Pelham  
 200 Century Park South  
 Suite 212  
 Birmingham, AL 35226

Lab Number: 20220487  
 Date Reported: 2/24/2022  
 Date Received: 2/15/2022

### Certificate of Analysis

Test	Method	Result	Units	Begin Date/Time	End Date/Time	Analyst
<b>Sample No: 20220487-01</b>		<b>Description: 1968 Chandalar Park Cir. Daycare - Dry Weather Screening</b>				
<b>Sampled: 2/15/2022 11:43:00 AM</b>						
pH	4500 H + B	6.85	SU		02/15/22 11:43	cli
Dissolved Oxygen	SM 4500 O G	5.17	mg/L		02/15/22 11:43	cli
Water Temperature		54.7	°F		02/15/22 11:43	cli
E. Coli	IDEXX Colilert 18	BDL (<50)	MPN/100ml	02/15/22 18:05	02/16/22 15:35	SB
MBAS	SM 5540 C	0.23	mg/L		02/16/22 13:05	SB
Potassium	EPA 200.7	0.50	mg/L		02/21/22 13:57	SB
Nitrogen, Ammonia	SM 4500 NH3 B+C	0.56	mg/L		02/16/22 15:27	JER
Oil and Grease	EPA 1664 B	5.19	mg/L		02/17/22 14:15	JER

BDL = Below Detection Limit

EPA "Method for Chemical Analyses of Water and Waste" 600/4-79-020, Revised March 1983

IDEXX Quanti-Tray 2000 MPN Colilert 18

Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998.

cli Client

JER Joanna Rowlen

SB Seyvon Brown

Approved By

Daneen Wilson

Lab Manager



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# Illicit Discharge Sampling Location #2



## Andrew Golden

---

**From:** Andrew Golden  
**Sent:** Thursday, October 06, 2022 4:27 PM  
**To:** Andrè Bittas  
**Cc:** Chris Cousins  
**Subject:** RE: River/Creek pollution  
**Attachments:** 20222632 20220918-1658-29.pdf

Andre':

To follow up on this original concern, we have performed in-stream sampling at this location (near the City dog park). The sampling performed follows the City's Stormwater Program in terms of protocol for detecting illicit discharges to creeks and drainage ways/conveyances. At the time of sampling, some "foam" was noted. A week or so after sampling (and while waiting on the lab results), we went back to this same location and followed the creek upstream at several access points to see if we could determine a "starting point" of the foam. However, it was not noticeable at any of the other locations (upstream of the sampling point). The attached sampling results indicate a very low detergent (MBAS) level. The trigger for concern and/or follow-up per the City's Stormwater Management Plan is 0.20 mg/L and the result was 0.07 mg/L. Based on this result as well as visual observations, we do not suspect any illicit discharges at this time. It is worth noting that it is not uncommon for minor amounts of foam to be visible at the discharge point of the City's wastewater treatment plant, which is located on an entirely different stream. Similar to the foam noticed at the location of concern, this foam is believed to be naturally occurring and is often more obvious in areas of turbulence (such as at the treatment plant's discharge point into the stream). We know through routine, required sampling that the water quality leaving the plant is better than that of the in-stream water quality of the creek due to the treatment plant's stringent effluent limits. However, we will bear these observations and concerns in mind as we continue to perform the routine tasks associated with the City's Stormwater Management Program. Should you need any additional information please don't hesitate to let me know.

Thank you,

Andrew Golden  
**Municipal Consultants, Inc.**  
agolden@municipalconsultants.org  
P: 205-822-0387  
F: 205-822-0386  
C: 205-903-3527

---

**From:** Andrè Bittas  
**Sent:** Wednesday, September 07, 2022 1:26 PM  
**To:** Andrew Golden <agolden@municipalconsultants.org>  
**Cc:** Chris Cousins <ccousins@municipalconsultants.org>  
**Subject:** Re: River/Creek pollution

Thanks

On Sep 7, 2022, at 1:15 PM, Andrew Golden <[AGolden@municipalconsultants.org](mailto:AGolden@municipalconsultants.org)> wrote:

Yes. We pulled a sample last week and expect the results back within the next week to 10 days.

We will also look again today to see what it looks like. Based on what we observed at the time of sampling, we didn't suspect anything unusual.

Thanks,

Andrew Golden

**Municipal Consultants, Inc.**

[agolden@municipalconsultants.org](mailto:agolden@municipalconsultants.org)

P: 205-822-0387

F: 205-822-0386

C: 205-903-3527

---

**From:** Andrè Bittas

**Sent:** Wednesday, September 07, 2022 10:54 AM

**To:** Chris Cousins <[ccousins@municipalconsultants.org](mailto:ccousins@municipalconsultants.org)>; Andrew Golden <[agolden@municipalconsultants.org](mailto:agolden@municipalconsultants.org)>

**Subject:** Fwd: River/Creek pollution

Have you looked at this?

Begin forwarded message:

**From:** David <[davidladewig@charter.net](mailto:davidladewig@charter.net)>

**Date:** September 7, 2022 at 10:22:39 AM CDT

**To:** Andrè Bittas <[abittas@pelhamalabama.gov](mailto:abittas@pelhamalabama.gov)>

**Subject:** River/Creek pollution

Good morning Andre,

After the large rain last week a lot of the soap/pollution washed out. However after the rain 2 days ago, it has come back but is almost double the amount when we met last week. I wondered if taking a sample and having adem or an expert at city hall try to figure out what the soapy stuff is would help. You'll know more about that than I would.

I hope you had a good labor day and have a great week ahead

David Ladewig

205-447-1161

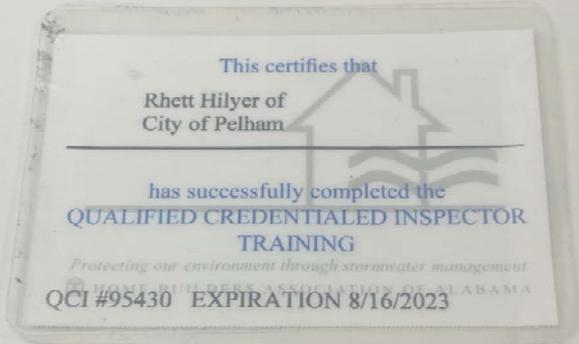
Sent from [Mail](#) for Windows



**APPENDIX D**

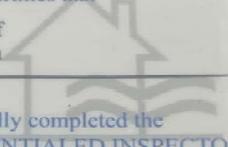
Construction Site Storm Water Runoff  
Supporting Documentation

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This certifies that

Rhett Hilyer of  
City of Pelham



has successfully completed the  
**QUALIFIED CREDENTIALLED INSPECTOR  
TRAINING**

*Protecting our environment through stormwater management*

ALABAMA HOME BUILDERS ASSOCIATION OF ALABAMA

**QCI #95430 EXPIRATION 8/16/2023**

This certifies that

Mitchell Morgan of  
City of Pelham

---

has successfully completed the  
**QUALIFIED CREDENTIALLED INSPECTOR  
TRAINING**

*Protecting our environment through stormwater management*

HOME BUILDERS ASSOCIATION OF ALABAMA

QCI #70720 · EXPIRATION 08/16/2023



# QCI Training Program

# Certificate of Completion



*is hereby granted to:*

*Wells Garner*

*Municipal Consultants, Inc.*

*for satisfactory completion of*

*Online Initial  
Training*

**QCI No. T7225**

**Expires 2/9/2023**

This certificate confers six (6.0) professional development hours (PDHs) to students who require credits for licenses or certifications. Such PDHs are subject to the qualifying requirements of the licensing or certifying organization.

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**City of Pelham  
Active Construction Sites**

Revised 1-27-2023

<b>Development</b>	<b>Drainage Basin</b>	<b>Disturbed Area (acres)</b>	<b>NPDES Permit</b>	<b>Plan Approval Date</b>	<b>Status</b>
Camellia Ridge Phase III	Cahaba	14.20	ALR10BB87	10/8/2020	Active
Campus 124	Cahaba	4.80	ALR10C2GS	12/1/2021	Active
Circle K (2101 Valleydale Road)	Cahaba	1.30	ALR10C341	11/17/2022	Active
Civic Center Parking Lot Addition	Cahaba	7.60	ALR10C1HQ	10/8/2021	Complete - Pending Final Stab.
Five Star Lumber	Cahaba	0.90	N/A	7/13/2022	Active
Grey Oaks sector 8 and 10	Cahaba	7.30	ALR10C233	10/13/2022	Active
Grey Oaks Sectors 5-7	Cahaba	37.90	ALR10BEN7	2/14/2019	Active
Huntley Park Townhomes	Cahaba	4.60	ALR10C1JN	11/11/2021	Active
Kinross Highlands at Ballantrae, Phase II	Coosa	11.70	ALR10B884	9/10/2020	Active
MAPCO (3000 Pelham Parkway)	Cahaba	1.60	ALR10C0V4	6/1/2021	Active
Mitoba Trail (Panther's Path Subdivision)	Cahaba	4.04	ALR10BHN6	2/27/2020	Active
Monroe - Huntley Parkway	Cahaba	9.70	ALR10BDJW	8/4/2021	Active
Simms Landing Phases 2 & 3	Cahaba	20.40	ALR10BDDN	10/13/2022	Active
The Canopy	Cahaba	24.50	ALR10BFED	2/18/2022	Active
Tractor Supply	Cahaba	4.10	ALR10C1XJ	8/12/2022	Complete - Pending Final Stab.

Note: This list does not include individual home construction or interior-only related permitting. Additional information is available upon request.

**Storm Water Management Program Plan  
(SWMPP)**

# **STORM WATER MANAGEMENT PROGRAM PLAN**



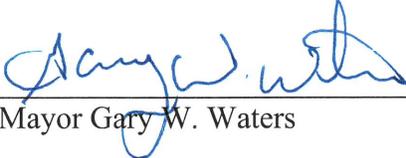
## **CITY OF PELHAM MUNICIPAL SEPARATE STORM SEWER SYSTEM**

Prepared by: Municipal Consultants, Inc.  
Date Modified: January 12, 2023



CERTIFICATION STATEMENT  
FOR THE  
CITY OF PELHAM MS4 PERMIT  
NPDES PERMIT NO. ALS000009  
STORM WATER MANAGEMENT PROGRAM PLAN

I certify under 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.

  
\_\_\_\_\_  
Mayor Gary W. Waters

  
\_\_\_\_\_  
Date

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## Appendices

Appendix 1:	City of Pelham Storm Water Management Ordinance
Appendix 2:	City of Pelham Subdivision Regulations
Appendix 3:	Major Outfall List
Appendix 4:	Inspection & Field Data Sheets
Appendix 5:	SOPs and Standard Documents for Program Components
Appendix 6:	Industrial & Commercial Facility and Post-Construction Inventory
Appendix 7:	Shelby County MS4 Storm Water Management Permit
Appendix 8:	City of Pelham Cleanliness of Premises Ordinance

**STORM WATER MANAGEMENT PROGRAM PLAN**  
**City of Pelham MS4**

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**I. General Information**

**A. Objective of Program:**

The City of Pelham was issued NPDES Permit No. ALS000009 (herein after referred to as the Permit) by the Alabama Department of Environmental Management (hereinafter referred to as ADEM) with an effective date of December 1, 2015. The purpose of this Storm Water Management Program Plan (SWMPP) is to prohibit the discharge of non-storm water into the municipal separate storm sewer system (MS4) and to reduce the discharge of pollutants from the MS4 to the maximum extent practicable. This Storm Water Management Program Plan has been developed in compliance with the requirements of the Permit.

**B. Program Participants:**

A contact list for the program participants is provided in Table 1.

**C. Roles and Responsibilities of Program Participants:**

Roles and responsibilities of the program participants are specified within each program element detailed in this SWMPP.

**D. Area of Coverage**

This SWMPP shall apply to the corporate boundaries of the City of Pelham within the Cahaba River drainage basin, with the exception of the Oak Mountain State Park. In December of 2014, ADEM notified Oak Mountain State Park that the Park does not qualify as needing NPDES coverage. Therefore, the Park is not included in the City's area of coverage. Figure 1 provides an overview of the City's MS4.

**E. Legal Authority:**

Act No. 95-775, Legislature of Alabama - 11-89C-1 - 14, Code of Alabama 1975, and other provisions thereof, grants the legal authority to set up a local storm water management program, with the associated ordinance and fees, to "the governing bodies of all Class 1 municipalities within the state and the county governing bodies in which the Class 1 municipalities are located and the governing bodies of all municipalities located within those counties, and where any such municipality is also located partially within an adjoining county, then the governing body of such adjoining county." Among other privileges, the Legislature granted the legal authority to: (1) control discharges and prohibit discharges to and from those portions of the MS4 over which it has jurisdiction, (2) control spills that may pose a threat to the MS4, (3) have interagency agreements, (4) require compliance with applicable local, state, and federal laws, and (5) perform inspections on private property to investigate sources of illicit discharges to the MS4. This legal authority was utilized by the City to adopt a local ordinance addressing these issues originally in 1995. Since that time, updates to the stormwater ordinance (in Appendix 1) are needed and the City has begun this process.

**F. Program Review and Modification:**

The SWMPP may be updated and modified as necessary to comply with the

**STORM WATER MANAGEMENT PROGRAM PLAN**  
**City of Pelham MS4**

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requirements set forth in the Permit.

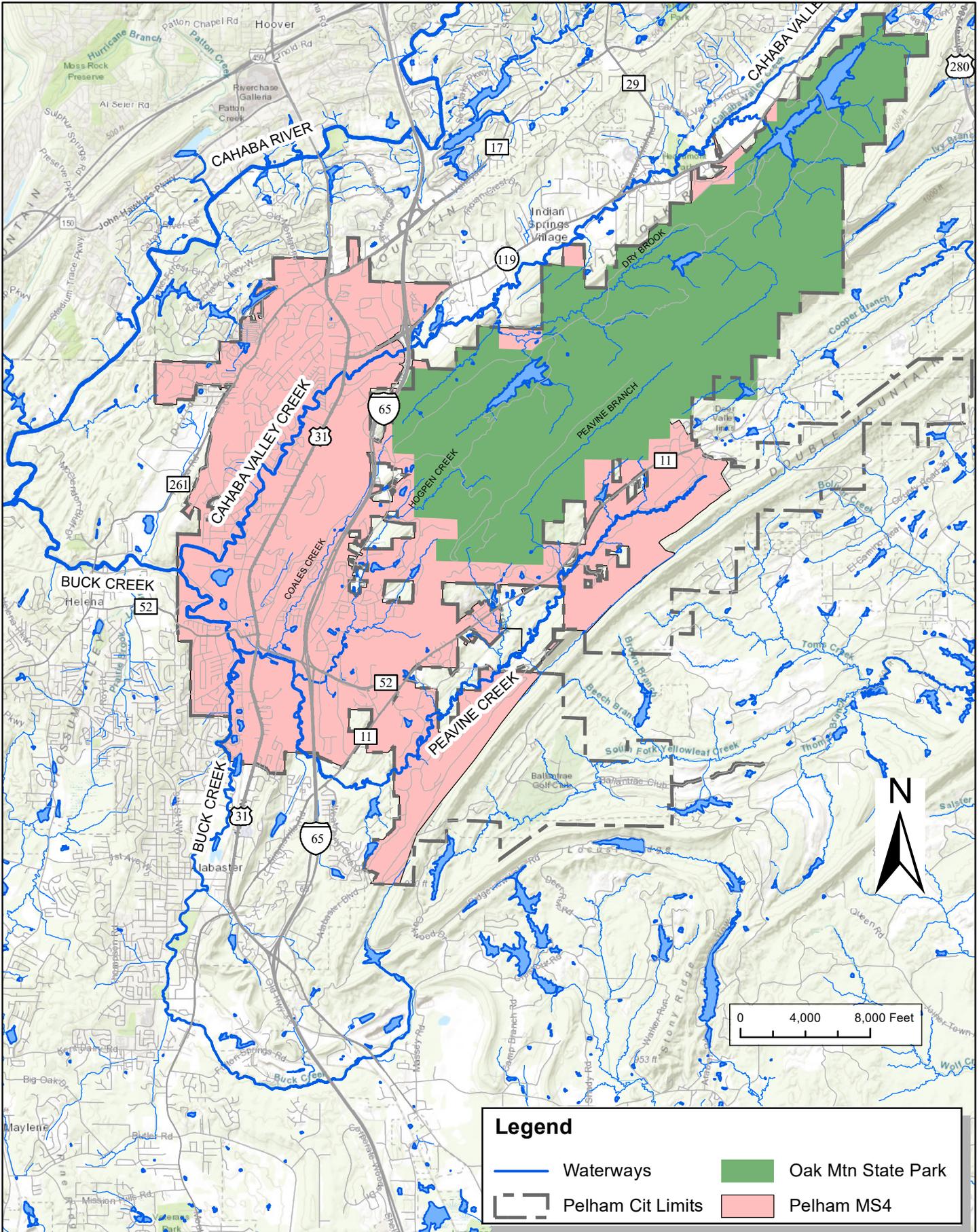
**STORM WATER MANAGEMENT PROGRAM PLAN**  
**City of Pelham MS4**

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**TABLE 1**

<b>Agency</b>	<b>Contact</b>	<b>Address &amp; Telephone</b>
City of Pelham	Gretchen DiFante City Manager	P.O. Box 1419 Pelham, AL 35124 (205) 620-6520 <a href="mailto:gdifante@pelhamalabama.gov">gdifante@pelhamalabama.gov</a>
	Chris Cousins Interim City Engineer	P.O. Box 1419 Pelham, AL 35124 (205) 620-6408 <a href="mailto:cityengineer@pelhamalabama.gov">cityengineer@pelhamalabama.gov</a>
	Andre' Bittas Director of Development Services and Public Works	P.O. Box 1479 Pelham, AL 35124 (205) 620-6413 <a href="mailto:abittas@pelhamalabama.gov">abittas@pelhamalabama.gov</a>
	Levis Peters Building Official	P.O. Box 1238 Pelham, AL 35124 (205) 620-6409 <a href="mailto:lpeters@pelhamalabama.gov">lpeters@pelhamalabama.gov</a>
	Daniel Hamlin Sewer Dept. Supervisor	P.O. Box 1479 Pelham, AL 35124 (205) 620-6424 <a href="mailto:dhamlin@pelhamalabama.gov">dhamlin@pelhamalabama.gov</a>
	Mickey Dunnaway Street Dept. Supervisor	P.O. Box 1479 Pelham, AL 35124 (205) 620-6416 <a href="mailto:mdunnaway@pelhamalabama.gov">mdunnaway@pelhamalabama.gov</a>
	Brian Cooper Director of Parks and Recreation	P.O. Box 1419 Pelham, Alabama 35124 (205) 620-6417 <a href="mailto:bcooper@pelhamalabama.gov">bcooper@pelhamalabama.gov</a>
	Chief Mike Reid Fire Department	P.O. Box 1419 Pelham, AL 35124 (205) 620-6500 <a href="mailto:mreid@pelhamalabama.gov">mreid@pelhamalabama.gov</a>
Municipal Consultants, Inc.	Andrew Golden and Byron Woods	200 Century Park South, Suite 212 Birmingham, AL 35226 (205) 822-0387 <a href="mailto:agolden@municipalconsultants.org">agolden@municipalconsultants.org</a> <a href="mailto:bwoods@municipalconsultants.org">bwoods@municipalconsultants.org</a>

**Figure 1: Overall MS4 Boundary**



**STORM WATER MANAGEMENT PROGRAM PLAN**  
**City of Pelham MS4**

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**II. Program Components**

All program components shall inherently include all requirements of the Permit as required.

**A. Structural Controls**

All storm water structural controls owned and/or operated by the City within the MS4 shall be inspected and maintained by the City in such a way as to reduce pollutants to the maximum extent practicable.

Multiple other structural controls, primarily retention and detention ponds, exist in the project area, but all are owned, operated, or maintained by private land owners or neighborhood associations (see Post-Development Construction portion of this document for requirements associated with proposed privately owned structural controls associated with developments and/or re-developments). The proposed construction of any new structural controls in the MS4 owned by the City shall be added to the SWMPP as necessary.

**Inventory**

The following City owned structural controls currently exist within the City's MS4:

1. City Hall Retention Pond
2. Dodd Branch Detention Pond #1 (formerly Chadwick Pond)
3. Dodd Branch Detention Pond #2
4. Dodd Branch Detention Pond #3
5. Dodd Branch Detention Pond #4

In addition to the controls mentioned above, the City assists in the inspection of the following Pelham Board of Education owned structural controls:

1. Pelham Ridge Elementary Detention Pond
2. Pelham High School Detention Pond
3. Pelham High School Fieldhouse Detention Pond #1
4. Pelham High School Fieldhouse Detention Pond #2

**Mapping**

The City shall maintain a map of all City owned structural controls within the MS4. This map is included as Figure 2 of this SWMPP. The structural controls map shall be updated annually.

**Standard Operating Procedures**

The City shall utilize an inspection sheet, provided within Appendix 4, when performing an inspection of each structural control listed in the inventory above. Required maintenance and/or deficiencies noted shall be reported to the Public Works Department supervisor for action. Eroded areas shall be stabilized and re-vegetated as needed and all floatables, litter, sediment, and debris found shall be removed as needed. All maintenance performed shall be documented and retained for record

**STORM WATER MANAGEMENT PROGRAM PLAN**  
**City of Pelham MS4**

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purposes.

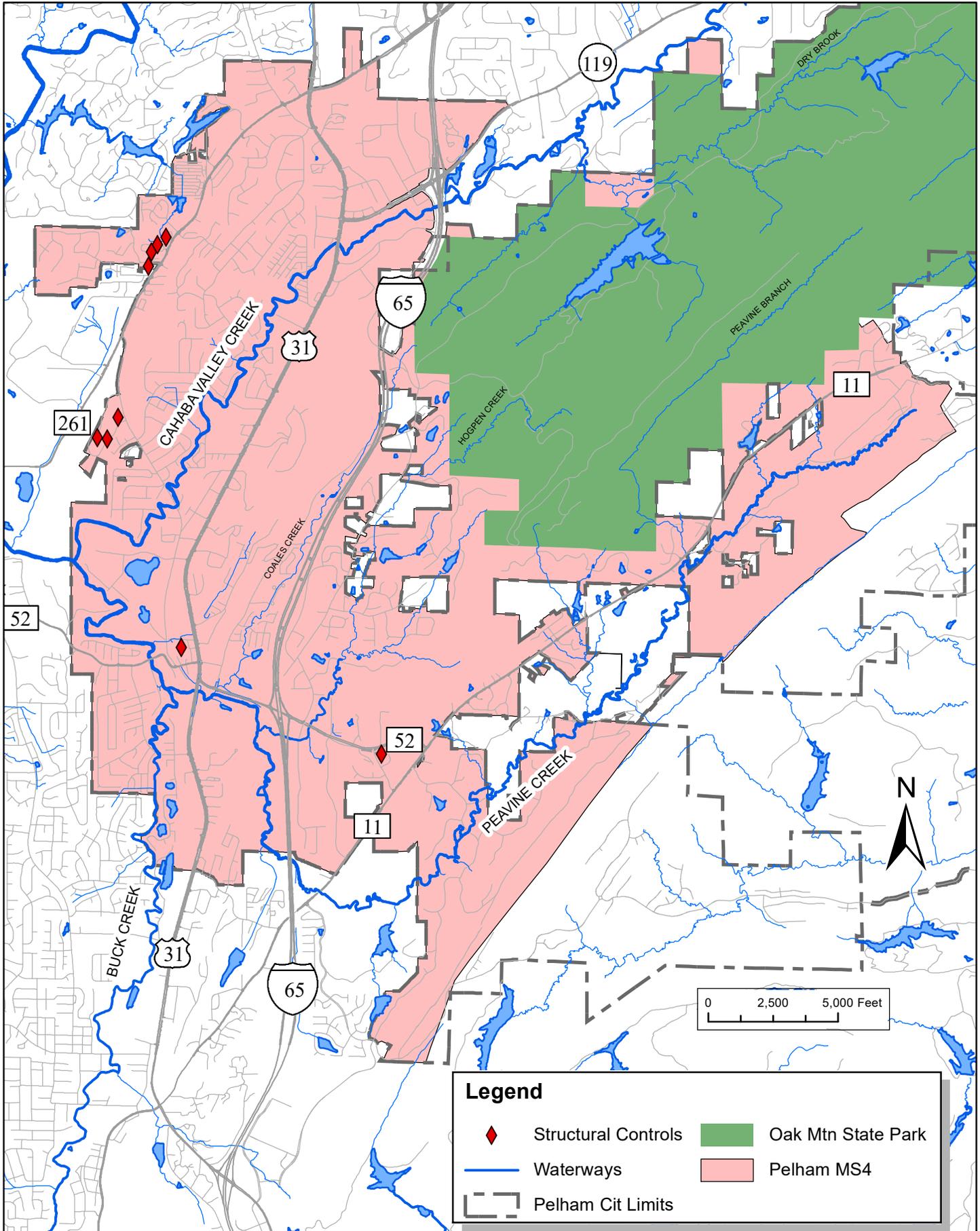
**Responsible Departments**

Inspections, Mapping, & Coordination: City Engineer & Municipal Consultants, Inc.  
Maintenance & Repairs: Public Works Department

**Measurable Goals**

<b>Goal</b>	<b>Schedule</b>	<b>Implementation</b>
Update Map	As needed	December 1, 2015
Structural Control Inspection	Semi-Annually	December 1, 2015
Maintenance & Repair	As needed	December 1, 2015
Program Evaluation	As needed & At a minimum annually	December 1, 2015

**Figure 2: Structural Controls**



**STORM WATER MANAGEMENT PROGRAM PLAN**  
**City of Pelham MS4**

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**B. Public Education and Involvement**

The City shall develop and continually implement a public education and involvement program to inform the community about the impacts of storm water discharges on water bodies. The intent of this program is that, by educating the general public and other specific groups on the impacts of storm water discharges, pollutants entering the MS4 will be minimized or eliminated and stream impairments will be mitigated. The City plans to accomplish this program through the following elements described below.

**Public Education**

The public education portion of this program shall target the following pollutant sources and audiences:

**Pollutant Sources**

1. Illicit Discharges
2. Erosion and Sedimentation from Construction Sites
3. Pet Waste
4. Application and Storage of Pesticides, Herbicides, and Fertilizers
5. Disposal of oils, toxics, and household hazardous wastes
6. Litter, Floatables, and Debris

**Audiences Targeted**

1. General Public
2. Engineers, Developers, and Contractors
3. Businesses
4. Homeowners, Landscapers, and Property Managers
5. Elected Officials

The following elements of the public education program shall be used in targeting the pollutant sources and audiences listed above.

**Education Materials**

The City has developed the following educational pamphlets/brochures which are posted on the City's website and also available at the City Library, Building Department, Water Department, and City Hall:

**STORM WATER MANAGEMENT PROGRAM PLAN**  
**City of Pelham MS4**

<b>Pamphlet</b>	<b>Targeted Audience</b>	<b>Targeted Pollutant Source</b>
Construction BMPs	Contractors, Developers, and Engineers	Erosion and Sedimentation
After the Storm	General Public	Illicit Discharges, Pet Waste, PHFs, Household Hazardous Waste, and Litter
Household Hazardous Materials	Homeowners, Businesses, General Public	Household Hazardous Wastes
Lawn Fertilizer	Homeowners, Landscapers, and Property Managers, General Public	Application and Storage of PHFs
Automobile Information	Homeowners, Businesses, General Public	Household Hazardous Wastes
Pet Information	Homeowners, General Public	Pet Waste
Household Septic Systems	Homeowners	Illicit Discharges

The City shall attempt to distribute educational pamphlets through water bill mail-outs or other targeted mailings with a goal of specifically addressing at least one target audience and/or pollutant source per year.

**Public Education Events, Seminars, and Workshops**

The City shall participate and promote public education events, seminars, and workshops addressing storm water into this program. These events may include but not be limited to:

1. Training Workshops and/or events addressing, but not limited to, general storm water runoff impacts, PHFs, Pet Waste, Illicit Discharges, and incorporating LID/green infrastructure design in new and redevelopments
2. Annual QCI/QCP Construction Stormwater BMP Course
3. Annual participation in community events hosted by the City including Pelham Palooza and Fire on the Water (4<sup>th</sup> of July event), which will include an emphasis on stormwater quality.

All training and public education events shall be tracked and the following items documented: number of attendees, date of event, and course content. The City will utilize social media outlets available to the City and the City’s website when notifying the public of these public events and workshops. The City may choose to combine resources for training and public education events with surrounding municipalities. The City shall implement a minimum of 2 public education BMPs annually.

## **STORM WATER MANAGEMENT PROGRAM PLAN**

### **City of Pelham MS4**

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#### **Public Involvement**

The City shall implement a minimum of 2 BMPs emphasizing public involvement. The public involvement portion of this program may consist (but not be limited to) the following:

#### **Public Input for SWMPP**

The City shall seek and take into consideration input from the general public in the development and implementation of the initial SWMPP by providing an opportunity for the public to offer comments to be considered by the City for incorporation into the SWMPP through a public hearing. This public hearing was held on July 11, 2016 at City Hall with substantial participation and input from citizens of Pelham. The City will continue to involve the general public as necessary moving forward.

#### **Storm Drain Labeling**

The City shall implement a program to label storm drain inlets and catch basins with “No Dumping, Drains to Waterways” markers. This program shall utilize Street Department personnel as well as encourage public groups and organizations to participate in the program. The City will accommodate workers from these groups at the Building Department office.

#### **No Littering/Dumping Signage**

The Public Works Department shall post signage at designated areas which reference local codes that prohibit littering and illegal dumping. The City has installed 2 pet waste stations at the City’s recently opened Dog Park. The City’s Parks and Rec. Department maintains these pet waste removal stations.

#### **Clean Up Events**

The City shall host at least one clean up event per year ( such as Heavy Trash Day and/or E-Recycling). This event provides residents the opportunity to dispose of items not typically received by the trash service provider including electronics recycling, paint cans, and other items that could potentially impact water bodies. These types of events shall be advertised on the City’s website and social media outlets.

Additionally, the City shall encourage and support clean up events open to the public within the MS4 specifically targeting litter, debris, and floatables within the MS4 waterways, specifically within Buck Creek, Cahaba Valley Creek, Peavine Creek, tributaries to these creeks, and along the stream banks and surrounding areas of these creeks and waterways. Clean up areas shall be as determined by the event host. The City shall support creek clean up events within the MS4 as much as possible, assisting with advertising the event on the City’s website as well as providing trash disposal when possible. The City shall document the details of the event including but not necessarily limited to the 1) number of attendees, 2) location of the clean up event, 3) date of the event, and 4) if possible, amount of trash removed. The City plans to partner with local environmental groups which will be identified moving forward.

**STORM WATER MANAGEMENT PROGRAM PLAN**  
**City of Pelham MS4**

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**Recycling**

The City provides weekly recycling pick up service available for citizens of Pelham. This service is posted on the City's website.

The City shall attempt to receive funding for the placement of recycling receptacles at all public parks in addition to existing trash receptacles.

**Responsible Departments**

Coordination: City Engineer

Storm Drain Labeling, Signage and Clean Up Events: Public Works Department

**Measurable Goals**

<b>Goal</b>	<b>Schedule</b>	<b>Implementation</b>
Educational Material Distribution	Once Annually for each Target Audience/Pollutant Source	December 1, 2016
Educational Workshops and Training Courses	Twice Annually	December 1, 2016
Participation in Heavy Trash Day, Pelham Palooza, and Fire on the Water	Annually	October 1, 2018
No Littering/Dumping Signage	As Needed	December 1, 2016
Storm Drain Labeling	As Needed	December 1, 2016
Support Clean Up Events	As Needed	December 1, 2016
Program Evaluation	Annually	December 1, 2015

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#### **C. Illicit Discharge Detection and Elimination**

The MS4 shall implement an ongoing program to detect and eliminate illicit discharges into the MS4 to the maximum extent practicable, as required by Part II.B.3 of the Permit.

An illicit discharge is any discharge to the MS4 that is not composed entirely of storm water except for the following direct or indirect non-storm water discharges, unless they are determined by the City to be a source of contamination:

1. Waterline and fire hydrant flushing
2. Discharges from potable water sources
3. Landscape irrigation
4. Diverted stream flows
5. Rising ground waters
6. Uncontaminated ground water infiltration
7. Uncontaminated pumped groundwater
8. Foundation and footing drains
9. Air conditioning condensation
10. Discharges from springs
11. Water from crawl space pumps
12. Irrigation watering (except treated and untreated wastewater unless authorized by ADEM)
13. Lawn watering runoff
14. Individual residential car washing and charitable car washes
15. Flows from riparian habitats and wetlands
16. Dechlorinated swimming pool discharges
17. Residual street wash water
18. Discharges from fire fighting activities
19. Discharges authorized in compliance with a separate NPDES permit

#### **Outfall Mapping**

The City has developed a map of all known major storm water outfalls within the MS4. The current map provided as Figure 4 is based on recent revisions to the historical MS4 mapping. Based on the recent revisions, there are currently 128 known major outfalls in the project area. A list of these outfalls is located in Appendix 3. It should be noted that this list (and associated map) will continually be revised as needed on an annual basis when new outfalls are added and as annual dry weather screening and outfall mapping is performed.

#### **Schedule to Screen Outfalls**

The City shall maintain a schedule to screen each known major storm water outfall within the MS4 at least once during the life of the Permit. During each year of the Permit, the City shall screen a minimum of 20% of the total major outfalls, or approximately 26 outfalls based on the current list. The minimum number of outfalls screened per year shall increase if more major outfalls are constructed or located. The screening schedule will vary from location to location depending on rainfall

## STORM WATER MANAGEMENT PROGRAM PLAN

### City of Pelham MS4

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totals and seasonal accessibility. Priority outfalls as categorized below shall be inspected annually.

#### **Priority Outfall Inspections Schedule**

A dry-weather screening schedule for all known major outfalls within the MS4 shall be maintained by the City based on the priority system described below. This prioritized list will be compiled from any citizen complaints received and from all wet outfalls discovered during the dry-weather screening process. The priority system shall be based on the following criteria:

1. All outfalls whose effluent contained more than 0.2 mg/l of MBAS;
2. All outfalls with a pH less than 6 and greater than 8;
3. All outfalls whose effluent contained more than 1 mg/l of NH<sub>3</sub>N or 4.0 mg/l of oil and grease;
4. All outfalls whose effluent contained more than 126 colonies/100 mL of E.Coli; and
5. All outfalls whose effluent contained more than 10 mg/L of potassium.

The resulting list of outfalls shall be prioritized according to flow rate, with the highest flow rates receiving top priority. As stated above, priority outfalls shall be screened annually.

#### **Dry-Weather Screening Procedures**

The City shall use the EPA guidance manual, *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments* by the Center for Watershed Protection, as the primary source of investigative techniques and guidance for the MS4's dry weather screening program. This manual has been incorporated within Appendix 5 of this SWMPP.

The City has developed an SOP for illicit discharge detection and reporting that has been provided to all City departments and is included in Appendix 5. Screening procedures shall consist of field locating the selected outfalls to be screened for the given year through the use of the MS4 outfall inventory and map. Outfalls shall be inspected after a minimum of 72 hours of dry weather. A field data sheet shall be filled out for each major outfall encountered by the field crew. Should an outfall be found discharging liquid, the source of the liquid shall be investigated and traced upstream in an effort to determine the source. If the source is unidentifiable or suspected to be illicit, a water sample shall be collected and tested. Based on the laboratory analysis of the sample, the outfall shall be prioritized and scheduled for further investigation as needed. A flow chart depicting the screening and investigative process is presented as Figure 3. A copy of the field data sheet used for screening outfalls is presented in Appendix 4. Outfalls requiring maintenance or repair shall be reported to the City's Public Works Department.

#### **Sanitary Sewer Seepage**

The City shall limit, to the MEP, the contamination of the MS4 by sanitary sewage.

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The two primary sources of contamination are sanitary sewage collection systems and septic tanks. Exfiltration from old or damaged sewer collection systems can contaminate storm water drainage systems that are located nearby. In addition, malfunctioning septic tank systems may cause partially treated wastewater to pool on the ground surface and to possibly flow into the storm water drainage system.

This type of contamination shall be detected by physical inspection of the storm water drainage path and by chemical analysis of the runoff. Physical signs might include turbidity, floatables, temperature, color, and odor. The chemical analysis of runoff containing sanitary sewage might reveal high levels of E. Coli., NH<sub>3</sub>N, and MBAS. The dry-weather screening program offers one method of detection for sanitary sewage contamination.

However, a major reduction, to the MEP, of the infiltration and inflow of seepage, sanitary sewage overflows (SSO's), and bypasses from sanitary sewers into the MS4 can only be accomplished through prudent operation of the local sewer collection system and individual on-site septic systems. The City owns and operates a sanitary sewer treatment plant and collection system that serves a majority of the MS4. Contact information for the City's sewer system is provided in Table 1. The City prohibits the discharge of fats, oils, and grease (FOG) into the City's sewer collection system per the City's Sewer Ordinance (#156) in an effort to prevent potential blockages and subsequent sanitary sewer overflows.

The City of Alabaster and Southwest Water Company own and operate wastewater treatment plants that drain to Pelham's MS4. Attention will be paid to any SSO's that may occur from these systems.

Individual on-site septic tank disposal systems are also located within the MS4 and are regulated by the Alabama Department of Public Health. The City shall notify the following in the event that an illicit discharge is suspected from a failing on-site disposal system:

Shelby County Health Department  
2000 County Services Drive  
Pelham, AL 35124  
(205) 664-2470

All sanitary sewer infiltration and inflows, overflows, and illicit bypasses discovered by (or reported to) the MS4 shall be reported to the appropriate sewer authority as promptly as possible to reduce the possibility of contamination of the MS4. The City shall make an effort to coordinate with the Alabama Department of Public Health to locate and track existing on-site septic tank systems, particularly known problem areas. Additional educational BMPs shall be implemented specifically targeting owners of on-site septic tank disposal systems (e.g. educational pamphlets). These BMPs shall be relied on to facilitate proper operation and maintenance of individual on-site septic disposal systems.

## **STORM WATER MANAGEMENT PROGRAM PLAN**

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The MS4 shall keep an updated record of all known raw sewage discharges that occur within the MS4 to better track illicit discharges within the MS4. This record shall be compiled annually by the City for incorporation into the annual storm water report. The following information shall be included in the record for each unpermitted discharge that occurs:

1. The cause of the discharge;
2. Date, duration, and volume of discharge (estimate if unknown);
3. Description of the source (e.g. manhole, lift station);
4. Location of the discharge, by street address or any other appropriate method;
5. The ultimate destination of the flow (e.g. surface waterbody, municipal separate storm sewer to surface waterbody) shown on a USGS Quad sheet or copy thereof; and
6. Corrective actions or plans to eliminate future discharges.

#### **Elimination & Enforcement Procedures**

Procedures for enforcement shall be included in the revised City of Pelham Storm Water Management Ordinance. This ordinance will be revised and incorporated as Appendix 1 of this SWMPP once ADEM has reviewed and provided comments on this SWMPP.

In general, if an illicit discharge is discovered, the discharger shall be provided a letter which shall serve as a written Notice of Violation. The Notice of Violation shall outline a time line for the discharger to provide: 1) an explanation of the violation, 2) schedule for the satisfactory correction of the violation, and 3) prevention of future illicit discharges. The City will also employ ADEM to provide clinical assistance when needed as well as potential enforcement action as appropriate to address an illicit discharge.

After response from the discharger, the MS4 shall ensure that the illicit discharge has ceased. Should the illicit discharge continue, a second Notice of Violation shall be sent to the discharger which shall include notification to the discharger of further action determined necessary by the MS4 if the illicit discharge continues. The proposed revised ordinance shall have provisions for fines as well as compensatory action (in lieu of fines), which could include but not be limited to attendance of storm water educational workshops, creek cleanups, etc. Additionally, the proposed revised ordinance shall have provisions for the violator to appeal the notice of violation.

#### **Illicit Discharge Detection Training**

The City shall provide illicit discharge detection training on an annual basis to field personnel within the City's Water, Sewer, Street, and Building Departments, and all field personnel performing dry weather screening activities. Training shall include identification, documentation, reporting, and corrective action of illicit discharges. Training shall also include a review of basic safety measures and precautions. City employees are an efficient force for identifying illicit discharges so making sure

**STORM WATER MANAGEMENT PROGRAM PLAN**  
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communication exists across all departments regarding illicit discharges is critical.

Training events shall be documented including, but not limited to, the date and duration of the training event, attendees, and items covered during the training event.

**Reporting of Illicit Discharges**

The public is encouraged to notify the City of Pelham of any suspected illicit discharges by either their website at the following link: <https://pelhamalabama.gov/requesttracker.aspx> or by calling the City of Pelham’s City Hall at (205) 620-6400. Upon notification, an MS4 representative shall investigate the suspected illicit discharge using the procedures mentioned above.

Should the MS4 be alerted to or discover an illicit discharge of sanitary sewage, the MS4 shall notify the owner of the sewer system causing the illicit discharge so that it may be corrected as quickly as possible.

Should the City suspect an illicit discharge from an adjacent MS4 into the City’s MS4, the City shall notify the adjacent MS4 and ADEM directly.

**Responsible Department**

Coordination and Training: City Engineer & Municipal Consultants, Inc.

Mapping and Screening Activities: City Engineer & Municipal Consultants, Inc.

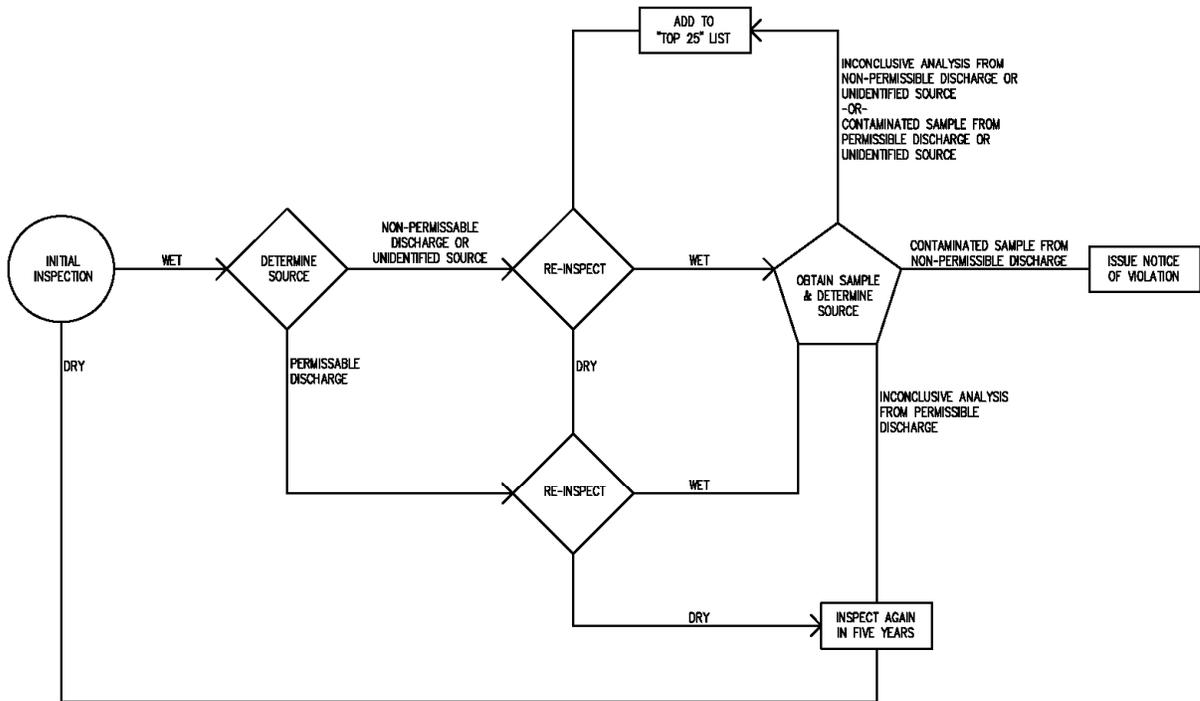
**Measurable Goals**

<b>Goal</b>	<b>Schedule</b>	<b>Implementation</b>
Dry Weather Screening	Annually	December 1, 2015
Updating Outfall Map	Annually	December 1, 2015
Public Education on Septic Tank Systems	Annually	December 1, 2016
Illicit Discharge Detection Training	Annually	December 1, 2015
Program Evaluation	Annually	December 1, 2015

**STORM WATER MANAGEMENT PROGRAM PLAN**  
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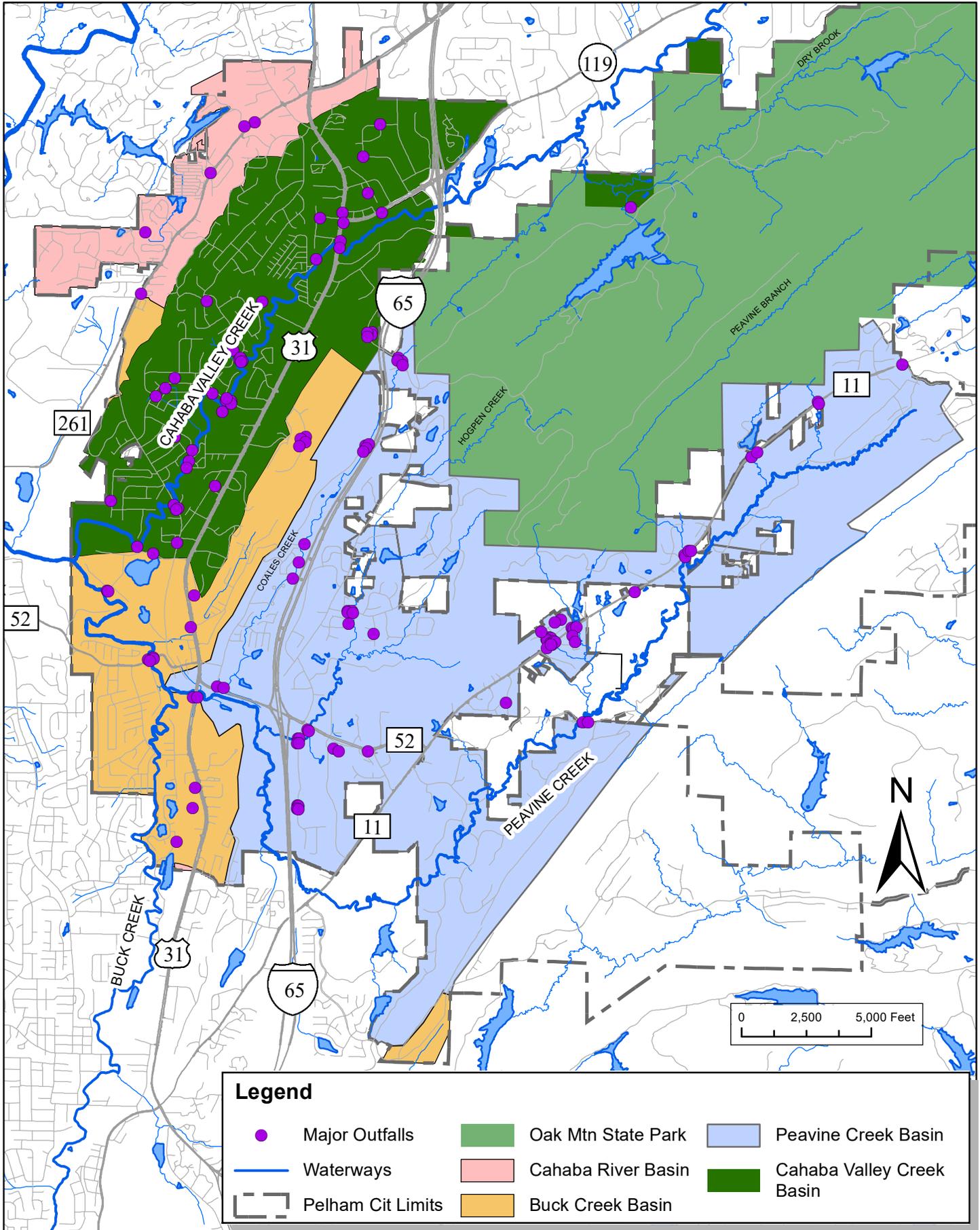
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**DRY-WEATHER SCREENING FLOW CHART**



**FIGURE 3**

**Figure 4: Major Outfalls**



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### City of Pelham MS4

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#### **D. Construction Site Storm Water Runoff**

The City shall implement and enforce a program to reduce, to the maximum extent practicable, the pollutants in any storm water runoff to the MS4 from qualifying construction sites.

#### **Site Plan Review:**

Once an applicant initiates the process of obtaining a Building Permit with the City of Pelham Building Department, the applicant is provided with a packet of requirements for the permitting process. If land disturbance is involved in the project, this packet will include a Land Disturbance Permit application, a “Typical Erosion Control General Notes” document, and a certification statement required to be signed by the applicant stating that Stormwater BMPs will be followed. These documents have been provided in Appendix 5 for reference. The City requires that all land owners, contractors, and/or developers acquire a Land Disturbance Permit prior to any land disturbance, regardless of the size of the site. As part of this process, the City requires evidence of a NPDES permit if required by ADEM, as well as a site plan detailing the limits of disturbance and the proposed BMPs that will be used to control storm water runoff from the site. The BMP plan submitted by the applicant shall be reviewed by the City with respect to the criteria set forth in the latest edition of the *Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas* (Alabama Handbook). Inconsistencies noted shall be corrected by the applicant prior to issuance of a Land Disturbance Permit. A link to the Alabama Handbook (as provided in Appendix 5), as well as various other educational materials regarding construction site erosion and best management practices, shall be posted on the City’s website for ease of access for local engineers, developers, contractors, and the general public and hard copies made available for use at the City’s Building Department.

#### **Construction Site Inspections**

The City shall perform on-site inspections of the applicant’s BMPs to verify the use and proper maintenance of the BMPs. Inspections shall follow the inspection report contained in Appendix 4. All inspections shall be documented as required with photos, descriptions or site BMPs, site information, date of inspection, etc. The City shall maintain a current inventory of construction sites and track inspections and enforcement actions for each site. The inventory shall include the size of the project and area of disturbance, status of permit coverage under the Alabama Construction Site General Permit, whether the qualified construction site is in a priority watershed, and the date the City approved the construction site plan.

- **Standard Procedures**

The City inspects each construction site prior to construction activities to ensure that storm water BMPs are in place and adequate. During construction, the City shall conduct a BMP inspection simultaneously with other routine inspections (e.g. foundation, plumbing, electrical, etc...). If deficiencies are noted, no further inspections will be performed until corrective actions of the BMPs are completed. Enforcement actions may be necessary as detailed below. Upon final inspection of the site and prior to issuing the certificate of occupancy, the site is inspected to

## STORM WATER MANAGEMENT PROGRAM PLAN

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ensure there are no erosion or sediment deficiencies on the site, the site is stabilized, and all landscaping is complete before a Certificate of Occupancy is issued.

- **Inspection Frequency for Priority Construction Sites**  
Due to the sensitivity of the Cahaba River watershed, all construction sites within the City's MS4 are considered priority construction sites by the NPDES Permit. All priority construction sites shall be inspected at least once a month.

Additionally, should the City receive a complaint from the public concerning erosion and siltation from a construction site, the City shall conduct an inspection of the site.

- **Training of Inspection Staff**  
All building site inspectors shall be QCI certified through an ADEM approved training program. Certification shall be renewed annually.
- **Educational Resources for Construction Site Operators**  
Upon issuance of each land disturbance permit, the City shall provide either a digital or hard copy educational pamphlet that specifically addresses construction site BMPs. This pamphlet is currently available on the City's website.

#### **Notification by the Public**

The public is encouraged to report failing construction site BMPs or lack of construction site BMPs. The public may report such violations to the City Engineer or on the City's website (Action Center) at <https://pelhamalabama.gov/requesttracker.aspx>. The City shall document all public complaints regarding construction site storm water runoff.

#### **Enforcement**

If construction site storm water BMPs are found to be deficient upon inspection by the City, the City shall verbally notify the responsible party immediately. If the deficiency is not or cannot be remedied immediately, a Notice of Violation may be issued by the City. This notice shall provide the reason for the violation and require the violation to be remedied as quickly as practicable, but not more than 10 days. The notice shall also be provided to ADEM for their records. Additional building inspections required (e.g. foundation, plumbing, electrical, etc.) to obtain a certificate of occupancy shall be withheld until the noted BMP deficiencies are corrected.

On a case by case basis and under extreme circumstances, the City may pursue monetary fines and penalties as provided in the Stormwater Management Ordinance if withholding inspections is not sufficient for compliance. If the City elects to levy fines, a second Notice of Violation shall be provided to the responsible party stating that the deficiency has not been corrected and that the City will begin levying fines upon the responsible party if the deficiency is not corrected within 10 days. If the deficiency continues and the responsible party is not cooperative, the City may escalate fines as needed and provided by the Ordinance.

**STORM WATER MANAGEMENT PROGRAM PLAN**  
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**Legal Authority**

The City’s Stormwater Management Ordinance and Subdivision Regulations provide the legal authority to enforce this program and are provided as Appendix 1 and 2 respectively. As mentioned previously, these documents will be revised as needed to support this SWMPP. These documents will also be posted on the City’s website.

**Responsible Departments**

Plan Review and Coordination: City Engineer/Building Department

Construction Site Inspections and Enforcement: City Engineer/Building Department

**Measurable Goals**

<b>Goal</b>	<b>Schedule</b>	<b>Implementation</b>
Construction Site Inventory	Update as Needed	December 1, 2015
Construction Site Inspections	Monthly (minimum)	December 1, 2015
Training of Inspection Staff	Annually	December 1, 2015
Program Evaluation	Annually	December 1, 2015

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#### **E. Post-Construction Storm Water Management**

The City shall develop and enforce a program to address the discharge in post-construction storm water runoff to the MS4 from new development and re-development. Management of post-construction site storm water runoff refers to activities that take place after construction occurs, and includes maintenance of structural and non-structural controls including low-impact development and green infrastructure practices to obtain permanent storm water management over the life of the property's use.

#### **Plan Review, Design, & Continued Management**

Plan review of Post-Construction BMPs shall be conducted by the City simultaneously with the construction plan review process mentioned in the Construction Site Storm Water Runoff Program. Land Disturbance Permit applicants shall be required to consider the following criteria in preparing their plans:

1. Provide vegetated buffers along waterways and reduce discharges to surface waters from impervious surfaces such as parking lots;
2. Preserve and protect ecologically sensitive areas that provide water quality benefits;
3. Minimize the amount of impervious areas resulting from construction to the maximum extent possible;
4. Minimize topsoil stripping and compacted soils where feasible;
5. Grades should be made as gradual as possible without altering the existing site conditions significantly;
6. Encourage low impact development (LID)/green infrastructure which utilizes infiltration, evapotranspiration, and/or stormwater harvesting or reuse. A link to the Alabama LID Handbook may be found on the City's website at <https://pelhamalabama.gov/171/MS4-Stormwater-Program> or may be viewed directly at <http://adem.alabama.gov/programs/water/waterforms/LIDHandbook.pdf>.

At the discretion of the City, a permit may be withheld if the applicant fails to consider the guidelines presented above.

Applicants shall develop and maintain best management practices to ensure, to the maximum extent practicable, that post-construction runoff mimics pre-construction hydrology of the site. Post-construction BMPs shall be designed for a 1.1" rainfall over a 24 hour period preceded by a 72 hour antecedent dry period. Additional structural control design requirements are provided in the Subdivision Regulations included in Appendix 2. For subdivisions, the developer shall provide the City a draft covenant for review that establishes the property owner(s) obligations to maintain the stormwater drainage and detention facilities.

#### **Record Drawings**

The applicant shall provide as-built drawings with an as-built certification within 120 days of construction completion. Construction is considered complete when the applicant receives a certificate of occupancy or final plat is approved (for subdivisions). As-built

## STORM WATER MANAGEMENT PROGRAM PLAN

### City of Pelham MS4

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drawings shall reflect any changes made from the approved construction drawings and shall show all pertinent information including but not limited to edges of pavement, storm sewers (including all pertinent elevations), utilities, 2' contours, proposed future structures, etc. All hydrology calculations initially provided for plan review shall be revised and provided with the as-built drawings. As-builts shall be provided in hard copy and digital format acceptable to the City for incorporation into the City's GIS website.

#### **Inventory**

Currently, the City inspects the post-construction structural controls included within Appendix 6.

#### **Inspections**

The City shall perform, at a minimum, annual post-construction inspections of the site's structural controls (i.e. detention and retention ponds, filter strips, bioretention areas, etc.) to ensure that design standards are being generally met. Documentation shall remain on file with the City for a minimum of 5 years after coverage of the City's Permit expires and shall include:

1. Facility type,
2. Inspection date,
3. Name and signature of inspector,
4. Site information,
5. Owner information,
6. Description of the stormwater BMP conditions, including the overall quality and effectiveness of the BMPs,
7. Photographic documentation of all critical BMPs,
8. Specifically maintenance items or violations that need to be corrected by the operator,
9. Any maintenance agreements for long-term BMP operations and maintenance.

The City shall maintain records of post-construction inspections, maintenance activities, etc. Corrective actions shall be made by the property owner to poorly functioning or inadequately maintained BMPs. It is anticipated that in the future the City will require the property owner and/or responsible party to self perform the inspections described above and provide them to the City once the City revises the Stormwater Ordinance. Currently, inspections are performed on private property by the City as provided for by the current Stormwater Ordinance (Appendix 1). The inspection form used is the same for City owned structural control inspections and can be found within Appendix 4 of this SWMPP.

In addition, Owners/Operators/Developers shall provide the following, as applicable:

1. A signed statement from the developer/operator accepting responsibility for maintenance of the property until the responsibility for maintenance is legally transferred to another party; and/or

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**City of Pelham MS4**

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2. Written conditions in the sales or lease agreement that require the recipient to assume responsibility for maintenance; and/or
3. Written conditions in project conditions, covenants, and restrictions for residential properties assigning maintenance responsibilities to a homeowner association, or other appropriate group, for maintenance of structural and treatment control management practices; and/or
4. Any other legally enforceable agreement that assigns permanent responsibility for maintenance of structural or treatment control management practices.

**Enforcement**

Upon noting deficiencies discovered by the City during routine inspections, the City shall provide written Notice of Violation of the deficiency to the owner of the structural control. The City shall rely on the Cleanliness of Premises Ordinance (Appendix 8) to ensure general maintenance of structural controls. If the responsible party does not perform the necessary maintenance after said notice, the City shall utilize all resources available to ensure the responsible party performs the necessary work.

**Responsible Departments**

Plan Review and Coordination: City Engineer

Site Inspections: City Engineer and Municipal Consultants, Inc.

**Measurable Goals**

<b>Goal</b>	<b>Schedule</b>	<b>Implementation</b>
Post-Construction BMP Inventory	Update as Needed	December 1, 2016
Inspections	Annually	December 1, 2016
Program Evaluation	Annually	December 1, 2015

## **STORM WATER MANAGEMENT PROGRAM PLAN**

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#### **F. Spill Prevention & Response**

The City has developed and will implement a program to prevent, contain, and respond to spills that may discharge to the MS4.

##### **Spill Prevention**

The City has identified two separate groups to address spill prevention within the MS4. These groups are the 1) general public and 2) City's Municipal Facility employees.

The City shall rely upon its public education and involvement program in order to educate the general public. Municipal Facility employees shall be trained on the potential detrimental impacts of hazardous substance spills, how to prevent spills, and how to respond to spills as part of Part II.G of this SWMPP.

##### **Spill Response**

The first responder to spills within the MS4 is the Pelham Fire Department's HAZMAT unit. The Fire Department also utilizes the Shelby County Emergency Management Agency (EMA) to respond and assist to spills within the City. The EMA plans for the protection of the environment in the event of a spill. In coordination with the EMA, the City's emergency operation centers and fire departments assist in responding to a spill. The EMA notifies ADEM of any spills greater than 25 gallons.

Facilities that use, store, manufacture, or transport federally designated hazardous substances within the City of Pelham are mandated to distribute Material Safety Data Sheets to the local Shelby County EMA and Pelham Fire Department per Title III of the Superfund Amendment and Reauthorization Act. Through this reporting system, the EMA and Pelham Fire Department are able to track all entities that handle federally designated hazardous substances. These entities shall be inspected by the City as part of the City's Industrial Storm Water Runoff Program included in Part II.J of this SWMPP.

##### **Mapping**

The City shall maintain a map of all known spills in an effort to track and identify historical trends and potential problem areas (if any).

##### **Training**

Training events shall be documented to include the topic of training as well as dated attendance sheets. Typically, the Pelham Fire Department's HAZMAT Unit holds weekly spill response training sessions. Training for City employees on spill prevention and response is covered under Part II.G of this SWMPP.

##### **Standard Operating Procedures**

Appendix 5 includes a copy of the Pelham Fire Department HAZMAT Unit's SOP. A Municipal Facility SOP shall be developed in accordance with the schedule provided in Part II.G.

**STORM WATER MANAGEMENT PROGRAM PLAN**  
**City of Pelham MS4**

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**Responsible Departments**

Mapping & Coordination: Municipal Consultants, Inc.

Spill Response: Shelby County EMA & Pelham Fire Department/HAZMAT

**Measurable Goals**

<b>Goal</b>	<b>Schedule</b>	<b>Implementation</b>
Spill Prevention Education Materials	See Part II. B	See Part II.B
Spill Response	As needed	December 1, 2015
Spill Prevention and Response Training (Municipal Facility Employees)	See Part II.G	See Part II.G
HAZMAT Spill Response Training	Weekly	December 1, 2015
Program Evaluation	Annually	December 1, 2015

## STORM WATER MANAGEMENT PROGRAM PLAN

### City of Pelham MS4

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#### **G. Good Housekeeping for Municipal Operations**

The City shall implement and maintain a program that will prevent or reduce the discharge of pollutants in storm water run-off from municipal operations to the maximum extent practicable as required by the Permit. Municipal operations include City vehicle fleet maintenance, litter control, street maintenance, and pesticide and fertilizer application.

#### **Municipal Facilities**

Below is a list of City owned facilities associated with the activities listed above. A map of these facilities is provided as Figure 5.

1. City Garage
2. Water Department Material Storage Yard
3. City WWTP

#### **Inspections**

All municipal facilities listed above shall be inspected on an annual basis. A copy of the inspection form is provided in Appendix 4.

#### **Training**

Training on good housekeeping practices shall be required for all municipal facility staff or staff that routinely visit the facilities listed above. Training shall be performed annually and shall include standard training for operation of municipal type facilities. Dates and attendance of training events shall be documented.

#### **Litter Control Program**

A litter control program shall be continued by the City in an effort to minimize litter entry to the MS4. The current litter control program utilizes the resources of the City to collect litter along City roads and main corridors as well as City parks on a weekly schedule. In addition to routine litter collection performed by the City, the City shall encourage the direct removal of trash from waterbodies within the MS4 through annual creek clean up events, alternative disposal methods through recycling, and additional BMPs concerning litter as described within the Public Education and Involvement program contained within this SWMPP. The City encourages proper disposal of trash at City parks by providing public trash receptacles within all City owned parks. Additionally, the City provides assistance with trash collection for large events where substantial quantities of trash are generated such as events held within the Oak Mountain State Park or Oak Mountain Amphitheater. The City shall require events to be cleaned up within 24 hours following the conclusion of the event. The City shall also participate in the City's Heavy Trash Day on an as needed basis.

#### **Street Maintenance**

Street maintenance includes but is not limited to pothole, sidewalk, and curb and gutter repairs, storm sewer cleaning, repair, or replacement, road reconstruction and resurfacing, and City R.O.W. maintenance. In order to minimize pollutants from street maintenance, the City shall follow guidelines provided in the latest revision of the *Alabama Handbook*

**STORM WATER MANAGEMENT PROGRAM PLAN**  
**City of Pelham MS4**

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*for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas (Alabama Handbook).* The City currently utilizes this document in preparing BMP plans for its projects within City R.O.W. The City of Pelham performs the majority of their road work through the public bid process, with the exception of routine maintenance and small repairs. The BMPs provided by the Alabama Handbook and other documents as recommended by ADEM, shall be required of contracts for work within the MS4 and used when performing these minor repairs. Road improvement projects where asphalt overlaying is required but no land disturbance or milling is required shall not be subject to the Alabama Handbook.

**PHF Application**

Regarding pesticide, herbicide, and fertilizer application (PHFs), please refer to the Application of PHFs program within this SWMPP.

**Flood Management Projects**

There are currently no proposed flood management projects within the MS4. However, all flood management projects performed will be tracked and added to the City’s list of structural controls (upon successful completion) on an as need basis.

**Standard Operating Procedures**

SOPs have been implemented and included within Appendix 5 of this SWMPP. SOPs will be developed for but not limited to equipment washing, City street and R.O.W. maintenance, storage and disposal of chemicals and waste, spill response, and vehicle maintenance.

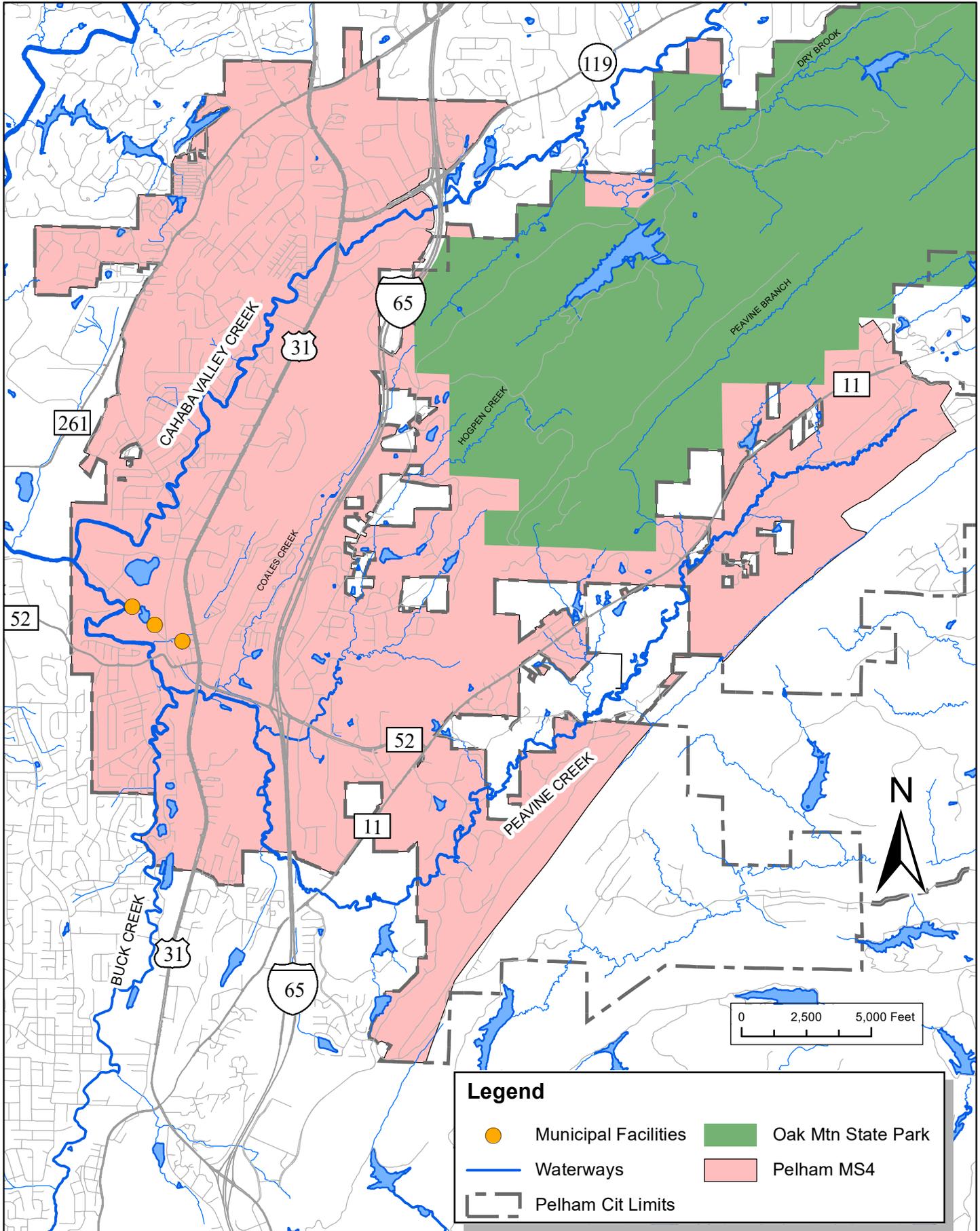
**Responsible Departments**

City Engineer and Public Works Department

**Measurable Goals**

<b>Goal</b>	<b>Schedule</b>	<b>Implementation</b>
Municipal Facility Inventory	Update as needed	December 1, 2015
Municipal Facility Inspection	Annually	December 1, 2015
Street Maintenance BMPs	As needed	December 1, 2015
Litter Control	On-going	December 1, 2015
Flood Mngmt. Project Inventory	Update as needed	December 1, 2015
Development of SOPs	Develop/Update as needed	December 1, 2017
Municipal Facility Staff Training	Annually	December 1, 2017
Program Evaluation	Annually	December 1, 2015

**Figure 5: Municipal Facilities**



**STORM WATER MANAGEMENT PROGRAM PLAN**  
**City of Pelham MS4**

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**H. Application of PHFs**

The City implements measures to ensure the safe storage, use, and application of pesticides, herbicides, and fertilizers (PHFs). In general, the City only applies PHFs on an as need basis and utilizes mowing practices to reduce the use of such products. The City typically refrains from using fertilizers, with the exception of City parks, which is typically performed by a commercial applicator. All commercial applicators hired by the City shall be required to provide evidence of proper certification and licensure for applying the desired product. The City shall include within each annual report records of the amounts and specific types of products the City stores and applies each year along with MSDS sheets for each chemical. Typically, the City only applies commercially available products and applies in full accordance with the manufacturer’s recommended practices. The City shall adhere to all applicable requirements set forth by the Alabama Department of Agriculture and Industries and shall also review the City’s eligibility of the ADEM NPDES Pesticide General Permit ALG870000 and apply if necessary. The City shall also develop a standard operating procedure to detect improper usage of PHFs as described in Part II.G of this SWMPP.

**Inspection of PHF Storage Facilities**

The City shall inspect all facilities that store PHFs on an annual basis. Currently there is one location that stores such products. Please refer to Appendix 4 for a sample of the facility inspection form.

**Training**

PHFs shall be applied by certified employees for the particular product being applied. All applicators, whether a City employee or a commercial applicator retained by the City, shall maintain current certification and training as required by the Alabama Department of Agriculture and Industries. In general, City employees shall receive annual training on PHF storage, application, and disposal of PHFs.

**Responsible Departments**

City Engineer, Public Works Department, Parks and Recreation Department

**Measurable Goals**

<b>Goal</b>	<b>Schedule</b>	<b>Implementation</b>
PHF Storage Facility Inventory	Update as needed	December 1, 2015
PHF Storage Facility Inspection	Annually	December 1, 2015
PHF Inventory	Update as needed	December 1, 2015
Inventory and Prioritization of High-Use Areas	Develop/Update as needed	December 1, 2016
Development of SOP	See Part II.G	See Part II.G
City Employee Training	Annually	December 1, 2016
Program Evaluation	Annually	December 1, 2015

**STORM WATER MANAGEMENT PROGRAM PLAN**  
**City of Pelham MS4**

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

The City shall implement a program to promote, publicize, and facilitate the proper management and disposal of used oil and household hazardous wastes and prohibit, to the maximum extent practicable, the discharge or disposal of used motor vehicle fluids and household hazardous wastes into the MS4. The City intends to accomplish this through the items listed below.

**Public Education**

The City shall develop and maintain an educational pamphlet to meet this requirement. This pamphlet shall describe the management and disposal options available to the public for household hazardous wastes and the proper disposal of used oil and shall be available at the distribution locations listed within Part II.B of this SWMPP as well as on the City's website. The City shall expand the distribution of this pamphlet, and develop other pamphlets dealing with similar issues, as resources allow.

The City shall also provide a list of used oil collection facilities within the MS4 and shall post this information on the website.

**Spill Prevention & Response Training**

City employees who directly handle, manage, and dispose of oils or other toxic materials shall receive annual spill prevention and response training as part of the training specified in Part II.G of this SWMPP.

**Responsible Departments**

City Engineer

**Measurable Goals**

<b>Goal</b>	<b>Schedule</b>	<b>Implementation</b>
Development of Public Education Materials	See Part II.B	See Part II.B
Posting of Used Oil Collection Facilities	Update as Needed	December 1, 2016
City Employee Training	See Part II.G	See Part II.G
Program Evaluation	Annually	December 1, 2015

## STORM WATER MANAGEMENT PROGRAM PLAN

### City of Pelham MS4

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#### **J. Industrial Storm Water Runoff**

The City shall implement a program to inspect, monitor, and control pollutants in storm water discharges to the MS4 from municipal waste landfills, hazardous waste treatment, storage, disposal, and recovery facilities, and industrial facilities and high risk commercial facilities that are subject to EPCRA Title III, Section 313; and any other industrial or commercial discharge the permittee determines is contributing a substantial pollutant loading to the MS4. There are currently no municipal waste landfills or hazardous waste treatment, storage, disposal, or recovery facilities within the MS4 at this time.

The City shall inspect those industrial and commercial sites believed to be capable of contaminating the MS4 with substantial pollutant loadings that do not operate under an individual NPDES permit issued by ADEM. The City shall maintain a list of these facilities and update annually. Site selection shall be based on business license code categories and then site specific review based on aerial photography, knowledge of site operations, and an initial site inspection if needed. The current list is presented in Appendix 6. If it is determined that any of these sites may be contributing pollutants to the MS4, monitoring shall be initiated on a frequency determined by the MS4 on a case-by-case basis to include the collection of quantitative data on the following constituents:

1. any pollutants listed in an existing NPDES permit for an identified facility;
2. oil and grease;
3. chemical oxygen demand (COD);
4. pH;
5. biochemical oxygen demand, five-day (BOD<sub>5</sub>);
6. total suspended solids (TSS);
7. total phosphorous;
8. total Kjeldahl nitrogen (TKN);
9. nitrate plus nitrite nitrogen; and
10. any information on discharges required under 40 CFR 122.21(g)(7)(iii) and (iv).

Specifically regarding facilities operating under an individual NPDES permit issued by ADEM, said facilities shall submit to the City Engineer the following: 1) a copy of the Notice of Intent provided to ADEM, 2) ADEM's verification of coverage, 3) a copy of the final permit, 4) facility's contact person and contact information. The City shall review all sampling data gathered by the facility/permittee with respect to the facility's NPDES permit. Review of available data shall be sufficient for the City to determine if the facility is contributing substantial pollutant loadings to the MS4. Should the City determine that the facility is in non-compliance, the City may elect to perform an inspection of the facility. The City shall maintain a list of facilities operating under an individual NPDES permit and update this list annually. These facilities are included in the list referenced above (provided in Appendix 6).

#### **Facility Inspections**

The facilities list provided in Appendix 6 shall be inspected at least once annually.

**STORM WATER MANAGEMENT PROGRAM PLAN**  
**City of Pelham MS4**

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The procedures for inspections shall follow those found in Appendix 5. A copy of the field data sheet used for the inspections is presented in Appendix 4. If it is determined by the MS4 inspector that upon facility inspection that the facility does not present a potential pollutant loading to the MS4, the facility will not be re-inspected and shall be removed from the current list of facilities to be inspected.

**Training**

Training of staff that conduct industrial site inspections shall be performed on an annual basis.

**Enforcement and Elimination**

See Part II.C. – Illicit Discharge Detection and Elimination

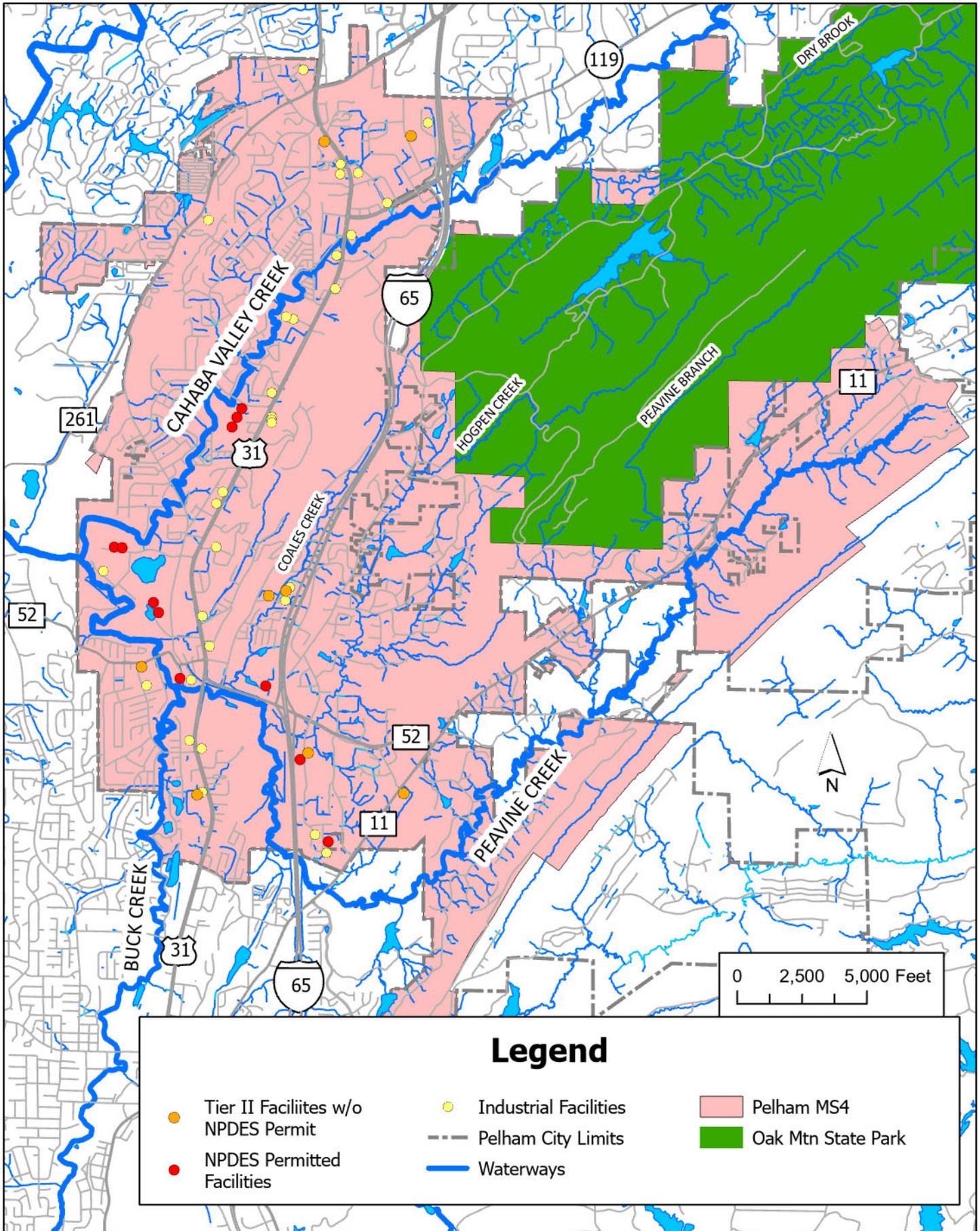
**Responsible Departments**

City Engineer and Municipal Consultants, Inc.

**Measurable Goals**

<b>Goal</b>	<b>Schedule</b>	<b>Implementation</b>
Facility Inspections	Annually	October 1, 2018
Review of Data from Facilities with NPDES Permit	Annually	December 1, 2015
Update Industrial Facility List and Map	Annually	December 1, 2015
Industrial Facility Monitoring	As needed	December 1, 2015
Staff Training	Annually	January 1, 2023
Program Evaluation	Annually	December 1, 2015

# Figure 6: Industrial Facilities



**STORM WATER MANAGEMENT PROGRAM PLAN**  
**City of Pelham MS4**

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**K. Monitoring Programs**

As required by Part III of the Permit, the MS4 shall implement a monitoring program to assess the effectiveness and adequacy of BMPs implemented under this SWMPP. The MS4 plans to accomplish this by implementing the following monitoring programs:

1. Wet Weather Monitoring Program
2. TMDL Monitoring Program

**Wet Weather Monitoring Program**

The Wet Weather Monitoring Program shall consist of grab samples collected per the locations and frequencies listed in the following table:

<b>Waterbody</b>	<b>Representative Watershed</b>	<b>Sampling Frequency</b>
Buck Creek	Residential/Commercial	Quarterly
Cahaba Valley Creek	Industrial/Commercial	Quarterly
Peavine Creek	Residential	Semi-Annually

Refer to Figure 7 for sample locations

Sampling Parameters shall consist of the following:

1. Temperature
2. pH/ORP
3. Turbidity (NTU)
4. Conductivity
5. Dissolved Oxygen
6. Ammonia Nitrogen
7. Biochemical Oxygen Demand (BOD)
8. Chemical Oxygen Demand (COD)
9. E.Coli
10. Hardness
11. Nitrate plus Nitrite Nitrogen
12. Oil and Grease
13. Total Dissolved Solids
14. Total Kjeldahl Nitrogen
15. Total Nitrogen
16. Total Phosphorus
17. Total Suspended Solids

Sample type, collection, and analysis shall be as specified in Part III.C. of the Permit, with grab samples taken within the first 2 hours of discharge for qualifying rain events. Qualifying rain events are defined as events with greater than 0.1 inch of rainfall that occur at least 72 hours from the previously measurable (>0.1”) storm event. Field data shall be recorded on the field data sheet included within Appendix 4. Additionally, and to the extent possible, the depth of rainfall and duration of the event should not deviate by more than 50% from the average depth and duration as recommended by the EPA

**STORM WATER MANAGEMENT PROGRAM PLAN**  
**City of Pelham MS4**

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NPDES Storm Water Sampling Guidance document (EPA, 1992). In general, this equates to a 0.375” to 1.125” depth of rainfall over a period of 4.35 to 13.05 hours for the Southeastern region of the country.

The sampling locations of this program are as listed below:

<b>Waterbody</b>	<b>Location</b>
Buck Creek	End of Stuart Lane (within City Police Firing Range)
Cahaba Valley Creek	End of Stuart Lane (within City Police Firing Range)
Peavine Creek	Hwy. 11 Bridge over Peavine Creek

Refer to Figure 7 for sampling locations

**Water Quality Standards**

When evaluating Wet Weather sampling results, the MS4 shall use water quality parameters set forth in Chapter 335-6-10 of ADEM’s Regulations as a baseline, which can be found at <http://www.adem.state.al.us/alEnviroRegLaws/files/Division6Vol1.pdf> as well as EPA’s National Recommended Water Quality Criteria – Aquatic Life Criteria Table found at <https://www.epa.gov/wqc/national-recommended-water-quality-criteria-aquatic-life-criteria-table>.

**TMDL Monitoring Program**

The TMDL Monitoring Program shall consist of monitoring waterbodies that are listed on the latest final 303(d) list, or otherwise designated impaired by ADEM, or for which a TMDL is approved or established by the EPA that are either within the MS4 or are suspected to be impaired indirectly by the MS4, as required by Part II.E. and Part III.A.2 of the Permit.

The following TMDLs exist within the MS4 or in close downstream proximity of the MS4:

<b>Waterbody</b>	<b>TMDL</b>
Cahaba Valley Creek	Pathogens (Fecal)
Buck Creek	Pathogens (Fecal)
Cahaba River	Pathogens (E.Coli), Siltation, Nutrients

The TMDL Monitoring Program shall consist of collecting in-stream grab samples typically collected at the locations and frequencies outlined below:

<b>Waterbody</b>	<b>Sampling Frequency</b>	<b>Sampling Location(s)</b>
Cahaba Valley Creek	2 Geomeans (Semi-Annually)	End of Stuart Lane (within City Police Firing Range)
		Oak Mountain Amphitheater
Buck Creek	2 Geomeans (Semi-Annually)	End of Stuart Lane (within City Police Firing Range)
		End of Creekside Lane (BUCS-4)

Refer to Figure 8 for sampling locations

**STORM WATER MANAGEMENT PROGRAM PLAN**  
**City of Pelham MS4**

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Sampling Parameters shall consist of the following:

1. E. Coli
2. Total Suspended Solids
3. Total Phosphorus

Additional attention shall be given to the collection of samples. All sampling shall be conducted in a manner that ensures that hold times are followed. At this time, the shortest hold time is for pathogen parameters (E.Coli). Samples shall be adequately temperature controlled as necessary for each parameter tested.

**TMDL Sampling – Pathogens**

An attempt shall be made to conduct sufficient testing to provide 2 geomean calculations for pathogen results each stormwater fiscal year at the sampling locations listed above. This testing shall consist of a minimum of 5 samples per site. Samples shall be separated by a minimum of 24 hours but within a 30 day period for the purposes of calculating a geomean. Typically, grab sampling shall be conducted two days a week for three consecutive weeks. Additional investigative sampling shall be conducted if results indicate levels above the parameters listed in the table below.

Currently the TMDL for Buck Creek, Cahaba Valley Creek, and the Cahaba River adhere to ADEM’s water quality standards for the designated use classification of that stream. Since all three streams are classified as Fish and Wildlife, the following water quality parameters in the table below shall apply to all three streams in regards to pathogen testing (note that although the Buck Creek and Cahaba Valley Creek TMDLs were written for Fecal Coliform, this parameter has since been replaced by E. Coli. in an effort by ADEM to standardize pathogen testing across the State). It should be noted that although portions of the Cahaba River are designated as Outstanding Alabama Waterways, the segment of stream directly below the Buck Creek confluence with the Cahaba River where a majority of the MS4 drains from is listed as Fish and Wildlife.

**E. Coli. Criteria for Fish and Wildlife Use Classification**

	<b>Single Sample (col/100 mL)</b>	<b>Geomean (col/100 mL)</b>
Summer (May – October)	298	126
Winter (November – April)	2507	548

Sampling rounds shall be independent of weather conditions (i.e. sampling rounds may be conducted either during wet weather or dry weather).

As stated above, investigative sampling shall be conducted as determined by the MS4 if water quality standards (listed above) are exceeded for multiple samples and the MS4 suspects an illicit discharge. If investigative sampling is initiated, it shall begin at the sampling location where water quality parameters have been exceeded and continue upstream as needed in an effort to determine the source of contamination.

**STORM WATER MANAGEMENT PROGRAM PLAN**  
**City of Pelham MS4**

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**TMDL Sampling – Nutrients**

Nutrient sampling shall be taken at the same locations, frequencies, and conditions as stated above for pathogen sampling. Nutrient sampling shall consist of Total Phosphorus sampling since the Cahaba River Nutrient TMDL is centered on Total Phosphorus.

Similar to pathogen sampling, investigative sampling shall be conducted as determined by the MS4 if water quality standards (listed below) are exceeded for multiple samples and the MS4 suspects an illicit discharge. If investigative sampling is initiated, it shall begin at the sampling location where water quality parameters have been exceeded and continue upstream as needed in an effort to determine the source of contamination.

Water quality standards for Total Phosphorus shall be in accordance with the applicable TMDL, which states a target in-stream concentration of 0.035 mg/L of Total Phosphorus during the growing season (April-October).

**TMDL Sampling – Siltation**

Siltation sampling shall be taken when pathogen (and nutrient) sampling is performed at the same locations, frequencies, and conditions as stated above. Siltation sampling shall consist of Total Suspended Solids sampling in an effort to be consistent with the Cahaba River Siltation TMDL.

Similar to pathogen and nutrient sampling, investigative sampling shall be conducted as determined by the MS4 if water quality standards (listed below) are exceeded for multiple samples and the MS4 suspects an illicit discharge. If investigative sampling is initiated, it shall begin at the sampling location where water quality parameters have been exceeded and continue upstream as needed in an effort to determine the source of contamination.

Water quality standards for Total Suspended Solids shall be in accordance with the applicable TMDL, which states a target year-round in-stream concentration of 45 mg/L of Total Suspended Solids.

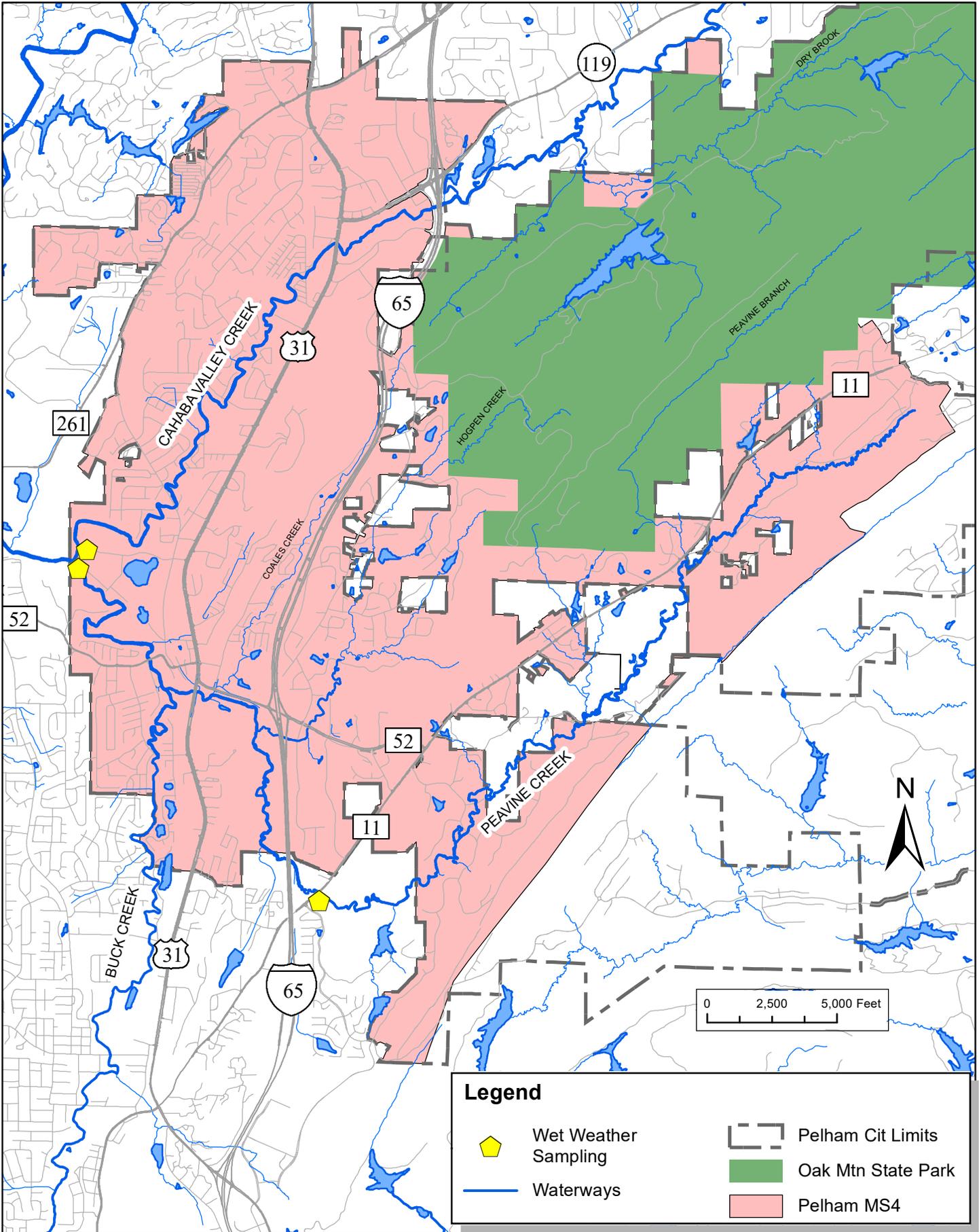
**Responsible Department**

City Engineer and Municipal Consultants, Inc.

**Measurable Goals**

<b>Goal</b>	<b>Schedule</b>	<b>Implementation</b>
Wet Weather Sampling	Quarterly	October 1, 2016
TMDL Sampling	Semi-Annually	December 1, 2015
TMDL Investigative Sampling	As needed	December 1, 2015
Program Evaluation	Annually	December 1, 2015

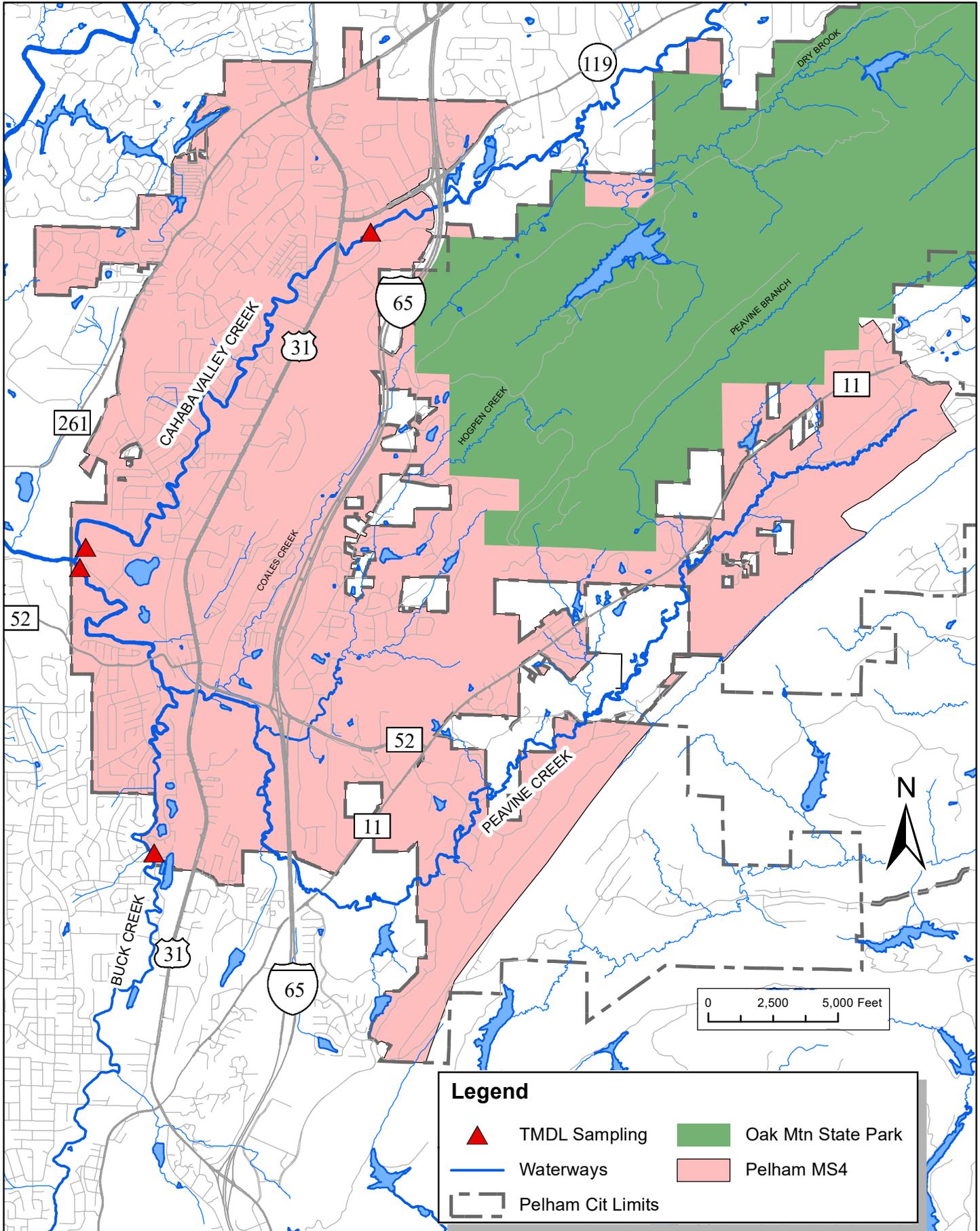
**Figure 7: Wet Weather Sampling Sites**



**Legend**

	Wet Weather Sampling		Pelham Cit Limits
	Waterways		Oak Mtn State Park
			Pelham MS4

**Figure 8: TMDL Sampling Sites**



**STORM WATER MANAGEMENT PROGRAM PLAN**  
**City of Pelham MS4**

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**APPENDIX 1**

City of Pelham Stormwater Management Ordinance

ORDINANCE NO 328

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

THEREUPON Ken Maynard a member moved and Karyl Rice, a  
member seconded the move that said Ordinance be given a vote. Said Ordinance passed by vote  
of all members of the Council present and the Mayor declared the same passed.

ADOPTED this the 21 day of Sept. 1998.

Bobby Hayes  
Mayor

Ken Maynard  
Council Member

Walter B. Suh  
Council Member

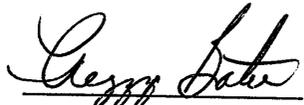
Willard C. Bogue  
Council Member

Karyl D. Rice  
Council Member

Jim Phillips  
Council Member

Seal

ATTEST

  
Cheryl Baker  
City Clerk

ORDINANCE NO. \_\_\_\_\_

AN ORDINANCE TO ESTABLISH STORM WATER  
MANAGEMENT AND WATER QUALITY CONTROLS,  
PROGRAMS, REGULATIONS, PROHIBITIONS, AND  
PENALTIES FOR THE CITY OF PELHAM, 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 Pelham and the quality of life of its citizens by carrying pollutants into the receiving community waters; and

WHEREAS, the City of Pelham 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 Pelham, 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 ALS000003 from the Alabama Department of Environmental Management and all other areas of the City of Pelham.

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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 Pelham to obtain a National Pollutant Discharge Elimination System (NPDES) permit for storm water discharges from the Municipal Separate Storm Sewer System (MS4), effective October 1, 1995. 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 Pelham and the short-term and long-term public health, safety, and general welfare of the citizens of the City of Pelham 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 Pelham. 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 Pelham 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 Pelham 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 Pelham or the waters into which the City of Pelham Municipal Separate Storm Sewer System outfalls flow.

“City” shall mean the City of Pelham, 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 Pelham Environmental Office, or other agency or department designated and authorized by the City of Pelham, 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 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 Pelham pursuant to NPDES Permit ALS000003 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 a City of Pelham Storm Water Discharge Permit on or before the dates set forth in the following schedule:

(1) Service stations, convenience stores with gasoline pumps, vehicular repair shops and vehicular parts repair shops by August 1, 1999;

(2) Industrial facilities by February 1, 2000.

All other existing commercial facilities located in the City of Pelham, and which do not have current NPDES storm water permits, are not required to apply for a City of Pelham 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 beginning March 31, 1999. Completed application forms are to be returned to the Manager by the dates set forth in the above schedule. 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 Pelham 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 Pelham 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, on or before March 31, 1999. 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 on or before March 31, 1999.
- (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 Pelham 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 Pelham, and which do not require an NPDES storm water permit, are not required to apply for a Shelby County 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 beginning March 31, 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 Pelham 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 Pelham 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 Manger. 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 Pelham 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 Pelham 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, and which are not required to have an NPDES permit issued by ADEM authorizing the discharge of storm water will require a City of Pelham 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 less than five acres are 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 Pelham 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 Pelham 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 Pelham 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 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) 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.

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

No land disturbing activity shall be conducted within the City of Pelham 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 gunniting. 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 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) All land disturbance and construction activities which are larger than five acres in size or that are a part of a larger development or project that is, or will eventually be, larger than five acres in size require an NPDES permit issued by ADEM authorizing the discharge of storm water. If an NPDES permit is required, a copy of the Notice of Intent (NOI) shall be submitted to the Manager prior to the land disturbance or construction. 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.

Sec. 01-022. Permit application fees.

Each application for the issuance of a City of Pelham 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 Pelham Storm Water Discharge Permit shall be stored in the office of the designated contact person and at the permitted site or facility and shall be made available for review at any time by the Manager, or his or her representative.

Sec. 01-029. Transfer of permit.

A City of Pelham 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 Pelham 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 I 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, including the possibility of fine and civil penalty."

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 Pelham 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 to 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.

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;

- (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) animals carcasses or animal fecal waste;
- (9) sewage dumping or dumping of sewage sludge;
- (10) dredged or spoil material;
- (11) solid or chemical waste; 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 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 and (3) 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 this section.

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, excluding NPDES Permit ALS000003, 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 County's jurisdiction.
  - (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 against NPDES permit holders until such time that the permit holder is in continuing substantial violation of its NPDES permit and ADEM has failed to respond in a timely manner.
  - (4) At this time the NPDES permit holder will be subject to the terms and penalties of this ordinance.
- (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.
- (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 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 Pelham 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 ten (10) days 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.
- (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 Pelham 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 Pelham 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 Storm Water Regulations Board within the time specified by such notice; or
- (d) violate any lawful order of the Storm Water Regulations Board 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 (\$5000.00) 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 Storm Water Regulations Board;  
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 Storm Water Regulations Board 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 Storm Water Regulations Board 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 Storm Water Regulations Board, within the time allowed by this ordinance; or
  - (4) violates any lawful order of the Storm Water Regulations Board 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 Pelham, 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 Storm Water Regulations Board.

**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 Pelham for the administration of its storm water management programs.

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

## DIVISION 7. STORM WATER REGULATIONS BOARD

### Sec. 01-059. Established.

There is hereby established a Board of five (5) members to be known as the "Storm Water Regulations Board."

### Sec. 01-060. Composition; terms; filling vacancies.

The five (5) members of this board shall be appointed by the City Council of the City of Pelham for terms of four (4) years. All members shall serve until their successor is appointed and all members shall serve at the pleasure of the City Council. In the event of a vacancy, the City Council shall appoint a member to fill the unexpired term. The Board shall select its own chairman, vice-chairman and secretary. The members shall serve without compensation, are eligible for reimbursement of their actual expenses incurred in attending meetings of the Board and the performance of any duties as members of the Board as are properly documented and authorized by Law.

### Sec. 01-061. General duties of the Board.

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

- (a) To recommend from time to time to the City Council that it amend or modify 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 Pelham 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 Pelham and to obtain such information or other assistance as the Board might need;
- (f) The Board, acting through its chairman, 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 Board; and

- (g) The chairman, vice-chairman or chairman pro tem shall be authorized to administer oaths to those persons giving testimony before the Board.

Sec. 01-062. Variances.

- (a) The Board 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 if 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 Board action at the next regularly scheduled meeting or at a special meeting called at the discretion of the chairman.

Sec. 01-063. Meetings; quorum.

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

Sec. 01-064. Hearing Procedure; judicial review.

- (a) When to be held: The Storm Water Regulations Board 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 Board shall make a record of such hearing, but the same need not be a verbatim record. Any party coming before the

Board 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 Board as herein provided, and in such event the parties seeking such judicial review shall pay for the transcription and provide the Board with the original of the transcript so that it may be certified to the court.

- (c) Subpoenas: The chairman may issue 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 chairman 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 chairman, 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 chairman shall issue 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 chairman 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 Board may desire to call. Rebuttal witnesses shall be called in the same order. The chairman 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 Board. The Board, the Manager, or his or her representative, and all parties shall have the right to examine any witness. The Board shall not be bound by or limited to rules of evidence applicable to legal proceedings.
- (f) Appeal to Board of Manager's order: Any person aggrieved by any order or determination of the Manager may appeal said order or determination to the Board and have such order or determination reviewed by the Board under the provisions of this section. A written notice of appeal shall be filed with the Manager and with the chairman, 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 Board may be called by the chairman upon the filing of such appeal, and the Board may, in its discretion, suspend the operation of the order or determination of the Manager until such time as the Board has acted upon the appeal.
- (g) Absence of chairman: The vice-chairman or the chairman pro tem shall possess all

the authority delegated to the chairman by this section when acting in his or her absence or in his or her stead.

- (h) Review of Board's decision: Any person aggrieved by any final order of determination of the Board hereunder may within fifteen (15) days thereafter appeal therefrom to the Circuit Court of Shelby County or other court within Shelby County having jurisdiction by filing with the Board a written notice of appeal specifying the judgment or decision from which appeal is taken. In case of such appeal, the Board 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 ~~de~~ *de* novo.

**STORM WATER MANAGEMENT PROGRAM PLAN**  
**City of Pelham MS4**

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**APPENDIX 2**

City of Pelham Subdivision Regulations

CITY OF PELHAM

# SUBDIVISION REGULATIONS

UPDATED JULY 8, 2021



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# ARTICLE 1

# GENERAL PROVISIONS

## SECTION 1.01 AUTHORITY

Under the provisions of Section 11-52-31 of The 1975 Code of Alabama, which provisions are hereby made a part thereof, these following regulations governing the Subdivision of land are hereby adopted by the Planning Commission, City of Pelham, Alabama at its regular meeting on March 8, 2018. A copy of these regulations shall be certified to the Probate Judge of Shelby County, Alabama and the the Clerk of the City of Pelham, 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 Pelham, Alabama, as now or hereafter established and within such territory outside the corporate limits of the City of Pelham, Alabama as the Planning Commission shall now and hereafter have within its jurisdiction.

## SECTION 1.03 PURPOSE

The purpose and intent of these regulations is to establish objective standards for public improvements and subdivision of land within the city. These regulations shall be applied is such a manner as to accomplish the following purposes:

- (a) Future Growth. To guide the future growth and development of land within the subdivision jurisdiction in accordance with the Comprehensive Plan.
- (b) Health and Safety. To provide for adequate light, air, and privacy; to secure safety from fire, flood, and other danger; and to prevent the overcrowding of land and undue congestion of population.
- (c) Social and Economic Stability. To encourage an orderly and efficient development pattern in order to protect the consistent character, and to provide the social and economic stability of all parts of the area within the subdivision jurisdiction.
- (d) Consistency of Development. To harmoniously relate the development of the various tracts of land of the existing community and facilitate the future development of adjoining tracts.
- (e) Land Uses. To protect and conserve the value of land and the value of buildings and improvements on the land; and, through subdivision design, to minimize conflicts among the uses of land and buildings.
- (f) Public Services and Facilities. To encourage residential development where public services and community facilities are available or will be available when the subdivision is ready for occupancy.
- (g) Circulation. To provide an efficient relationship between development and the circulation of traffic, with an emphasis on connectivity.

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(h) Environment. To prevent the pollution of air, streams, and ponds; to assure the adequacy of drainage facilities; to safeguard the water table; and to encourage the wise use and management of natural resources in order to preserve the integrity, stability, and beauty of the community and the value of the land.

(i) Open Space. To provide open space through efficient design and layout of subdivision; to encourage the setting aside as open space land that is designated as being permanently undeveloped and used for recreation, conservation, or preservation.

## SECTION 1.04 POLICY

It is hereby declared to be the policy of the City of Pelham, Alabama to consider the subdivision of land and the subsequent development of the subdivided land as subject to the control and regulation of the Pelham Planning Commission pursuant to the authority granted to the City by Code of Alabama 1975, 11-52-30 et seq.

## SECTION 1.05 CONFLICTING PROVISIONS

These regulations are not intended to interfere with, abrogate, or annul any other ordinance, rule, regulation, statute, or other provision of law. Whenever any provision of these regulations imposes restrictions different from those imposed by any other provision or law, whichever provisions are the more restrictive or impose higher standards shall prevail.

## SECTION 1.06 SEPARABILITY AND SEVERABILITY

The provisions of these regulations are severable. Should any article, section, subsection, or provision of these regulations be declared by a court of competent jurisdiction to be invalid or unconstitutional, such decision shall not affect 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 1.07 MINIMUM REQUIREMENTS

These regulations shall be viewed solely as minimum requirements to be followed by the subdivider. Because of exceptional and unique conditions of topography, location, shape, size, drainage, geotechnical, or other physical features of the proposed subdivision, minimum standards specified herein would not reasonably protect or provide for public health, safety, or welfare. Therefore, increased measures may be required by the Planning Commission and City prior to improvements being acceptable to the City of Pelham.

## SECTION 1.08 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.

# ARTICLE 1

## SECTION 1.09 PENALTY

A penalty of \$100 per lot shall be paid by anyone who subdivides property and conveys lots therefrom without first obtaining approval and having recorded the plat of such subdivision as is herein provided.

## SECTION 1.10 DEFINITIONS

Abut, Adjacent, Adjoin or Contiguous. To physically touch or border upon or to share a common border with or be separated from the common border by an easement, right-of-way, railroad; or body of water.

Alley. A thoroughfare either used or shown on any recorded description of the subject parcel(s) which is not more than thirty (30) feet wide and which affords only a secondary means of access to abutting property.

Applicant. One (1) individual, entity, or agency that is legally authorized, as the owner of land proposed to be subdivided or a person designated in writing by the legal owner as his or her representative, to submit subdivision plats for review and apply for any form of subdivision approval or waiver.

Buffer. A strip of land that is retained for the purpose of providing a means of screening or separating incompatible land uses, promoting visual harmony, reducing noise, diverting emissions, reducing the effects of adjacent lighting, restricting passage, and enhancing the natural environment, thereby providing for a compatible mix of otherwise conflicting uses. Buffers may consist of existing or planted trees, shrubs or vegetation, fences, walls, or earth berms.

Building. Any structure enclosed on all sides having a roof supported by columns or walls designed or built for the support, enclosure, shelter, or protection of persons, animals, or property of any kind.

Building Area. That portion of a lot occupied by the principal building, including porches, carports, accessory structures, and other structures.

Building Line. A line showing the nearest distance to the property line or lines that is permissible to build a structure either in compliance with this ordinance or in following a plat, deed, or private contract or covenant. The outermost projection of the extreme overall dimensions of a building as staked on the ground, including all area covered by any horizontal projection or any vertical projection to the ground of overhang of walls, or of the roof or any other part of a structure which is nearest to the property line, except that open steps, terraces, and patios may be excluded.

City Council. The chief legislative body of the City of Pelham, Alabama.

City Engineer. The duly designated Engineer of the City of Pelham, Alabama.

# ARTICLE 1

Common Open Space. Any greenbelt, park, lake, river, or recreational development or area which is owned in common or private, devoid of any buildings and other physical structures, except where accessory to the provision of recreation opportunities, and which is developed, located, and/or maintained to provide relatively permanent recreational opportunities. Common open space includes undisturbed natural areas, wildlife habitat, garden areas, nature trails, viewing areas, and other areas designed for passive enjoyment, but also including improved parks, athletic fields, playgrounds, swim & tennis facilities, or other like areas designed and intended for active pursuits. Common open space may be made available to the general public or may be restricted to use for a homeowner or business association membership or segment thereof. Common open space dedicated in fee to the City or other governmental agency to be responsible for the operation and maintenance, shall not be for the exclusive use of the development.

Comprehensive Plan. The official public document prepared in accordance with Section 11-52-8 of the Code of Alabama, as amended, consisting of maps, charts, and textual material that constitutes a policy guide to decisions about the physical and social development of the City of Pelham.

Construct. Construct shall include build, erect, reconstruction, alteration, moved upon or any physical operations on the premises required for the building, principal structure, sign or accessory use. This definition shall include excavations, earthwork, fill, drainage work, utilities installations, and other work as it relates to the construction or use of a building, principal structure, sign or accessory use.

Covenant. A written agreement between two or more parties for the performance of some action. When used in relation to property or real estate, it is generally an agreement executed between the buyer and seller of such real estate, and should be enforced by private landowners, and not the municipality, unless the proposed use violates the zoning ordinance. This tenn shall also include deed restrictions.

Cul-de-Sac. The dead-end street terminated by a vehicle turnaround area having a minimum pavement radius of 40 feet, with a minimum radius of 50 feet to accommodate school buses or other large vehicles.

Curb or Curb Line. The inside vertical face of a masonry curb, the centerline of a valley gutter, or the edge of the pavement where no curb or gutters exist.

Dedication. The deliberate assignation of land by its owners for any general or public uses, reserving to himself no other right than such as are compatible with the full exercise and enjoyment of the public uses to which the property has been devoted.

Density. The minimum required lot area per dwelling unit or the maximum number of dwelling units per acre of site area.

# ARTICLE 1

Development. The division of a parcel of land into two or more parcels; the construction, reconstruction, conversion, alteration, relocations, or enlargement of a structure; any mining, dredging, filling, grading, paving, excavation, drilling, or disturbance of land and any use or extension of the use of the land.

Easement. That portion of land or property reserved or conveyed for present or future use by a person or agency other than the legal fee owner(s) of the property. The easement shall be permitted to be for use under, on, or above said lot or lots. No easement shall be recognized under these regulations which has not been created through a valid legal instrument and recorded in the Office of the Judge of Probate of Shelby County, Alabama, established through continuous historic use, or created by court order.

Earthwork. The breaking of ground, except common gardening and ground care.

Engineer. A Professional Engineer and registered by the State of Alabama Board of Registration for Professional Engineers and Land Surveyors.

Erosion. The wearing away of the ground surface as a result of the movement of wind, water, and/or ice.

Erosion Control. Measures and actions which are to be taken to control potential erosion and sedimentation problems.

Final Plat. The completed subdivision plat in form for approval and recording.

Governing Body. The Mayor and City Council of the City of Pelham, Alabama.

Grade. The slope of land or a built feature such as a street or lot.

Half-Street. A street that does not meet the minimum right-of-way widths set forth in these regulations.

Hardship. An unusual situation on the part of an individual property owner which will not permit him to enjoy the full utilization of his property which is given to others within the city. A hardship exists only when it is not self-created, or when it is not economic in nature.

Health Department. The Shelby County Department of Health and the State of Alabama Health Department.

Jurisdiction. As used in these regulations, jurisdiction is the corporate limits of the political subdivision known as the City of Pelham, which adopts these regulations for administrative purposes within its sphere of authority, and to also include any tracts of land subsequently annexed into the corporate limits.

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.

# ARTICLE 1

Monument. A permanent object serving to indicate a limit to or mark a boundary.

Performance Assurance. A legally binding agreement with the city by which a developer assures the construction of improvements required by these regulations.

Performance Guarantee. Financial security filed by the developer with the City Clerk to assure the construction of all required improvements at a specified time in the future.

Planning Commission. The City of Pelham Planning Commission.

Plot Plan. A plat of a lot, drawn to scale and certified as to its accuracy by a surveyor who is licensed by, and registered with, the State of Alabama as a surveyor, showing the actual measurements, the size and location of any existing buildings or structures, or proposed buildings or structures, along with any easements and building setbacks, and the location of the lot in relation to abutting streets or rights-of-way, and similar information. The proposed structures are staked out by said registered land surveyor or an employee under his direct supervision.

Preliminary Plat. A tentative plat of a proposed subdivision for presentation to the Planning Commission for its consideration.

Probate Judge. The Judge of Probate for Shelby County, Alabama.

Right-of-Way. A strip of land used or intended to be used for passage of the general public, and occupied or intended to be occupied by a street, road, bicycle path, crosswalk, utilities, railroad, or similar facility; and dedicated to the City of Pelham in fee simple, or by other legal means such as prescription.

Roadway. That portion of a public thoroughfare or right-of-way intended for use by vehicles.

Setback. The required minimum distance between a structure and the front, side, or rear lot line.

Sidewalk. The improved portion of a public right-of-way that is intended for use by pedestrians or other improved area designated for pedestrian use.

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.

# ARTICLE 1

Subdivider or Applicant. Any individual, firm, association, syndicate, copartnership, corporation, trust or any other legal entity commencing proceedings under these regulations to effect a subdivision of land hereunder for himself or for another.

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, of lease, or of building development. It includes resubdivision and, when appropriate to the context, relates to the process of subdividing or to the land or territory subdivided.

Surveyor. A land surveyor, who is registered by the State of Alabama Board of Registration for Professional Engineers and Land Surveyors.

Zoning Ordinance. The official zoning ordinance of the City of Pelham, Alabama.

# 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, 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 six copies of the preliminary plat and construction plans, and six (6) copies of the vicinity sketch, to the office of the Pelham Planning Commission at least twenty-five (25) calendar days prior to the regular scheduled meeting of the Planning Commission.
- (c) It is mandatory that the Subdivider and/or his Engineer conference with the City Engineer early or prior to the design effort.
- (d) The Subdivider shall submit with the plans a completed copy of the Preliminary Plat Requirements Checklist included in Appendix A. Each item shall be checked as either "P" for provided, "D" for disputed, or "NIA" for not applicable. If "D" is checked, provide all necessary documentation to support this.
- (e) The Planning Commission will not review plans unless all required information is submitted to the Planning Commission for consideration.

## 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 five hundred dollars (\$500.00) plus ten dollars (\$10.00) per lot shall be paid to the Planning Commission by the subdivider at the time of filing the application, together with the cost of giving legal notice.
- (b) When application is made for approval of a subdivision under the provisions of Article II, Section 2.09, a final plat fee of one hundred dollars (\$ 100.00) plus twenty five dollars (\$25.00) per lot 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

# ARTICLE 2

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. One (1) copy of the preliminary plat as acted upon by the Planning Commission shall be retained in its office, and one (1) copy returned to the subdivider.

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, following the approval of the construction plans and all necessary information as required by the City Engineer as provided in Article II, Section 2.05(a), and the issuance of a land disturbance permit as provided in Article II, Section 2.05 (c).

## 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 II, 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 the City of Pelham. All testing shall be the responsibility of the subdivider and shall be done by an approved Testing Laboratory.

(c) A land disturbance permit will be issued following the approval of the preliminary plat and the approval of the construction plans as provided in Article II, Section 2.05(a), and Chapter to, Article V, Division 3 of the Pelham Code, including an erosion control plan. It will be permitted to utilize an ALDOT detail for installation of silt fence to include a buffer between the road and the silt fence. If the disturbed area of the subdivision exceeds the minimum acreage requirement by the Alabama Department of Environmental Management (ADEM), a National Pollution Discharge Elimination System (NPDES) permit issued by the ADEM will also be required prior to the issuance of a land disturbance permit by the City of Pelham. The erosion control measures shall be in place before actual construction begins.

(d) Grading and Clearing - No lot shall be graded or cleared, nor shall the earth contained in the lot be altered before appropriate permits concerning grading and sedimentation control have been issued by the Engineering Department. In addition, if a permit is required by the Alabama Department of Environmental Management, evidence of this permit must be provided to the City of Pelham, along with any other necessary drawings, stormwater calculations or other documents, prior to obtaining approval from the Engineering Department and before any work begins on the site. All disturbed ground left inactive for fourteen (14) days shall be stabilized by seeding, hydroseeding, sodding, or landscaping.

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## SECTION 2.06 FINAL PLAT AND EXECUTION

- (a) The subdivider shall file the final plat and six (6) copies thereof with the Pelham Planning Commission at least fifteen (15) calendar 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.
- (c) The Subdivider shall submit with the plans a completed copy of the Final Plat Requirements Checklist included in Appendix B. Each item shall be checked as either "P" for provided, "D" for disputed, or "N/A" for not applicable. If "D" is checked, provide all necessary documentation to support this.

## SECTION 2.07 APPROVAL OF FINAL PLAT

- (a) Approval or disapproval of the final plat shall take place within thirty (30) days after the date of submission unless the subdivider agrees to an extension of that time. If the final plat is disapproved, the grounds for refusal shall be stated in the records of the Planning Commission. The action of the Planning Commission shall be shown on the final plat with the date of action shown over the signature of the person authorized by the Planning Commission to sign such plats.
- (b) Approval of the final plat carries with it the condition that: (1) all required improvements have been satisfactorily installed and completed by the subdivider, or: (2) a bond provided in accordance with Article V of these regulations, before such final plat is signed as approved by the Planning Commission.

## 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 one hundred fifty dollars (\$150.00) plus twenty-five dollars (\$25.00) per lot in the subdivision to partially defray the expense of investigating, hearing and acting upon the final plat, together with the cost of giving legal notice.
- (b) The final plat shall be filed for record in the office of the Probate Judge of Shelby County by the City of Pelham after Planning Commission approval is affixed thereupon and the developer has paid the City of Pelham all fees required by Shelby County for recording.
- (c) The Planning Commission will keep a record of the map book, volume and page numbers where the final plat is recorded. A copy of the recorded map will be provided to the developer, the land surveyor, the public works department, the building department, the engineering department, and the subdivision file.

## ARTICLE 2

### SECTION 2.09 SMALL SUBDIVISIONS, RESUBDIVISIONS, AND MINOR SUBDIVISIONS WITH NO PUBLIC IMPROVEMENTS

(a) Where a proposed subdivision is of such small size or contains so few lots as to present no engineering problems and few, if any planning problems, the Planning Commission may waive the filing of the preliminary plat, may require only six (6) copies of the final plat and six (6) copies of the vicinity sketch, and may approve the final plat within thirty days.

1. At the time of hearing or
2. At the time of filing without hearing for a minor subdivision.

(b) Where applications for subdivisions are filed under (a) above, such shall be filed together with all maps and other matter on or before noon, twenty-five (25) calendar 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 waive the requirements of Article II, Section 2.02 subsection (b) or any of the requirements of Article III and IV when it is deemed that the strict enforcement of these provisions will cause undue hardship in the subdivision of small parcels of land.

(d) Minor subdivisions, defined as containing 6 lots or less, with access to and meeting the City of Pelham Standards of Construction for Water and Sewer Systems for each of said lots fronting on a dedicated and paved road with no public improvements required: Application shall consist of a final plat for recording in Shelby County Probate office. The plat must be approved by the City Engineer, Planning Commission Chairman, Public Works Director, City Clerk, and Mayor after field reviews are completed and other applicable approvals have been obtained. At the discretion of the Planning Commission Chairman, the final plat may be approved:

1. At the time of hearing or
2. At the time of filing without hearing for a minor subdivision.

# ARTICLE 3

# PLAT REQUIREMENTS

Except as provided in Article II, 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, and name, registration number, stamp, and signature of the land 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 and listed on the plat. On grades of five percent (5%) or less, contours shall be shown at one (1) foot intervals. On grades between five percent (5%) and ten percent (10%), contours shall be shown at two (2) feet intervals. On grades greater than ten percent (10%), contours shall be shown at five (5) feet 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 Shelby County and the City of Pelham.
- (d) Rights-of-way and Easements: The location, dimensions, and purposes of all easements shall be shown. All street or 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 and within adjacent rights-of-way or easements, 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 be shown. Location: Quarter section, section, township, and range and shall be referenced to an accepted section corner based on the U.S. Government Survey of the area. A re-survey of a part of a subdivision may be referenced to the original subdivision.
- (k) Names and addresses of the owners of the property, including existing mortgages and subdivider.
- (l) Names and addresses of record owners of adjoining lots or parcels of land.
- (m) Certificate of, or letter from the State and/or County Health Department indicating their approval of the proposed water supply and sanitary facilities.

# ARTICLE 3

(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. The effective date, appropriate community panel number, and flood zones shall be included, with the flood plain and floodways clearly delineated with base flood elevations shown.

(o) Any other information that may be considered necessary by the Planning Commission for full and proper consideration of the proposed subdivision. Any irregularities shall be listed on the plat referencing inadequacies of water pressure, hydrant flow rates, sprinkler system requirements, ect. Language referencing Low Pressure Sewer requirements shall also be listed.

(p) Identify any common areas or other areas designated for the benefit of lot owners, including but not limited to the following: private parks, gardens and recreational facilities, environmental protection, valuable amenities, flood prevention (including detention or retention ponds), access to lakes or other water features, sewage treatment plants or lagoons, garages, parking lots or decks, storage or warehouses, identification and beautification, plazas, fountains, historic or aesthetic monuments, privacy buffers or screening, local traffic control, safety or security concerns, pedestrian walks, bikeways, equestrian paths or trails, nature conservation, and landmarks or historic preservation.

## 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 re-survey of a part of a subdivision, previously referenced to an accepted section corner, may be referenced to the original survey. AU 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 of 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 Pelham 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.

# ARTICLE 3

(e) Space for approval of the Pelham Planning Commission, the Mayor, the City Clerk, the Public Works Director, and the City Engineer.

(f) Where a street, alley, or easement for public utilities 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 or instrument 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 structures with their relation to the proposed subdivision shall accompany the final plat.

(h) The final plat shall be accompanied by three (3) copies of any protective covenants running with the land in form for recording. Reference to the recorded covenants affecting any common areas and the certificate of formation of the homeowners' association shall be made on the final plat. The certificate of formation and bylaws of the particular homeowners' association shall be reviewed in conjunction with approval of the final plat.

(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 PELHAM

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 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 re-survey of an existing recorded subdivisions, "showing the relation of the lands to the survey of \_\_\_\_\_ as recorded in the office of the Probate Judge of Shelby County in Map Book \_\_\_\_\_, Page \_\_\_\_ , " and that iron pins 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 land and that the same are not subject to any mortgage.

Date \_\_\_\_\_

(Execution and acknowledgement 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:

# ARTICLE 3

THE STATE OF ALABAMA  
CITY OF PELHAM

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 re-survey of an existing recorded subdivisions, "showing the relation of the lands to the survey of \_\_\_\_\_ as recorded in the office of the Probate Judge of Shelby County in Map Book \_\_\_\_\_, Page \_\_\_\_\_," and that iron pins 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 land and that the same are not subject to any mortgage, except a mortgagee or mortgages held by the following mortgagee(s): \_\_\_\_\_.

Date \_\_\_\_\_  
(Execution and acknowledgement by Surveyor, Owner(s) and Mortgagee(s).)

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

STATE OF ALABAMA  
CITY OF PELHAM

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 of whom are known to me, acknowledged 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 capacities) with full authority therefor.

Given under my hand and seal this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Notary Public

(Seal)

# ARTICLE 3

(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 RESOLVED BY the PELHAM 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 II, Section 2:09, for small subdivisions shall be an original drawing in ink, or cloth or film and shall be referenced to an accepted section corner based on the U.S. Government Survey of the area. A re-survey 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 Planning Commission, Public Works Director, Mayor, City Clerk, and City Engineer.

# ARTICLE 3

## SECTION 3.04 VACATION OF PUBLIC LANDS

The vacation of public ways is a function of the Pelham City Council; however, the effect of vacating public ways establishes new property lines of abutting properties within such vacated ways. The applicant shall, therefore, within a reasonable time after the passage of the resolution assenting to the vacation thereof by the Pelham City Council, submit a final plat indicating old property lines removed and establishing new ones, for the approval of the Planning Commission. Said final plat shall include the stamp, registration number, and signature of a professional land surveyor licensed in the State of Alabama.

# ARTICLE 4

# DESIGN STANDARDS

All proposed subdivisions shall conform to the Pelham Zoning Ordinance in those areas where the Zoning Ordinance is in effect. 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 this 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 or Public Works Director.

Any proposed deviation from the preliminary plat or construction plans shall first be submitted to the Planning Commission for approval prior to construction by a civil engineer and/or land surveyor licensed in the State of Alabama. This request must be in writing or in the form of a revised drawing with the stamp, registration number, signature, and date of the engineer and/or land surveyor.

## 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 accord with recommendations of the Planning Commission and shall not be less than sixty (60) feet except a cul-de-sac or short street may be less if adequate right-of-way is provided for public utilities. 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 (23) feet. A suitable hard surfaced permanent type of pavement shall be constructed as prescribed by the current specifications of the Alabama Department of Transportation and approved by the Planning Commission. A typical street section shall be provided. Greater roadway widths and/or concrete curbs may be required by the Planning Commission. Curb type and size shall be constructed as approved by the City Engineer.

## ARTICLE 4

(g) Sidewalks are required for public safety. Sidewalks shall be in accordance with the Zoning Ordinance, Article XXIV Supplementary Regulations and Modifications, Section 12, Sidewalks.

(1) Sidewalk locations shall be identified by location, width and ramp locations; and shall be constructed per the detail provided by the City Engineer. All driveways shall contain a sidewalk within the construction of the driveway per the detail provided by the City Engineer.

(2) Planned Unit Developments who have had approved overall layouts prior to the adoption of these regulations, shall prove a hardship prior to the approval of any preliminary plat within the PUD. If the developer can show a hardship, the will need approval from the Planning Commission prior to the approval of the preliminary plat of a particular subdivision phase within the PUD.

(3) If a developer cannot meet ADA requirements in regards to connectivity between subdivision phases, a hardship shall be proven and approved by the Planning Commission prior to the approval of the preliminary plat.

(4) Per the design standards, a grass strip will be required between the road and the sidewalk. The strip must be maintained as a grass strip and will not be allowed to be changed to any other material. It will be the responsibility of the homeowner to maintain the grass strip. Specifications for the maintenance of the grass strip shall be contained in all HOA covenants.

(5) Streetlights will be required for public safety by the Planning Commission. Streetlights shall be in accordance with applicable Zoning Ordinances and shall meet technical requirements recommended by the City Engineer and approved by the Planning Commission. All streetlight fixtures shall be of LED technology based on an approved list from Alabama Power. All lighting deviations from the approved list shall be approved by a variance granted from the Planning and Zoning Commission.

(6) 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 (125) feet between centerlines. Streets shall intersect as nearly at right angles as possible and in no case at an angle of less than seventy-five (75) degrees.

(7) Tangents of at least one hundred (100) feet on all curves will be required unless there are local conditions that would warrant a shorter tangent.

(8) 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. Dead-end streets will not be approved unless planning has been started on future development for extending the dead-end street at the time of plat recording in Probate Office.

# ARTICLE 4

(9) Streets shall not exceed one thousand (1000) feet in length without a cul-de-sac or street intersection and shall have a property line radius of not less than fifty (50) feet and an outside pavement radius of not less than forty (40) feet for cul-de-sacs at intersecting streets. All streets with no outlet shall terminate in cul-de-sacs designed to accommodate school buses or other large vehicles and shall have a property line radius of not less than sixty-six (66) feet and outside gutter radius of not less than fifty (50) feet.

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

(11) Substandard streets, whether existing city or county streets or private streets, providing access to any subdivision shall be upgraded to meet city specifications before approval of the final plat. All construction costs of upgrading such streets shall be the responsibility of the subdivider. 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.

(12) At least 48 hours prior to the installation of base material the City Engineer shall be contacted for a proof roll inspection of the subgrade. This test shall be performed by using a fully loaded truck with tandem axles and done to the satisfaction of the City Engineer.

## 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 (100) feet 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.

(d) Streets shall be graded to a minimum shoulder of seven (7) feet back of the curb line with a cross slope of one-half inch per foot. Traffic lanes shall be graded to a minimum cross slope of one-quarter inch per foot.

(e) In the design for street drainage the Developer's Engineer is to select combination curb and gutter or valley gutter. Combination curb and gutter shall be used where negative grade entering or within a circle exceeding 5%.

(f) Combination curb and gutter shall be constructed on grades over ten (10) percent.

# ARTICLE 4

## 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.

## 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 (20) feet.
- (b) Easements shall be not less than ten ( 10) feet in width except in cases of double tiered lots where a width of five (5) feet 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.
- (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 subdivider makes necessary provisions to eliminate such flooding.
- (c) All lots shall be graded in accordance with a grading plan approved 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 on to 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, either as surface runoff or an outfall from storm sewerage structures on to 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.
  - (5) All stormwater piping shall extend from the street to a point at the rear of the proposed house location.

# ARTICLE 4

(6) All other drainage ways shall be piped or concrete flumed throughout the subdivision at the discretion of the City Engineer.

(d) The following storm drainage design parameters shall also be observed:

a. Street inlets shall be the standard ALDOT Type 'S' inlet with manhole access.

b. Drainage facilities shall have a minimum design for a twenty-five year rainfall event, except for major drainageways. Design calculations shall be based on future probable development of the entire drainage area to be served or developed.

c. Drainage area and peak flow estimates shall be provided for each drainage facility, as well as profiles for all new storm sewers and open ditches, with outlet velocities.

d. Reinforced concrete pipe shall be required for all proposed storm sewers within easements and rights-of-way.

e. All storm sewer pipe shall have an inside diameter of eighteen inches or larger and shall be designed by a civil engineer licensed in the State of Alabama.

f. Typical sections of all ditches and swales shall be provided.

g. Calculations shall be included with the submittal of all stormwater designs.

h. An as-built survey of all storm drainage facilities with plan and profile information shall be provided prior to final plat approval.

(e) The following design parameters shall be observed in the design of detention facilities:

(1) The post-development runoff leaving a site shall not exceed the pre-development runoff.

(2) Detention facilities shall be designed for a twenty-five (25) year rainfall event. Each detention facility shall include an emergency outlet designed for the one hundred (100) year rainfall event.

(3) The minimum information submitted for a detention pond design shall be as follows:

i. Existing drainage area and peak flow to the facility.

ii. Proposed drainage area and peak flow to the facility.

iii. Inflow hydrograph.

iv. Outflow hydrograph.

v. Storage-elevation plot.

vi. Required storage volume.

vii. One hundred (100) year peak rainfall flow to the emergency spillway.

(4) One foot of freeboard shall be provided from the water surface elevation of resulting from the 100-year rainfall event to the top elevation of the dam.

(5) Detention ponds shall conform to the requirements of the City of Pelham Landscape Ordinance.

(6) Detention facilities shall be enclosed with a minimum four-foot high permanent fence. Gate(s) with locks shall be provided for maintenance access.

(7) A paved access shall be provided to the detention facility with an easement to the subdivision association for ingress and egress and maintenance of the detention pond.

## ARTICLE 4

- (f) Maintenance requirements for stormwater drainage and detention facilities are as follows:
- (1) Property owner(s) or his designated representative(s) shall submit a covenant setting forth their obligations to maintain the stormwater drainage and detention facilities. A note on the final plat shall be included stating "The maintenance of all stormwater drainage and detention facilities is the responsibility of the property owners within the subdivision and is not the responsibility of the City of Pelham." Such covenant shall be approved by the city engineer and city attorney before being recorded.
  - (2) The City of Pelham may enforce the provisions of the maintenance restrictions, and shall have the power and authority to cause the facility to be properly maintained.

# ARTICLE 4

## 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 (500) feet in length.
- (3) Width of blocks shall be not less than three hundred fifty (350) feet.
- (4) Blocks with lots having 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. Minimum zoning requirements, would tend to depreciate the value of 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. Lot line shall be substantially at right angles to the streets except on curves where they shall be radial. Where the distance between rear lot comers on double tiered lots would be less than ten (10) feet the radial lines shall be deviated so that the distance between rear lot corners will be a minimum of ten (10) feet.

# ARTICLE 4

## SECTION 4.07 UTILITIES

(a) All subdivisions shall be provided with sanitary sewage systems, which conform to the City of Pelham Standards of Construction for Water and Sewer Systems, as approved by the Planning Commission and the State and/or County Health Department.

(b) All subdivisions shall be provided with water distribution systems, which conform to the City of Pelham Standards of Construction for Water and Sewer Systems, as approved by the Planning Commission and 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 accord with the recommendations of the City of Pelham Fire Department.

(d) Utility poles shall be installed in alleys or rear lot easements unless otherwise permitted by the Planning Commission.

(e) 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.

(f) Water, gas, and 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.

(g) When necessary, easements for water and/or sewer main extensions shall be obtained and dedicated to the City. The developer shall provide, at no cost to the City, easements for extensions which cross private property between existing city water and/or sewer systems and the property being subdivided.

(h) Water and sewer improvements shall be constructed in accordance with the Standards for Construction of Water Systems and Sanitary Sewer Systems of the City of Pelham.

(i) Inspections, pressure tests, bacteriological reports, as-built utility drawings, and other tests which may be required by the City Engineer or his/her designee shall be provided to the City and approved for all utilities which are to become a part of the City's water and/or sanitary sewer system prior to approval of the final plat.

# ARTICLE 4

## SECTION 4.08 COMMON AREAS

(a) Subdivisions with common areas shall have relevant deed restrictions and protective covenants to assure the continuing usefulness, maintenance, operation and financing of the commonly held property. There shall also be an incorporated non-profit property homeowners' association formed in compliance with the Alabama Homeowners' Association Act. The homeowners' association shall be empowered to administer the terms of the covenants and manage all aspects of the common property, including all powers and duties provided in the Alabama Homeowners' Association Act.

(b) In addition to all other requirements of these subdivision regulations, the uses and all improvements on common areas shall be subject to Planning Commission approval of a site development plan. Applicant must submit three (3) copies of a detailed site development plan to scale, fully dimensioned that includes the following: all structures, all common areas, all easements, principal uses, streets and driveways, all traffic control devices, sidewalks, lighting, parking spaces, service areas, trash receptacles, curbs, drainage, and signs; indicating relations among buildings, structures, utilities, site improvements and open spaces.

# ARTICLE 4

## SECTION 4.09 DIGITAL AND HARD COPY SUBMITTAL REQUIREMENTS FOR AS-BUILT DRAWINGS

**AutoCAD requirements As-built utility and storm drainage drawings submittals shall show the following design and surveyed data.**

- (a) Sewer main diameter, length, material, slope are to be called out on the plan.
- (b) Sewer manhole and t-type cleanout rims and inverts are to be located horizontally and vertically. Design elevations (rims and inverts) in the profile shall be crossed through and the surveyed (rims and inverts) displayed in bold next to the crossed out values. Design grades shall be recalculated to show installed grades and shown in revision clouds. Changes in type and lengths of pipe must also be shown on final plat utility plan. Show all laterals.
- (c) Water main diameter, length, and material are to be called out in on final plat utility plan. Show all laterals.
- (d) Water fire hydrants, valves (main & hydrant), plugs, air-release and blow-off stations are to be located horizontally and vertically. Documented or known changes in types, lengths of pipe, location, or any other changes to the water system shall be shown on final plat utility plan.
- (e) Storm drainage pipe diameter, length, material, pipe invert and pipe outfall, and slope are to be called out on the final drainage and erosion plan.
- (f) Storm drainage manhole and t-type cleanout rims and inverts are to be located horizontally and vertically. Design elevations (rims and inverts) in the profile shall be crossed through and the surveyed (rims and inverts) displayed in bold next to the crossed out values. Design grades shall be recalculated to show installed grades and shown in revision clouds. Changes in type and lengths of pipe must also be shown on final plat drainage and erosion plan.
- (g) Storm drainage related catch basins, culverts, and outfalls are to be located horizontally and vertically.
- (h) A detailed cost estimate of construction of streets, curbs and gutters, sidewalks, drainage structures, sanitary sewer, water lines and appurtenances, which are to be dedicated and accepted shall be provided to the City by the developer.
- (i) Any other changes to the construction drawings should be noted and shown with a revision cloud.
- (j) Maximum error of as-built measurements shall be:
  - (1) Manhole inverts measure to 0.01 feet with maximum vertical error of 0.50 feet per 1,000 feet of horizontal traverse.
  - (2) Manhole rims: measure to 0.10 feet with maximum vertical error of 0.50 feet per 1,000 feet of horizontal traverse.
  - (3) Horizontal locations: measure to nearest 1.0 foot with allowable error of 0.5 feet per 1,000 feet of traverse.

## ARTICLE 4

(k) All surveyed points (as noted above) are to be shown on a separate layer in the electronic AutoCAD file.

(l) Record Drawing Submittal Packages shall include:

(1) One (1) hard paper copy (Xerox or Blue Line)

(2) One ( 1) electronic copy on a disk or USB thumb drive that includes:

i. PDF of Hard Paper Copy.

ii. AutoCAD drawing in NAO 1983 State Plane Alabama West FIPS 0102 (US Feet).

iii. All utilities and storm drainage shall be (Geo-referenced using the referenced coordinate system above.

iv. Each of the mentioned utility and drainage assets above will require a unique number as a key identifier associated with an X (Easting), Y (Northing), and Z (Elevation) in a separate displayed table in the drawing. See Exhibit # 1



# ARTICLE 5

## REQUIRED IMPROVEMENTS: BOND

### SECTION 5.01 IMPROVEMENTS

Prior to the approval of the final plat, the subdivider shall have installed, caused to be installed, or constructed (or posted bond as provided for in Section 5:02) all required improvements, including the following:

- (a) All streets shall have been graded in accordance with all dimensional and design requirements set out in Article IV and approved construction drawings.
- (b) Where provided on the preliminary plat, on both sides of each street there shall have been constructed a standard curb and gutter or valley gutter in accord with approved design drawings on file in the office of the City Engineer.
- (c) On all streets, including side streets and alleys, a suitable hard surfaced permanent type of pavement shall be installed, meeting the requirements of the City of Pelham. The developer's engineer shall design a pavement buildup based on the current Alabama Department of Transportation Standard Specifications for Highway Construction and the current Alabama Department of Transportation Standard and Special Drawings.
- (d) All required utilities and service connections shall have been constructed prior to installation of paving with all mains being extended and all lots having sufficient utility service stub-outs to ensure no subsequent cutting of pavement. All required utilities, except storm and sanitary sewer systems, shall be installed in the locations shown on the approved drawings.
- (e) All storm sewers, detention, and retention ponds shall have been constructed in accordance with the approved construction drawings and the preliminary plat, and subject to the provisions of Section 4:05 and City ordinances.
- (f) All street signs have been installed in accordance with the approved construction drawings and the preliminary plat.
- (g) All right-of-way grading and required public improvements, including necessary seeding, and removal of debris from all public areas, shall have been completed.
- (h) All record drawings and as-built drawings have been received and approved by the City.
- (i) All streetlights and traffic control signals or similar signage as approved by and at points designated by the City Engineer.
- (j) All required sidewalks shall have been constructed.

# ARTICLE 5

## 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 V, Section 5:01 need not immediately be met by the subdivider, the requirements may be modified by the execution of an agreement with the subdivider that such improvements shall be installed and constructed with a reasonable and specified length of time. Bond shall be required to insure the fulfillment of such agreement and shall be issued in favor of the City of Pelham by a letter of credit issued by a commercial bank authorized to do business in the State of Alabama, or by a surety company authorized to do business in the State of Alabama, or by cash in the form of United States currency.
- (b) Such bond shall be two hundred percent (200%) of the estimated cost of the improvements. The surety shall not be released from said bond except by a release in writing from the Pelham Planning Commission.
- (c) Prior to the City of Pelham releasing bonds and accepting maintenance of street rights-of-way, as-built certification from the design engineer shall be required that all sidewalks and pedestrian walkways are constructed in the subdivision, are constructed in compliance with the American with Disabilities Act. Sidewalks will be included with the final inspection of the each residence or building.
- (d) Prior to the City of Pelham releasing bonds and accepting maintenance of street rights-of-way, any off-road bike paths and/or pedestrian ways in common areas shall have been paved with a suitable hard surfaced material meeting the requirements of the City of Pelham.
- (e) Prior to the City of Pelham releasing bonds and accepting maintenance of street rights-of-way, streetlights and traffic control signals shall be installed.

## SECTION 5.03 MAINTENANCE BOND

The City Clerk shall secure from all developers a letter or statement in which said developer shall agree to maintain backfill to the level of finished grade and to maintain improvements located thereon or therein of any excavation or fill which has been made in connection with the installation of improvements and such letter or statement shall be binding on the developer for a period of one (1) year after the acceptance of such improvements by the Pelham City Council.

## SECTION 5.04 PERFORMANCE AGREEMENT

- (a) A performance agreement guaranteeing the installation, construction, and maintenance of required improvements shall be provided using the following agreement on the next page.

# SUBDIVISION REGULATIONS

## CITY OF PELHAM, ALABAMA

### Agreement

THIS AGREEMENT entered into and between \_\_\_\_\_ hereinafter called the Subdivider, and the City of Pelham, Alabama, hereinafter called the City, acting by and through the Pelham Planning Commission, hereinafter called the Planning Commission.

### WITNESSETH

WHEREAS, the Subdivider has submitted to the Planning Commission a final plat of a proposed development to be known as \_\_\_\_\_ and the Planning Commission has decided in accordance with Article V Section 5.02 of its Subdivision Regulations that, conditioned upon the agreement and bond of the Subdivider hereinafter set out and provided for, the requirements set out in Article V Section 5.02 need not be met prior to approval of said final plat.

NOW, THEREFORE, the Subdivider agrees with the City as hereinafter set forth in paragraphs 1, 2, 3, 4, and 5 hereof.

1. The Subdivider shall by \_\_\_\_\_ construct and install in or with respect to said proposed subdivision all improvements and utilities as defined by the minutes of the Planning Commission meeting dated \_\_\_\_\_, all in accord with the standards.

2. In the event the Subdivider shall fail in whole or in part to complete within said time (or such additional time, if any, as may be granted) the construction and installation provided for by paragraph 1 above, the City shall have the right at the cost and expense of the Subdivider to complete the same or cause the same to be completed, and the Subdivider hereby grants unto the City all rights necessary or appropriate to enable the City so to do.

3. In consideration of the premises and of the foregoing agreement of the Subdivider and of the furnishing of proper bond (the amount of which is to be determined by the City Engineer) to secure the faithful performance of such agreement and the actual construction and installation of the aforesaid improvements and utilities within the time specified, the Planning Commission agrees that it will not require installation or construction of the aforesaid improvements and utilities prior to approval of said plat, but that in lieu of the completion of such improvements and utilities prior to approval of said final plat it will accept the aforesaid agreement of the Subdivider and the aforesaid performance bond of the Subdivider and by its surety.

4. The consideration for this agreement by the Subdivider is to induce the City to grant final approval of said subdivision or plat prior to the completion of the work above described. Said Subdivider further recognizes that said consideration is full, complete, and sufficient as stated and further said Subdivider recognizes the authority of said City to enter into and execute this agreement and further recognize the authority of said City to require the improvements and work as set out in said Agreement.

ENTERED into this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_.

Attest: \_\_\_\_\_ Subdividers: \_\_\_\_\_

<b>Please Print Contact Information:</b>
<b>Responsible Party:</b> _____
<b>Address:</b> _____ _____
<b>Phone:</b> _____

\_\_\_\_\_  
(Print & sign name)

The undersigned individual(s) hereby guarantee the performance of this Contract by the Developer:

\_\_\_\_\_  
(Print & sign name)

Pelham Planning Commission  
By: \_\_\_\_\_  
Planning Commission Chairman

# ARTICLE 6 VARIANCES

## SECTION 6.01 MODIFICATIONS, VARIANCES, AND WAIVERS

(a) The City Engineer may waive technical requirements contained herein provided the Engineer and/or Surveyor of record provides a written request to the City Engineer fully documenting the reason for the request, justification of request, and other information as required provided the City Engineer concurs in the submittals calculation and request.

(b) If it be determined that strict compliance with these regulations would result in extraordinary hardship to the subdivider due to unusual topography, or other special conditions exist which warrant modifications, then the Planning Commission may modify, vary or waive such requirements 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 therefor 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 judgment, 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 subdivider shall be specially applied for, in the numerical order of these regulations, in writing by the subdivider and submitted to the Planning Commission. Any condition shown on the preliminary or final plat ( or on engineering plans or data called for by Article II, 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 a modification, variance, or waiver is made.

# ARTICLE 7 REVIEW

## SECTION 7.01 REVIEW

The Planning Commission will conduct a review of each submission to ascertain general confirmation to the Subdivision Regulations. A detailed engineering review of the plans will not be provided as it is the responsibility of the Design Engineer and Surveyor of record to assure that the City of Pelham requirements have been fully met and the design and surveys are professionally done. Any requirement of the City of Pelham that has not been met shall be specifically stated with supporting documentation provided.



**Appendix A**  
**Preliminary Plat Requirements Checklist**  
**(As required in Section 2.01 (d))**

This checklist is not intended to be an exhaustive list of all engineering requirements. It is the expectation of the Planning Commission that all submissions be in accordance with sound engineering judgment using modern engineering standards and practice as published in common engineering reference materials. During the review other requirements or data may become necessary and will be required at the Planning Commission's discretion.

P D N/A

- \_\_\_\_\_ Pre-application meeting help with City staff.
- \_\_\_\_\_ Pre design conference held.
- \_\_\_\_\_ Transmittal letter with all contact information.
- \_\_\_\_\_ Date and title provided on each sheet.
- \_\_\_\_\_ North arrow, graphic scale, and written scale provided on each drawing.
- \_\_\_\_\_ Name and registration of surveyor (signed and sealed) provided.
- \_\_\_\_\_ Name and registration of engineer (signed and sealed) provided.
- \_\_\_\_\_ Signed and sealed topography map provided. Map must meet Minimum Standards of Practice and Topography based on US Geological Survey or U.S. Coast and Geodetic Survey.
- \_\_\_\_\_ Coordinate system shall be based on State Planes Coordinates (Alabama West NAO 83).
- \_\_\_\_\_ Contours shown at either 1', 2' (if grades greater than 5% or less than 10%), or 5' (if greater than 10% ).
- \_\_\_\_\_ Names of all streets provided.
- \_\_\_\_\_ Easements shown with dimensions and purpose clearly stated.
- \_\_\_\_\_ Right of way width provided.
- \_\_\_\_\_ Pavement width provided.
- \_\_\_\_\_ Utilities shown with sizes indicated.
- \_\_\_\_\_ Lot lines with approximate dimensions provided.
- \_\_\_\_\_ Purpose of subdivision noted ( existing and proposed zoning noted).
- \_\_\_\_\_ Section Township and Range - Tie to quarter section provided.
- \_\_\_\_\_ Names, address, and zoning of owners adjoining provided.
- \_\_\_\_\_ Name of subdivider provided.
- \_\_\_\_\_ Letter from health department or sewer connection provided.
- \_\_\_\_\_ Drainage Area, Q, V, and C shown on all pipes for 25 year design storm (design storm noted).  
with the current fire code adopted by the City of Pelham.
- \_\_\_\_\_ Areas subject to inundation by storm drainage clearly shown and identified.
- \_\_\_\_\_ Vicinity Map showing all existing subdivisions, streets and tract lines of acreage parcels.
- \_\_\_\_\_ Complete grading plan provided (must also address individual lot grading). Thirty lots; or in accordance the existing substandard road to City Standards.
- \_\_\_\_\_ Profile of all streets, storm drains, open channels, and sanitary sewer drains provided.
- \_\_\_\_\_ Subdivision has provisions for at least two entrances to public roads, if the subdivision has more than area on each side of the street, and cross slopes.
- \_\_\_\_\_ Street provides for continuations to other streets.
- \_\_\_\_\_ If proposed street ties to an existing substandard road then the improvements shall include improving thickness.
- \_\_\_\_\_ No direct access to arterial streets.
- \_\_\_\_\_ Minimum 60' right of way. Parkways or boulevards may require additional right of way, and is subject to the City Engineer's review
- \_\_\_\_\_ Curb and gutter is either 18" (min.) or valley gutter 30" (min.).
- \_\_\_\_\_ Typical cross section shown on plans noting 23' pavement (min.), T (min.) substantially level shoulder
- \_\_\_\_\_ Pavement Section detail shown on plans. Proposed paving section meets Pelham minimum allowed

P D N/A

- \_\_\_ \_\_\_ \_\_\_ The minimum allowed pavement structure shall be 6" of Densely Graded Base (ALDOT 825-B), 2" of Bituminous Asphalt Binder Course (ALDOT 414), and 1" of Bituminous Asphalt Wearing Course (ALDOT 416) or 4" of Bituminous Asphalt Black Base (ALDOT 327) placed in 2 - 2" lifts and 2" of Bituminous Asphalt Wearing Course (ALDOT 416). Note: Superpave mixes will be allowed in lieu of the 414 and 416 mixes.
- \_\_\_ \_\_\_ \_\_\_ Posted speed limit to be 20 mph, in residential areas and 30 mph in commercial and industrial areas, except in special circumstances.
- \_\_\_ \_\_\_ \_\_\_ Design Speed is 1.25 times posted speed and indicated on plans.
- \_\_\_ \_\_\_ \_\_\_ All horizontal curves and vertical curves meet AASHTO recommendations.
- \_\_\_ \_\_\_ \_\_\_ Min. stopping sight, corner sight, and radius provided for in accordance with AASHTO recommendations.
- \_\_\_ \_\_\_ \_\_\_ Street grades are greater than 0.5% and less than 15%.
- \_\_\_ \_\_\_ \_\_\_ Grades approaching intersections (within 100' of intersection) are less than 5%. The 5% grade may be increased if there is sufficient sight distance and the supporting calculations are provided to the City Engineer and is subsequently approved by the Planning Commission.
- \_\_\_ \_\_\_ \_\_\_ Grades for cul-de-sacs are less than 5% for last 100' of paving.
- \_\_\_ \_\_\_ \_\_\_ Intersections are 125' apart and at 90 deg. angles (in no case less than 60).
- \_\_\_ \_\_\_ \_\_\_ Intersection curb radius called out (min. of 20').
- \_\_\_ \_\_\_ \_\_\_ All storm pipe in right of way is Class III RCP (or IV or V per American Concrete Pipe Association).
- \_\_\_ \_\_\_ \_\_\_ Design and Analysis for each individual ditch provided.
- \_\_\_ \_\_\_ \_\_\_ Min. slope for paved ditches is 0.33%, and 1% (min.) for unpaved.
- \_\_\_ \_\_\_ \_\_\_ Complete drainage way and tie slopes of ditches included in easement.
- \_\_\_ \_\_\_ \_\_\_ Guard rail provided in all locations that warrant.
- \_\_\_ \_\_\_ \_\_\_ Traffic control and signs provided.
- \_\_\_ \_\_\_ \_\_\_ Plans have provisions for providing saw-cut pavement edges of widened lanes and at connections to existing roadway.
- \_\_\_ \_\_\_ \_\_\_ Note provided that indicates no work in ALDOT or County right of ways until a permit is provided to the City.
- \_\_\_ \_\_\_ \_\_\_ Note provided that indicates that City Engineer be provided notification of work at least 48 hours prior to starting each phase of work.
- \_\_\_ \_\_\_ \_\_\_ Note provided that indicates that all permits or approvals by ADEM, ALDOT, FEMA, Corps of Engineers, and others as required will be obtained prior to disturbing areas under jurisdiction of such permits.
- \_\_\_ \_\_\_ \_\_\_ Note provided that indicates there shall be no land-disturbing activity until proof of ADEM NOR coverage provided to the Planning Commission and adequate erosion controls provided.
- \_\_\_ \_\_\_ \_\_\_ Detention and full detention calculations provided for 2, 10, and 25-year design storms, with 100 year overflow capacity.
- \_\_\_ \_\_\_ \_\_\_ All detention basins are surrounded by a security fence.
- \_\_\_ \_\_\_ \_\_\_ Outfalls only to established drainage channels.
- \_\_\_ \_\_\_ \_\_\_ Erosion Control Plan Provided.
- \_\_\_ \_\_\_ \_\_\_ Slopes steeper than 3:1 have staked sod or seeded and stabilized with adequate erosion control fabric (S 150 fabric or equal as min.)
- \_\_\_ \_\_\_ \_\_\_ All open channels that are a part of the overall drainage system are concrete-lined. Each shall be analyzed on an individual basis.
- \_\_\_ \_\_\_ \_\_\_ All open ditches have a 4' flat bottom (min.) and 3:1 (max) side slopes.
- \_\_\_ \_\_\_ \_\_\_ Downstream watercourse location not changed.
- \_\_\_ \_\_\_ \_\_\_ Pond outlet structure detail provided (include emergency overflow provisions).
- \_\_\_ \_\_\_ \_\_\_ Silt Fence detail provided.
- \_\_\_ \_\_\_ \_\_\_ Trench backfill detail (with materials and compaction requirements) provided for all trenches. Stone backfill when under pavement.
- \_\_\_ \_\_\_ \_\_\_ Anti-seep collar with stone bedding in pond outlet pipe provided.
- \_\_\_ \_\_\_ \_\_\_ Floodplain, floodway, and base flood elevations shown, or note provided stating that development is not in Special Flood Hazard Area or Zone. Floodplain not acceptable for development unless necessary provisions provided. Development in floodplain shall meet FEMA guidelines and recommendations and Ordinance 70-3.

P D N/A

- \_\_\_ \_\_\_ \_\_\_ Detailed drainage report provided (plans will not be reviewed without a complete drainage report).
- \_\_\_ \_\_\_ \_\_\_ Rational method is not allowed on drainage areas greater than 100 acres.
- \_\_\_ \_\_\_ \_\_\_ Pre and post times of concentration and calculations provided.
- \_\_\_ \_\_\_ \_\_\_ Weighted runoff coefficient calculations provided.
- \_\_\_ \_\_\_ \_\_\_ IDF and/or rainfall depths for 2, 10, 25, and 100 year design storms provided.
- \_\_\_ \_\_\_ \_\_\_ Pre, post, bypass, sub-basin and offsite drainage areas clearly noted.
- \_\_\_ \_\_\_ \_\_\_ Pre and post hydrographs provided.
- \_\_\_ \_\_\_ \_\_\_ Pond stage storage, outlet calculations, and pond routing provided.
- \_\_\_ \_\_\_ \_\_\_ Max detention pond inflow information provided.
- \_\_\_ \_\_\_ \_\_\_ Backwater calculations provided for the 25 year storm.
- \_\_\_ \_\_\_ \_\_\_ Outlet protection provided. Appropriately sized rip rap and/or energy dissipater provided.
- \_\_\_ \_\_\_ \_\_\_ Steps provided on all structures greater than 4' deep.
- \_\_\_ \_\_\_ \_\_\_ Concentric storm manhole detail provided.
- \_\_\_ \_\_\_ \_\_\_ Inlet detail with steps provided.
- \_\_\_ \_\_\_ \_\_\_ Headwall or flared end detail provided.
- \_\_\_ \_\_\_ \_\_\_ Manhole detail with steps provided.
- \_\_\_ \_\_\_ \_\_\_ All open cuts shown on plans, detail provided ( compacted stone backfill required).
- \_\_\_ \_\_\_ \_\_\_ Signed and sealed details provided for all retaining walls greater than 4'.

## Appendix B

### Final Plat Requirements Checklist (As required in Section 2.06 (c))

This checklist is not intended to be an exhaustive list of all engineering requirements. It is the expectation of the Planning Commission that all submissions be in accordance with sound engineering judgment using modern engineering standards and practice as published in common engineering reference materials. During the review other requirements or data may become necessary and will be required at the Planning Commission's discretion.

**P   D   N/A**

- |   |   |   |  |
|---|---|---|--|
| — | — | — | All corners shall be set prior to Final Plat submission.   |
| — | — | — | All easements shall be field located and indicated on the Final Plat.  |
| — | — | — | Final Plat shall specifically designate drainage easements that are a part of the subdivisions overall drainage system that may not at any time be fenced over.  |
| — | — | — | Final Plat shall specifically state that maintenance of all drainage easements shall be the lot owner's responsibility.  |
| — | — | — | Final Plat shall specifically state that all stormwater detention/retention structures and stormwater conveyances not contained within the City's right-of-way shall be the responsibility of the homeowner's association and/or individual property owner(s). |

The following notes are required on all final plats:

- (a) All easements on this map are for public utilities, sanitary sewers, storm sewers, storm ditches, and may be used for such purposes to serve the property both within and without the subdivision. The City of Pelham is not responsible for the maintenance of any easements shown on this plat outside of the dedicated public right-of-way.
- (b) Contractor and/or developer are responsible for providing building sites free of drainage problems.
- (c) No further subdivision of any parcel shown hereon shall be allowed without the prior approval of the Pelham Planning Commission.
- (d) This entire property is located in Flood Zone \_\_\_\_\_ as shown on the latest Flood Insurance Rate Maps (Panel Number \_\_\_\_\_), dated February 20, 2013 or the most current adopted maps.
- (e) Maintenance of detention ponds and all associated structures and appurtenances are the responsibility of the Homeowners Association.
- (f) Any construction or encroachment in a designated flood plain must comply with the City of Pelham Flood Damage Prevention Ordinance.
- (g) No encroachment, including structures or fill material, shall be placed within a designated flood plain unless and until a Flood Plain Development Permit has been submitted and approved by the Floodplain Administrator. All development within a designated flood plain must comply with the City of Pelham Flood Damage Prevention Ordinance.
- (h) The City of Pelham is not now, nor will be in the future, responsible for the maintenance of private roads or easements shown on this plat.

Include the following notes on the final plat if appropriate:

a) Sink Hole Note:

The subdivision shown hereon, including lots and streets, lies in an area where natural lime sinks have occurred. Lime sinks, as located and shown on the above plat were found but not repaired, unless otherwise noted on the plat. The City of Pelham, the Pelham City Engineer, the Pelham Planning Commission and the individual members thereof, and all other agents, Servants, or employees of Pelham, Alabama, make no representations whatsoever that the subdivision lots and streets are safe or suitable for residential construction, or for any other purposes whatsoever.

(b) Driveways shall be restricted to the locations as shown on this plat. Driveway access permit required prior to installation of driveway(s). Contact the City of Pelham at 620-6400 to obtain access permit.

(c) No lots shall have direct access to \_\_\_\_\_ Street or Road.

## Appendix C

### Standard Water and Sewer Details

Please refer to the standard water and sewer details on the following pages. These are provided to promote consistency in the preparation of construction drawings and to minimize the City's review time for various developments. These details can also be found on the City's website.

**STORM WATER MANAGEMENT PROGRAM PLAN**  
**City of Pelham MS4**

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**APPENDIX 3**

Major Outfall List

**City of Pelham MS4**  
**Storm Water Management Program**  
**Dry Weather Screening Outfall List**

OUTFALL	X/Y COORDINATE (UTM)	SITE DESCRIPTION AND/OR PIPE SIZE	LAND USE
S10-326	519807 / 3689022	36" RCP	C
S10-327	519600 / 3688671	42" RCP	C
S10-331	519797 / 3688003	Open Ditch	C
S10-348	519675 / 3688279	48" RCP	C
S10-352	522762 / 3688099	36" CMP	O
S10-387	519371 / 3688049	Open Ditch	C
S10-388	519396 / 3688134	Open Ditch	C
S10-396	519113 / 3688206	42" RCP	C
S11-012	518465 / 3689245	36" x 36" Box Culvert	C
S11-013	518226 / 3689071	36" CMP	R
S11-014	517845 / 3688610	Open Channel	R
S13-085	517380 / 3684549	Open Ditch	R
S13-087	517452 / 3684554	Open Ditch	R
S13-088	517396 / 3684510	Open Ditch	R
S13-092	518901 / 3684104	24" RCP	I
S13-093	518840 / 3683943	24" RCP	I
S13-094	518768 / 3683754	36" RCP	I
S13-095	516941 / 3684137	36" CMP	R
S13-096	516925 / 3684065	36" RCP	I
S13-098	516557 / 3683610	Open Ditch	I
S13-099	516580 / 3683560	Open Ditch	I
S13-100	517019/3682794	Open Ditch	R
S13-101	517108 / 3682843	Open Ditch	R
S13-102	517135/3682771	Open Ditch	R
S13-103	517074/3682749	Open Ditch	R
S13-116	517562/3682380	Open Ditch	C
S13-117	517639 / 3682358	Open Ditch	C
S13-118	517864/3682495	Open Ditch	C
S13-119	517985/3682484	Open Ditch	C
S13-120	518895 / 3682001	Open Ditch	C / R
S13-121	518954 / 3681979	Open Ditch	C
S13-122	518687 / 3681880	Open Ditch	U
S13-123	518764 / 3681864	Open Ditch	U
S13-124	518387 / 3681809	Open Ditch	I
S13-125	518764 / 3681798	Open Ditch	I
S13-126	517578/3681068	Open Ditch	C
S13-127	518573 / 3681233	Open Ditch	I
S13-128	518824 / 3681255	Open Ditch	I
S13-129	518764 / 3681178	Open Ditch	I
S13-130	518819 / 3681162	Open Ditch	I
S13-223	517406 / 3686128	54" CMP	R
S13-226	517733 / 3685997	36" CMP	R
S13-229	517680 / 3685972	18" RCP	R
S13-230	517858 / 3685910	36" CMP	R
S13-231	518014 / 3685903	Open Ditch	C

**City of Pelham MS4**  
**Storm Water Management Program**  
**Dry Weather Screening Outfall List**

OUTFALL	X/Y COORDINATE (UTM)	SITE DESCRIPTION AND/OR PIPE SIZE	LAND USE
S13-232	To Be Verified	Open Ditch	R,C
S13-233	517970 / 3685838	Open Ditch	R
S13-234	518036 / 3685899	Open Ditch	R,C
S13-240	517596 / 3685289	72" elliptical	R
S13-241	517553 / 3685146	36" elliptical	R
S13-242	518927 / 3685417	Open Ditch	R
S13-243	518866 / 3685396	Open Ditch	R
S13-244	518923 / 3685353	Open Ditch	R
S13-245	518852 / 3685310	Open Ditch	R
S13-274	517751 / 3687012	36" RCP	R
S13-278	518035 / 3686462	36" RCP	R
S13-279	518584 / 3686819	36" CMP	R
S13-284	518116 / 3686290	Open Ditch	R
S13-285	518176 / 3686356	Open Ditch	R
S13-286	518232 / 3686287	Open Ditch	R
S13-287	518185 / 3686253	Open Ditch	R
S13-289	517055 / 3687832	Open Ditch	
S13-295	517271 / 3686016	42" CMP	R
S13-296	517128 / 3685885	36" CMP	R
S13-298	517347 / 3685407	60" CMP	R
S13-301	516646 / 3684668	48" RCP	R
S13-320	517730/3683598	Open Ditch	C
S13-321	517624/3683160	Open Ditch	C
S13-331	517610/3681298	Open Ditch	R
S13-332	517389/3680668	Open Ditch	R
S13-343	517376 / 3687004	48" CMP (2)	C
S13-345	517859 / 3684847	52" CMP	C
S13-383	517399 / 3684365	18" & 24" RCP	I
S13-385	517539 / 3685246	Open Ditch	R
S13-389	To Be Verified	Open Ditch	R
S14-001	519330 / 3687695	Open Ditch	C
S14-002	519320 / 3687649	Open Ditch	C
S14-004	519713 / 3686645	Open Ditch	U
S14-005	519706 / 3686609	Open Ditch	U
S14-006	519657 / 3686636	Open Ditch	U
S14-007	519660 / 3686591	Open Ditch	U
S14-008	519992 / 3686360	Open Ditch	U
S14-009	520034 / 3686328	Open Ditch	U
S14-010	519976 / 3686313	Open Ditch	U
S14-011	520019 / 3686285	Open Ditch	U
S14-013	519623 / 3685327	Open Ditch	R
S14-014	519657 / 3685337	Open Ditch	R
S14-015	519648 / 3685291	Open Ditch	R
S14-016	513614 / 3685277	Open Ditch	R
S14-021	521973 / 3683255	Open Ditch	R

**City of Pelham MS4**  
**Storm Water Management Program**  
**Dry Weather Screening Outfall List**

OUTFALL	X/Y COORDINATE (UTM)	SITE DESCRIPTION AND/OR PIPE SIZE	LAND USE
S14-023	521998 / 3683154	Open Ditch	R
S14-024	522021 / 3683119	Open Ditch	R
S14-025	522053 / 3683140	Open Ditch	C
S14-026	521636 / 3683104	Open Ditch	R
S14-027	521739 / 3683048	Open Ditch	R
S14-028	521766 / 3683016	Open Ditch	R
S14-029	521711 / 3683028	Open Ditch	R
S14-030	521741 / 3682998	Open Ditch	R
S14-031	521757 / 3682980	Open Ditch	R
S14-032	521785 / 3692996	Open Ditch	R
S14-033	521780 / 3682947	Open Ditch	R
S14-034	521808 / 3682966	Open Ditch	R
S14-035	522048 / 3683060	Open Ditch, inferred	R
S14-036	522081 / 3682991	Open Ditch	R
S14-041	519408 / 3683395	Open Ditch	R
S14-042	519486 / 3683392	Open Ditch	R
S14-043	519399 / 3683343	Open Ditch	R
S14-044	519475 / 3683331	Open Ditch	R
S14-045	519324 / 368218	42" RCP	R
S14-046	519551 / 3683034	Open Ditch	R
S14-047	519235 / 3681753	Open Ditch	R
S14-048	519296 / 3681723	Manhole	R
S14-049	519672 / 3681713	Open Ditch	C
S14-063	528808 / 3687557	Open Ditch	R
S14-066	528838 / 3687513	Open Ditch	R
S14-069	528044 / 3686906	Open Ditch	R
S14-070	528079 / 3686934	Open Ditch	R
S14-071	522796 / 3683549	36" CMP	R
S14-075	527193 / 3685766	Open Ditch	R
S14-076	527229 / 3685725	Open Ditch	R
S14-078	520787 / 3682019	Open Ditch	R
S14-080	520794 / 3682007	Open Ditch	R
S14-082	527238 / 3685810	Open Ditch	O
S14-083	527568 / 3685761	Open Ditch	R
S14-120	519168 / 3687847	48" RCP	C
S14-126	521651 / 3683329	Open Ditch	R
S14-127	521772 / 5683132	Open Ditch	R
S14-128	521769 / 5683130	Open Ditch	R

**STORM WATER MANAGEMENT PROGRAM PLAN**  
**City of Pelham MS4**

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**APPENDIX 4**

Inspection & Field Data Sheets

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## Structural Controls Inspection

Site: \_\_\_\_\_ Owner: \_\_\_\_\_

Site Location: \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_ Inspection Team: \_\_\_\_\_

### Pond Inlets

	N/A	Yes	No
Inlet damaged or obstructed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sediment accumulation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Slope erosion?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trash accumulation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments: \_\_\_\_\_

### Pond Conditions

	N/A	Yes	No
Poor bank vegetation or ground cover?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Undesirable vegetative growth?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bank erosion?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sediment accumulation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Floating debris or trash accumulation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oily Sheen Present?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments: \_\_\_\_\_

### Outlet Structures

	N/A	Yes	No
Outlet structure obstructed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trash rack damaged or clogged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Damage to risers?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outfall channel flowing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Emergency spillway damaged or obstructed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments: \_\_\_\_\_

### Site Assessment

Overall Condition:  Acceptable  Unacceptable  
Maintenance Needed:  Yes  No

Comments: \_\_\_\_\_

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# City of Pelham Storm Water Management Program

## Dry-Weather Screening Data Sheet

Outfall number: \_\_\_\_\_

Date: \_\_\_/\_\_\_/\_\_\_

Inspection Team: \_\_\_\_\_

Time: \_\_\_\_\_ AM / PM

Site Description:  open channel  manhole  outfall  other \_\_\_\_\_

Dominant Watershed Land Uses:  industrial  commercial  residential  unknown  
 other \_\_\_\_\_

Location: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Flow Present:  No  Yes 1. width of water surface (ft): \_\_\_\_\_  
2. approximate depth of water (ft): \_\_\_\_\_  
3. approximate flow velocity (fps): \_\_\_\_\_  
flow rate (cfs) = 1x2x3 = \_\_\_\_\_

### Visual Observations:

Odor:  none  musty  sewage  rotten eggs  sour milk  other \_\_\_\_\_  
Color:  clear  red  yellow  brown  green  gray  other \_\_\_\_\_  
Clarity:  clear  cloudy  opaque  suspended solids  other \_\_\_\_\_  
Floatables:  none  oily sheen  garbage/sewer  other \_\_\_\_\_  
Deposits/Stains:  none  sediments  oily  other \_\_\_\_\_  
Vegetation Condition:  none  normal  excessive growth  inhibited growth  other \_\_\_\_\_  
Structural Condition:  normal  concrete cracking/spalling  metal corrosion  other \_\_\_\_\_  
Biological:  mosquito larvae  bacteria/algae  other \_\_\_\_\_

### Field Analysis:

water temperature (°F): \_\_\_\_\_  
pH \_\_\_\_\_ Method of Analysis: \_\_\_\_\_ (Strips/Meter)

Laboratory Sample Collected:  yes  no

### Lab Analysis:

E. Coli (colonies/100ml): \_\_\_\_\_ Potassium (mg/l): \_\_\_\_\_ NH<sub>3</sub>N (mg/l): \_\_\_\_\_  
Oil & Grease (mg/l): \_\_\_\_\_ MBAS (mg/l): \_\_\_\_\_ pH \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_

Data Sheet Filled Out By (signature): \_\_\_\_\_

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## Construction Site Inspection Form

Permittee Name: \_\_\_\_\_

Date: \_\_\_/\_\_\_/\_\_\_

Facility/Site Name: \_\_\_\_\_

Time: \_\_\_\_\_ AM / PM

Site Location: \_\_\_\_\_

Site Contact: \_\_\_\_\_ Phone #: \_\_\_\_\_ Email: \_\_\_\_\_

Does Site have ADEM NPDES Permit? Yes/No If yes, the permit # is

AL \_\_\_\_\_

Phase of Development: Initial Site Grading  Building and Construction  Punch List

### BMPs Applied

(check all that apply)

### Condition of BMPs

Good Fair Poor

Comments

\_\_ Construction Exit

\_\_ Silt Fence Barrier

\_\_ Storm Drain Inlet Protection

\_\_ Outlet Protection (Rip-rap apron, etc.)

\_\_ Sediment Basin

\_\_ Check Dams (Rip-rap or hay bale)

\_\_ Temporary Seeding/Mulching

\_\_ Permanent Seeding

\_\_ Groundskeeping (Litter control)

Yes No N/A

BMPs Installed in accordance with approved BMP Plans?

Concrete washout facilities provided and maintained?

All disturbed areas not actively under construction stabilized?

Comments/Follow Up Items: \_\_\_\_\_

Inspector: \_\_\_\_\_ Signature: \_\_\_\_\_ Photos Taken? Yes/No

Reason for Inspection: Routine Inspection  Complaint  Follow Up

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City of Pelham  
**STORM WATER DISCHARGE INSPECTION**  
For Industrial, Commercial, and Municipal Facilities  
(Ordinance 328-5-01-038)

Inspector: \_\_\_\_\_ Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_ Time: \_\_\_\_ AM / PM

Facility Name		
Facility Contact and Title		
Facility Street Address		
City	State	Zip
Phone Number	Fax Number	

Business License No. \_\_\_\_\_ Facility Size (acres) \_\_\_\_\_ (rounded to nearest tenth)

Provide a description of facility and the nature of work performed.


Provide a description of significant materials that are currently, or were formerly, treated, stored or disposed outside the facility or commercial establishment; materials management practices currently used to minimize contact of these materials with storm water runoff; and a description of any treatment the storm water receives prior to discharge.


Cleanup schedule for debris, material storage areas, garbage storage or disposal areas, or other areas that have the potential to pollute storm water.

Description of plan of instruction, to employees of all levels, in ways to prevent storm water pollution. Identify periodic dates for such training.

Deficiencies Noted/Action Items:

Attach site map showing existing buildings, parking, drives, type of each impervious surface, ditches, pipes, catch basins, drainage basin limits, area of facility, discharge points from the property or to Community Waters, and the name of the receiving waters.

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

Printed Name of Inspection Team Member	Title	
Signature		Date

Note that if the total aggregate capacity of aboveground oil storage containers is greater than 1,320 gallons or the total aggregate capacity of buried storage tanks is greater than 42,000 gallons, the facility may be required to have an SPCC plan according to the EPA.

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**City of Pelham Storm Water Management Program**  
Municipal Consultants, Inc.  
Wet Weather Screening – Field Data

**SAMPLING SITE**

- Cahaba Valley Creek Site (Police Firing Range)
- Buck Creek Site (Police Firing Range)
- Peavine Creek Site (Hwy 11)

Date: \_\_\_\_\_ Time: \_\_\_\_\_ Inspector(s): \_\_\_\_\_

**SAMPLE SITE DATA**

Ambient Temperature: \_\_\_\_\_ °F

Color:  Clear  Red  Yellow  Brown  Green  Gray  Other \_\_\_\_\_

Clarity:  Clear  Cloudy  Opaque  Turbid  Other \_\_\_\_\_

Flow:  Fast  Moderate  Slow  Stagnant  Other \_\_\_\_\_

Temperature: \_\_\_\_\_ Time: \_\_\_\_\_

pH Reading: \_\_\_\_\_ Time: \_\_\_\_\_

pH Method of Measurement: \_\_\_\_\_

Dissolved Oxygen Reading: \_\_\_\_\_ Time: \_\_\_\_\_

Water Level Reading (USGS): \_\_\_\_\_ Time: \_\_\_\_\_

**STORM EVENT DATA (to be completed by office staff)**

Rainfall Began (Time): \_\_\_\_\_

Rainfall Ended (Time): \_\_\_\_\_ Length of Storm (hr.): \_\_\_\_\_

Total Rainfall (in): \_\_\_\_\_

End of last rainfall event: Date: \_\_\_\_\_

Time: \_\_\_\_\_

Time since last rainfall (hr.) \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Data Sheet completed by (signature): \_\_\_\_\_

**STORM WATER MANAGEMENT PROGRAM PLAN**  
**City of Pelham MS4**

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**APPENDIX 5**

SOPs and Standard Documents for Program Elements

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**STORM WATER MANAGEMENT PROGRAM PLAN**  
**City of Pelham MS4**

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Illicit Discharge Detection and Elimination: A Guidance Manual for Program  
Development and Technical Assessments  
by  
the Center for Watershed Protection and Dr. Robert Pitt

A hard copy of this manual has not been included in an effort to conserve  
resources. This manual can be found at the following link:  
[https://www3.epa.gov/npdes/pubs/idde\\_manualwithappendices.pdf](https://www3.epa.gov/npdes/pubs/idde_manualwithappendices.pdf)

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Memorandum

To: Mayor Waters, Chief Ray, Chief Palmer, Eddy Jowers, Billy Crandall, Byron Woods, Andrew Golden

From: Jesse Jowers

Date: September 28, 2015

Subject: MS4 Stormwater – SOP for Detection of Illicit Discharges

The Pelham Municipal Separate Storm Sewer System (MS4) Program combines resources across multiple City Departments to create a cooperative effort to improve the quality of stormwater runoff within the areas of the City that drain to the Cahaba River. One component of the MS4 program is the elimination of illicit discharges. ADEM defines an illicit discharge as “any discharge to a MS4 that is not composed entirely of storm water except discharges pursuant to a NPDES permit.” In other words, any discharge that occurs that is not a result of rain or permitted by ADEM.

Since personnel from all departments are routinely working throughout all areas of the City, any assistance in detecting illicit discharges would be greatly appreciated. Please see the attached Standard Operating Procedure (SOP) that should be followed if a possible illicit discharge to the storm sewer system within the city limits of Pelham is detected. This procedure has been developed as required by the City’s MS4 Stormwater permit issued by the Alabama Department of Environmental Management (ADEM).

Please contact me if you have any questions or concerns regarding this.

Sincerely,

Handwritten signature of Jesse E. Jowers, Jr. in cursive script.

**Illicit Discharge Detection  
Standard Operating Procedure  
8/31/2015**

**Definition:** An **illicit discharge** is any discharge to the City's storm sewer system that is not composed entirely of storm water except discharges pursuant to a NPDES permit (see acceptable discharges listed below).

**Acceptable Discharges:**

1. Water line and fire hydrant flushing
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. Individual residential car washing
10. Flows from riparian habitats and wetlands
11. Dechlorinated swimming pool and hot tub discharges
12. Street wash water
13. Discharges from fire fighting activities

**What to do if an Illicit Discharge is suspected:**

1. Determine the source of flow (if possible)
2. If illicit discharge is still suspected or determined, notify the City Engineer
3. Document:
  - (1) Location
  - (2) Source, if determined
  - (3) Characteristics of flow (i.e. color, odor, estimated flow/volume)
  - (4) Name and date
  - (5) Take pictures of discharge
4. Please forward all documentation to the City Engineer.

**Note:**

1. Safety is always the highest priority. Never enter a confined space unless all confined space entry procedures are followed and you are authorized to do so by a confined space entry supervisor.
2. Do not enter private property without permission from supervisor and property owner.

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**STORM WATER MANAGEMENT PROGRAM PLAN**  
**City of Pelham MS4**

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Erosion Control, Sediment Control and Stormwater Management on Construction  
Sites and Urban Areas  
by  
the Alabama Soil and Water Conservation Committee

A hard copy of this manual has not been included in an effort to conserve  
resources. This manual can be found at the following link:  
<http://conservealabama.gov/resources/erosion-and-sediment-control/>

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# Land Disturbing Activity Permit

P.O. Box 1479, Pelham, Alabama 35124 | 205.620.6411  
permits@pelhamalabama.gov

This application must be completed for any project requiring land-disturbing activity

PROPERTY LOCATION PARCEL ID #: \_\_\_\_\_  
LEGAL DESCRIPTION LOT #: \_\_\_\_\_ BLOCK #: \_\_\_\_\_ SUBDIVISION: \_\_\_\_\_  
STREET ADDRESS: \_\_\_\_\_  
AREA OF PROPERTY: \_\_\_\_\_ (SF) IS PROPERTY IN FLOOD HAZARD AREA?  Yes  No

APPLICANT NAME: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_ PHONE NUMBER: \_\_\_\_\_  
EMAIL ADDRESS: \_\_\_\_\_

PROPERTY OWNER: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_ PHONE NUMBER: \_\_\_\_\_  
EMAIL ADDRESS: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_ PHONE NUMBER: \_\_\_\_\_  
EMAIL ADDRESS: \_\_\_\_\_

CITY OF PELHAM LICENSE #: \_\_\_\_\_ STATE OF ALABAMA LICENSE #: \_\_\_\_\_

## TYPE OF CONSTRUCTION

Single Family  Commercial  New Construction  Addition  Utility Installation  Demolition  
 Excavation (Fill/Cut)  Other \_\_\_\_\_

SITE WORK JOB VALUATION: \_\_\_\_\_

A plot plan, showing approximate limits of land disturbance must be attached. The nature, extent, and purpose of the land-disturbing activity, including the size of the area for which the permit shall be applicable, must be included. A description of specific Best Management Practices that will be used to control the discharge of stormwater 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 waters must be included.

LAND DISTURBING ACTIVITY PERMIT APPLICATION

*\*I certify, under penalty of law, this document and all attachments were prepared under my direction or supervision, and that I have personally examined, and I am familiar with, the information in this document and such attachments. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of the final and civil penalty.\* I fully understand the provisions of the City of Pelham Storm Water Management and Water Quality Controls Ordinance. If an erosion and sediment control plan is required for the project, I accept responsibility for carrying out the plan as submitted. I further grant the right of access onto this property, as described above, to the designated personnel of the City of Pelham for the purpose of inspecting and monitoring for compliance with the aforesaid ordinances.*

\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
DATE

NPDES Permit Issued by ADEM – Attach a copy of the NPDES permit issued by ADEM is applicable.  
Permit Application Fees (City of Pelham Ordinance No. 328, Section 01-022)  
Each application for the issuance of a City of Pelham Storm Water Discharge Permit for land disturbance and construction activities shall be accompanied by a non-refundable fee of \$250.00 plus \$15.00 per acre (\$15.00/acre).

\_\_\_\_\_  
OFFICE USE ONLY

PERMIT #: \_\_\_\_\_

DATE: \_\_\_\_\_

PERMIT FEE: \_\_\_\_\_

APPROVED BY: \_\_\_\_\_

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*City of Pelham*

"TYPICAL"  
EROSION CONTROL  
GENERAL NOTES

SEQUENCE OF EROSION CONTROL ACTIVITIES FOR CONSTRUCTION PROJECTS.

1. INSTALL SILT FENCES ALONG THE SIDE SLOPE BOUNDARIES OF THE PROPERTY.
2. PROTECT STORM DRAIN INLETS DOWNSTREAM OF CONSTRUCTION WITH HAY BARRIER AND/OR OTHER PROTECTIVE MEASURES.
3. CLEARING AND GRUBBING AS REQUIRED.
4. APPLY STONE TO DRIVE WAY TO STABILIZE ENTRANCE TO PROPERTY.
5. INSTALL SILT FENCE AROUND STOCKPILES.
6. CONSTRUCT PROJECT.
7. TEMPORARILY OR PERMANENTLY STABILIZE STRIPPED AREAS AND STOCKPILES WITHIN 14 DAYS OF LAST CONSTRUCTION ACTIVITY IN THAT AREA.
8. COMPLETE GRADING AND INSTALL PERMANENT SEEDING AND PLANTINGS.
9. COMPLETE FINAL PAVING FOR ROADS.
10. WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE, REMOVE SILT FENCE AND RESEED ANY BARE SPOTS OR WASHOUTS.

EROSION CONTROL NOTES.

1. EROSION CONTROL MEASURES ARE TO BE ACCOMPLISHED PRIOR TO ANY OTHER CONSTRUCTION ON THE JOB SITE AND MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
2. ALL CONSTRUCTION SHALL BE DONE IN A LOGICAL SEQUENCE SO TO MINIMIZE THE AREA OF EXPOSED SOIL AT ANY ONE TIME.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION SITE SAFETY.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS. NO WORK IS TO BEGIN UNTIL COPIES OF ALL REQUIRED PERMITS ARE ON SITE.
5. THE CONTRACTOR IS TO INSTALL ALL EROSION CONTROL DEVICES BEFORE ANY CONSTRUCTION BEGINS. SUCH DEVICES SHALL BE INSPECTED AFTER EVERY 0.50" OF RAINFALL AND BE REPAIRED AND MAINTAINED UNTIL ALL CONSTRUCTION IS COMPLETED.
6. ALL DISTURBED GROUND LEFT INACTIVE FOR 14 OR MORE DAYS SHALL BE STABILIZED BY SEEDING OR SODDING.
7. ANY SEDIMENT REACHING THE ROADWAY SHALL BE REMOVED BY STREET CLEANING, AND NOT BY FLUSHING, BEFORE THE END OF EACH DAY.
8. ALL DISTURBED AREAS SHALL BE SEEDED & MULCHED AS PER AL. D.O.T. STANDARDS AND SPECIFICATIONS OR LANDSCAPED.
9. PRIOR TO FINAL INSPECTION, SILT FENCING OR FILLED SOCK BAGS WILL NEED TO BE PLACED AT LOCATIONS BASED ON A PRELIMINARY WALK THROUGH BY THE CITY OF PELHAM.
10. CONTRACTOR SHALL OBTAIN A LAND DISTURBANCE PERMIT FROM THE CITY OF PELHAM PRIOR TO STARTING CONSTRUCTION.
11. ALL FEDERAL, LOCAL, ETC LAWS SHALL BE COMPLIED WITH BEFORE, DURING AND AFTER COMPLETION OF JOB.

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*City of Pelham*

I UNDERSTAND THAT ALL BEST MANAGEMENT PRACTICES WILL BE ENFORCED, WHICH INCLUDES SILT FENCES, HAY BALES AROUND THE LOT AND GRAVEL ON THE DRIVEWAY FOR ACCESS TO THE STRUCTURE. THE STREETS WILL BE KEPT CLEAN FROM SILT AND MUD AT ALL TIMES DURING THE CONSTRUCTION. I ALSO UNDERSTAND THAT NO INSPECTIONS WILL BE GIVEN UNTIL THE BEST MANAGEMENT PRACTICES ARE IN PLACE AND APPROVED BY EITHER THE BUILDING OFFICIAL OR THE BUILDING INSPECTOR.

---

(PLEASE SIGN)

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**Hazardous Materials SOP – Index**

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## **22.1 Introduction**

These procedures establish guidelines for response and operations of the Pelham Fire Department Hazardous Materials Personnel

The purpose of the Hazardous Materials Teams are to provide the City of Pelham and the local emergency service providers in Shelby County with a technically trained and specially equipped group of personnel to assist in the mitigation of emergencies involving hazardous materials.

Throughout the remainder of this procedure Hazardous Materials shall be referred to as HAZMAT.

Functions and responsibilities of the HAZMAT Teams will include the following:

- Development and analysis of technical information to assist the Local Incident Commander in decision – making.
- The use of specialized equipment and protective clothing to mitigate an incident.
- Supervise and coordinate HAZMAT Branch/Group operations under control of the Incident Commander.
- To provide support services to the Fire and EMS and Police services in the event of an incident involving materials of a hazardous nature.

## **22.2 Objectives**

22.2.1 The objective of the HAZMAT Team is to assist in mitigating or minimizing the effects of a hazardous material incident on the population, and to the property and environment of the City of Pelham by safely controlling, containing or neutralizing the hazardous material. This would, also, include notification of proper authorities for expedition of cleanup and returning scene to pre-incident conditions.

## **22.3 Team Structure**

The team is divided into the following levels of training: Operations Level, Technician Level, Specialist employee, Incident Commander (Team Leader)

22.3.1 Hazardous Materials Operations – Operations level employees are qualified to assist in dressing the Entry and Decontamination Teams, Operation of Apparatus to and from the scene, engagement in defensive HAZMAT operations, and other support functions as assigned. The HAZMAT Operations Level is required to participate with the HAZMAT Teams and qualification is attained through courses which meet the requirements of 29 CFR 1910.120/40 CFR 311.

22.3.2 Hazardous Materials Technicians – Technician level employees are qualified to engage in all offensive actions undertaken by the HAZMAT Team and all functions of the HAZMAT Staff with the exception of the following: Operations and Safety Officers. Consideration for HAZMAT Technician level requires the completion of an approved course of study in keeping with 29 CFR 1910.120/40 CFR 311, and the standards set forth in NFPA 472.

- The minimum required yearly training to maintain this level is 40 hours or demonstrate competency for this level. **(The Operations Officer and Safety Officer must be an Officer with the Department with Incident Command Training along with the above.)**

22.3.3 Hazardous Materials Specialist – Specialist level employees who, in the course of their regular job duties, work with and are trained in the hazards of specific hazardous substances, and who will be called upon to provide technical advise or assistance at a hazardous substance release incident to the individual in charge, shall receive training or demonstrate competency in the area of their specialization annually.

22.3.4 Hazardous Materials Incident Commander (Team Leader) – will assume control of the Hazardous Materials Operations beyond the first responder awareness level, shall have received training equal to the operations level and incident command levels.

## **22.4 Incident Response**

22.4.1 The HazMat Response Teams will respond to a request for assistance from any emergency service organization in Shelby County. The team will also respond to out of county incidents at the request of that county's HazMat Team. Requests should be made through the County 911 center and the information given to the County Fire Radio and Radio Room Supervisor for proper dispatch of the team.

22.4.2 Although any organization may request the HazMat Team, the HazMat Team requires the fire department-having-jurisdiction be dispatched to the scene.

22.4.3 The HazMat Team will be dispatched by the City of Pelham Communications Center.

## **22.5 HazMat Operations**

22.5.1 An offensive situation for the HazMat Team implies an environment that requires that Hazard Zones have been or will be set up to deal with a chemical hazard, known or unknown, and the operations including Entry Teams working in a Hot Zone or Exclusion Zone will be utilized to mitigate an incident. A total of 8 persons are recommended to outfit a HazMat Team in an offensive situation:

- 2 – Primary Entry Team
- 2 – Backup Entry Team/Rescue Team
- 4 – Support Team

### 22.5.2 Defensive Operations

22.5.2.1 The HazMat team in a defensive situation implies the team is being utilized by the Incident Commander for operations that involve no zone setup or no entry into a Hot Zone or Warm Zone. These operations include, but are not limited to the following:

- Operations involving materials into waterways that require no respiratory or splash protection above coveralls or firefighter protective clothing such as fuel oil or diesel fuel into lakes or streams.
- Operations involving materials on hard surfaces that require no additional respiratory or splash protection.

### 22.5.3 Protocol Dispatch

**The following is a suggested list of HazMat Team dispatches. This can be done by the On-Scene Incident Commander or by information received by the City of Pelham Communications Center.**

- 22.5.3.1 At the request of any emergency service field provider, including fire, EMS, or law enforcement personnel responding or on location.
- 22.5.3.2 Any spill, leak or release of an unknown HazMat requiring the dispatch of the local fire company.
- 22.5.3.3 Any spill, leak, or release of one hundred gallons or more of a flammable liquid. i.e. gasoline, aviation fuel, toluene
- 22.5.3.4 Any spill, leak, or release of five hundred gallons or more of a combustible liquid. i.e. fuel oil, diesel fuel, or kerosene.
- 22.5.3.5 Any incident involving a truck, van, or car transporting Hazardous Materials, which is on fire, leaking or overturned. This excludes vehicle fuel or saddle tanks.
- 22.5.3.6 Any fire at a SARA Title III facility involving Hazardous Materials.
- 22.5.3.7 Any incident involving mixed chemicals. This does not include fluids on the highway from accidents such as gasoline and radiator fluid.
- 22.5.3.8 Any incident involving radioactive materials.
- 22.5.3.9 Any fire involving Hazardous Materials, excluding gasoline and fuel oil fires.
- 22.5.3.10 Any flammable gas leaks in large tanks (500 lbs. or more) or pipelines (excluding service lines).
- 22.5.3.11 Accidents involving chemicals in labs, businesses, warehouses, and industrial complexes.
- 22.5.3.12 Rupture of an underground flammable liquid pipeline.

22.5.3.13 Any large discharge (over 55 gallons) of hazardous materials into any waterways. This does not include the investigation of unknown substances or waterways.

22.5.3.14 Dispatcher discretion.

## **22.6 Scene Procedures**

22.6.1 Personnel arriving on location in personal vehicles should park their vehicles in an area removed from the scene in an uphill, upwind direction of the location of the spill. Proper response PPE for the situation should be worn.

22.6.2 Personnel arriving on location prior to the arrival of an officer should assume the role of liaison and make contact with the incident commander, ascertaining as much information as is available on the situation. A location for setup for the team should be designated and communicated to the team personnel. It is also vital to begin documentation as soon as possible and ensure the recording of the chain of events as they pertain to the incident.

22.6.3 First arriving personnel should also ascertain whether zones have been established and if they are appropriate for the hazard involved. Should the zones be inappropriate, the team member should communicate his/her concerns to the Incident Commander. The first arriving HazMat Team Officer, will assume the role of Team Leader.

22.6.4 The establishment of zones should be initiated, if not already completed by the Incident Commander as soon as possible. These zones will consist of the following:

- Hot Zone – This is the immediate area around the product where the entry is controlled and only properly protected personnel will be permitted. This area should be considered an Immediately Dangerous to Life and Health (IDLH) atmosphere.
- Warm Zone – This is the area surrounding the Hot Zone. This area should encompass at least seventy – five feet to accommodate the decontamination line. Again, only proper protected personnel should be in this area; however, this area is deemed to be a clean area until the entry goes through the Decontamination Area.
- Cold Zone – This is the area surrounding the Warm Zone, where response personnel are staged. This area should also include the Incident Command Post, but does not exclude the general public or the press without specific instructions from the IC or HazMat Team Leader or his designee.
- Decontamination Corridor – This area located in the Warm Zone is where the Entry Team will enter and exit from the Hot Zone. This area includes

the Decontamination stations and should incorporate an area of 25' wide by 75' long.

## **22.7 Entry Team Procedures**

22.7.1 All entries into the area designated as the Hot and Warm Zones shall be limited to personnel trained to the Technician Level or higher. All personnel trained to these levels will wear the proper protective equipment as determined by the HazMat Branch Safety Officer.

22.7.2 All entry team members will remove personal belongings, such as wallets, watches, pagers, jewelry, etc. and place them into Ziploc bags and give those bags to the Entry Officer. Personnel effects bags will be locked in a secure storage area.

22.7.3 All entry and reconnaissance operations shall be conducted utilizing a minimum of four personnel:

- A primary entry team designated as "Entry One" and a back up team designated as "Entry Two" will be established prior to any entry into the Hot Zone.

22.7.4 All personnel entering the Hot Zone shall be equipped with radio communications. These radios will be set to the primary entry channel (TAC 1). **The Entry Team, Backup Team, Entry Officer, and Safety Officer will communicate on the channel designated TAC 1 for all communications conducted between the above listed members.**

22.7.5 All other communications will be conducted on the scene frequency (OPS 1). This includes, but is not limited to: Operations, Safety, Team Leader, Liaison, Medical and Research. The Entry Officer and the Safety Officer should have the capability to monitor the scene and entry channel.

22.7.6 Prior to entry into the Hot Zone, the Entry and Backup Teams will be briefed by the Entry and Safety Officer as to objectives of the entry, expected conditions, control techniques, decontamination procedures, and any emergency procedures.

22.7.7 All HazMat Team personnel should remain alert to possible members in distress while operating in protective clothing. The emergency distress signal for members in PPE shall consist of waving both arms above the head.

22.7.8 Unless it is not physically possible, the Safety Officer should maintain visual contact with the entry teams at all times. If visual contact is not possible, the Entry Officer should maintain radio contact with the Entry Team every five minutes.

- 22.7.9 The maximum allowable working time on SCBA for the Entry Team shall not exceed ½ capacity of their air supply. I.e. a 1 hour bottle will allow 30 minutes of working time.
- 22.7.10 Any team entering the Hot Zone for offensive operations should have monitoring equipment specific to the hazard that will be encountered. If the chemical(s) are unknown, the monitoring equipment should consist of the following: PH paper, Radiation meter, and O2/LEL monitor. This is done to rule out corrosive, radioactive, oxygen-deficient, and flammable atmospheres. Use of Terrorism – agent detection equipment should be considered for any suspected terrorism incident. I.e. M-8 paper and M – 256 Kit.
- 22.7.11 Any readings indicating an IDLH or unsafe environment in the Hot or Warm Zone should be reported to the Entry Officer. Should an Entry Team obtain a reading of 23% oxygen or higher, that team should remove itself from the area until that reading can be lowered or appropriate safety measures taken. Any reading of 10% of the LEL shall be considered IDLH and the Entry Team will cease operations until levels can be lowered or appropriate safety measures taken.
- 22.7.12 The medical status/vital signs of each member of the Entry and Decontamination Teams should be checked prior to donning of PPE. Vital signs taken should include: pulse, blood pressure, respirations, oral temperature and existing medical conditions.
- 22.7.13 Any individual with vital signs greater than the following should not wear protective clothing:
- Oral temperature greater than 99.2 degrees F.
  - Resting pulse greater than 110 beats per minute.
  - Blood Pressure greater than 150/90
- 22.7.14 Any individual with the following should be assessed as to whether they are capable of wearing PPE:
- Recent illness, especially with diarrhea, vomiting, lung or sinus congestion.
  - Sunburn
  - Medications affecting fluid balance, such as antihistamines
- 22.7.15 To compensate for excessive water loss through sweating, all members should take between 8 – 16 ounces of fluids prior to and after entries requiring donning of protective equipment
- 22.7.16 Entry personnel will be briefed on all hand signals.

**22.8 Decontamination Procedures**

22.8.1 At every incident involving hazardous materials there exists the possibility that response personnel and equipment will be contaminated. These contaminants pose a threat, not only to the personnel contaminated, but also to other personnel who may have subsequent contact with them or the equipment.

22.8.2 Decontamination consists of removing the contaminants by chemical or physical processes. While it is advantageous to avoid becoming contaminated, all personnel and equipment entering the Hot Zone are to be considered contaminated and are to be processed through a decontamination line.

22.8.3 All personnel assigned to the Decontamination Team generally, will wear protective clothing at the same level or one level less than the Entry Team. This level will be proportional to the hazard involved.

22.8.4 The basic decontamination setup will consist of a seven-step fundamental decontamination line. This basic decontamination line will consist of the following:

- An area of approximately twenty-five feet wide by seventy-five feet long will be used for setup of the area.
- Two lined containers will be placed at the entrance to the decontamination line. These containers will be placed on either side of the line itself and are to be used for an instrument and “Hot” tool drop.

22.8.5 Basic decontamination will consist of the following steps:

- Step 1 will consist of gross body rinse and washing of gloves and boot covers or boots.
- Step 2 will consist of the removal of the outer tape and boot covers if applicable. These items will be placed in a lined trashcan for disposal.
- Step 3 will be a manned station that will consist of a rinse, wash with detergent, and a final complete rinse.
- Step 4 will consist of the removal of boots and or boot covers and inner tape. These items will be placed in a lined trashcan for disposal.
- Step 5 will be a manned station that will consist of a rinse, wash with detergent, and a final complete rinse.
- Step 6 will consist of the removal of all PPE with the exception of self-contained breathing apparatus.
- Step 7 will consist of the removal of the SCBA.

- 22.8.6 After completion of the seven-step decontamination process, each member will report to the medical officer or designee for medical surveillance, rest and rehabilitation.
- 22.8.7 This initial seven-step process is considered to be the minimum allowable process for a wet-type decontamination. A dry-type decontamination (i.e. brushing off of solid material or air decontamination of a hazardous gas with mechanical fans) may require less steps depending on the contaminate. These procedures can and should be upgraded as additional information is obtained concerning the type and degree of hazard involved and the probability of exposure of response personnel.
- 22.8.8 The decision to add additional steps will be made by the team leader after consultation with the Research, Operations, Safety, Decontamination, and Entry Officers.
- 22.8.9 Many types of equipment are difficult to decontaminate and may have to be discarded after use. Whenever possible, equipment used in the Hot Zone should be of a disposable nature or made of a non-porous material.
- 22.8.10 Items such as monitoring and sampling equipment are costly to replace and are not considered disposable. Every attempt should be made to protect these items from contamination. Monitoring equipment may be placed in plastic bags with only the detecting element exposed to minimize potential for contamination.
- 22.8.11 The decontamination corridor and the Decontamination team will be ready for operations prior to any entry into the Hot Zone.

### **22.9 Emergency Decontamination**

- 22.9.1 Persons at the scene of an incident who are injured or have been exposed to contaminants may require emergency decontamination than is suitable under the basic decontamination setup.
- 22.9.1 The Entry Team will assess the patient condition as rapidly as is possible. The Entry Team will place the patient on a stokes-basket or sked stretcher and delivered to the Decontamination Team. The following steps are to be taken:
- The Decontamination Team will do a gross rinse of the patient.
  - The clothing of the patient will be removed.
  - A secondary wash and rinse of the patient will be performed.
  - Patient will be packaged and turned over to EMS personnel for medical treatment.

- 22.9.2 Every attempt should be made to have a MSDS or a product label from an unopened container accompany the patient to the hospital.
- 22.9.4 If a member of the Entry Team were to become incapacitated as a result of injury or exposure, the backup team will be dispatched to assist in removal of the team member. The process for emergency decontamination will remain as shown in 22.9.2, and a member of the medical staff will accompany the team member to the closest available hospital.

## **22.10 Communication Procedures**

- 22.10.1 The HazMat Teams will be equipped with radios that are intrinsically safe for use in suit-to-suit communications. These radios operate on separate frequencies from the communications provided for Fire, EMS, and police communications.
- 22.10.2 All Entry and Backup Team personnel donning personal protective equipment are to be outfitted with suit-to-suit radios. All radios for Entry and Decontamination personnel are to be set on the same frequency and tested prior to being issued to those members. Communications on the Entry Team channel is limited to: the Entry Team and Backup Team and the Entry Officer, Safety Officer, and Decontamination Officer will monitor this channel for radio traffic.
- 22.10.3 Whenever possible, all radio equipment is to be placed inside the suit. No radio equipment should be on the outside of any chemical protective clothing.
- 22.10.4 All communications for the HazMat Team will be in common terminology and using clear text. The following is a list of common identifiers for field communications:

<b>Incident Commander</b>	<b>“Command”</b>
<b>HazMat Branch Officer</b>	<b>“HazMat”</b>
<b>Operations Officer</b>	<b>“Operations”</b>
<b>Safety Officer</b>	<b>“Safety”</b>
<b>Research Officer</b>	<b>“Research”</b>
<b>Liaison Officer</b>	<b>“Liaison”</b>
<b>Entry Officer</b>	<b>“Entry”</b>
<b>Entry Team One</b>	<b>“Team One”</b>
<b>Entry Team Two or Backup</b>	<b>“Team Two”</b>
<b>Decontamination Officer</b>	<b>“Decon”</b>
<b>Decontamination Team</b>	<b>“Decon Team”</b>
<b>Medical Officer or Team</b>	<b>“Medical”</b>

## **22.11 Incident Command Positions and Responsibilities**

- 22.11.1 HazMat Division Officer (HMO)

- Shall be designated at all Hazardous Material incidents.
- The HMO is responsible for planning, directing, and controlling all HazMat Operations.
- The HMO reports to the overall scene Incident Commander or Operations Officer.
- The first arriving team technician shall assume the role of the HMO until relieved by a higher ranking or higher trained HazMat team member.
- The HMO shall maintain communications with the Incident Commander and keep him informed of all HazMat Team operations
- The HMO shall appoint the Command positions and coordinate their activities.
- The HMO shall conduct a briefing with the Incident Commander and Operations Officer to present an operations plan for the incident. this briefing will be conducted before a Hot Zone entry is made.
- The HMO will coordinate with the Safety Officer to ensure that field operations are conducted safely.
- The HMO shall ensure that all incident records regarding the incident are completed.
- The HMO will hold an incident critique with the team members as soon as time allows.
- The HMO shall be trained to the Operations level with HazMat Incident Command and will be an officer or acting officer within the Pelham Fire Department.
- The HMO can assign a HazMat Team Leader to assist in the management of the HazMat operations.

### **22.11.2 HazMat Team Leader**

- Works with the HMO to develop a tactical or action plan that addresses the goals and objectives set forth by the Incident Commander.
- Reviews the plan with the Safety Officer.
- These decisions should be made with the team's training, manpower, and equipment limitations in mind.
- Assembles teams and assigns tasks.
- Supervises all operations.
- Provides the HMO with timely progress reports.
- Reviews available resources, and requests additional resources from the HMO.
- Plan for rotations or relief of crews.
- This position shall be trained to the Technician level with HazMat Incident Command training and an officer or acting officer within the Pelham Fire Department.

### **22.11.3 Safety Officer**

- The HazMat Safety Officer shall be trained to the Technician level with HazMat Incident Command training as well as a certified Fire Department Safety Officer course.
- The Safety Officer shall perform a review of incident action plans to identify and rectify potentially unsafe situations and actions.
- The Safety Officer shall perform a review of entry plans for the safety of the entry teams. This includes but is not limited to suit compatibilities, air supply, working times, potential environmental hazards, and safety procedures with working in the Hot Zone.
- The Safety Officer shall direct the preparation and implementation of a Site Safety Plan.
- The Safety Officer shall investigate any accidents or injuries that occur during HazMat Team Operations.
- The Safety Officer shall monitor activities in the Warm and Hot Zones and advise the Operations and Entry Team leaders of any dangerous or potentially dangerous situations.
- The Safety Officer shall supervise the work/rest cycles for the Entry Team, Decontamination Team, and all others who are required to wear personal protective equipment.
- The Safety Officer shall ensure that all personnel working in the Warm and Hot zones receive medical monitoring.
- It is the responsibility of the Safety officer to ensure the operation unfolds in a safe manner, not to make tactical decisions, or set strategic goals or objectives.
- The Safety Officer has the authority to stop all operations in order to prevent any unsafe actions during the operations.
- The Safety Officer shall insure that all personnel working in capacities that require contact during defensive operations, are at trained to the Hazardous Materials Operations level or higher.

### **22.11.4 Scribe**

- Will be the official recorder of minutes for the HazMat Incident.
- Will be involved in all team meetings.
- Will keep an accurate written log of the incident and make an official report for the record.
- Will initial all official entries and changes into the logbook.

### **22.11.5 Research Officer**

- It is the responsibility of the Research Officer to research all forms of data pertaining to chemicals involved in the incident. This includes but is not limited to: chemical properties, hazards, medical signs and symptoms,

proper PPE, proper instrumentation, and supplies or equipment needed to mitigate the incident. This information must be communicated to the Operations Officer, Entry Officer, Medical Officer, Decontamination Officer, and the Safety Officer.

- Provide other types of data relating to weather conditions, present and future, product ownership, and maps relating to incidents including conventional, aerial, and geological survey.
- Interpret technical data acquired from environmental monitoring and field-testing.
- Project the potential environmental effects of the release.
- It is required by the Research Officer that in researching chemicals involved in an incident, that three (3) different types of reference sources be used to garner information.
- The number of persons assigned to this function may be supplemented depending on the chemicals or suspected chemicals involved, and/or the complexity of the incident.

### **22.11.6 Entry Officer**

- It is the Entry Officer's responsibility to identify all personnel entering the Hot Zone for offensive operations. This includes documentation of working times, actions to be undertaken and proper radio contact with those personnel working in the Hot Zone.
- Provide recommendations to the Operations and Team Leader Officers for control actions.
- Plan, approve, and directly supervise all entry operations while maintaining communication with the Entry Team
- Maintain communications and coordinate operations with the Decontamination Officer and/or Decontamination Team and the Research Officer.
- Prepare and maintain the Entry Operation Sheets.

### **22.11.7 Decontamination Officer (Decon Officer)**

- It is the responsibility of the Decon Officer to determine the level of protection for the Decon Team, and the number and layout of the decon station in the contamination reduction area.
- To determine what equipment and supplies are needed to complete the decontamination operations, and if necessary, request additional personnel and supplies through the Operations Officer.
- Relay decontamination setup to the Entry Officer and Entry Teams.
- Coordinate with the Safety Officer for approval of Decon layout to insure controlled entry/exit to the Cold and Hot Zones.
- To insure the Entry, Backup, and Decon personnel are properly decontaminated prior to entry into the Cold Zone.

- It is also the responsibility of the Decon officer to ensure the contamination reduction area is in full working order prior to any entry into the Hot Zone by Entry Teams.

**22.11.8 Medical Officer**

- The Medical Officer is responsible for coordinating the medical monitoring of HazMat Team Entry and Decon. This person shall be a Paramedic with ALS/HazMat training.
- Medical monitoring includes, but is not limited to, the taking of vital signs, documentation of exposure signs and symptoms, rehydration and rehabilitation of the Entry and Decon Teams, and the maintaining of records pertaining to the above listed items.
- Consult any reference materials for possible signs and symptoms of overexposure to a hazardous material.
- Evaluate, release or restrict team personnel prior to suit-up per the following criteria, and consider denying entry to any personnel, based on their respective history, with any one of the following:
  - \* Temperature greater than 99.2 F
  - \* Respirations greater than 24
  - \* Pulse greater than 110
  - \* Blood pressure greater than 150/90
- Coordinate with the Incident Commander for transport of injured persons in the Hot Zone or injuries occurring to any team member.

**22.11.9 Defensive Control Officer**

- It is possible that HazMat Team personnel may be in charge of fire department personnel when engaged in defensive operations such as damming, diking, diversion and the like. These personnel will be designated as Control Officers. As long as the fire department personnel are engaged in defensive actions and are trained to the Hazardous Materials Operations level as defined in this SOG, they are permitted to assist with control operations.
- Since the nature of an incident could require that more than one defensive action be taken simultaneously, two or more persons could be assigned as Control Officers with the responsibility for different sectors, utilizing responders from those Fire/EMS stations involved in the incident.
- Responsibilities of the Control Officers include but is not limited to: determining the best locations to mount control measures, such as where to place booms, erect dams or fences, or any other device that could impede water or chemical flow. The responsibilities of the Control Officer also includes determining which supplies, such as booms, pads, oil absorbents, or other materials used to construct dams or fences and other extraneous items such as vacuum trucks, and front end loaders, are going to be required to adequately mitigate the situation.

## **22.12 Dressout Procedures**

22.12.1 It is the responsibility of the personnel assigned “dress-out” of the Entry and Decon team members to insure proper dressing and outfitting is accomplished in a timely manner.

- To make sure that PPE to be used is in the proper sizes, in excellent condition, and that equipment to be used by those Entry Teams is in proper working order and calibrated/zeroed prior to entry into the Hot Zone.
- To insure that communications equipment to be used by the Entry and Decon Teams is properly assembled, in good working order and fitted in a manner most comfortable to those personnel using the equipment.

### **22.12.2 Warm Weather Dressout**

- Secure (tag/bag) personnel items such as wallets, keys, pagers, watches, etc.
- Receive medical surveillance checkout, including the proper intake of fluids. This should checkout be done in a shaded area and with the entry team member sitting down.
- Don nomex coveralls, if applicable.
- Check SCBA bottle for proper pressure.
- Apply radio communications units. I.e. ear microphones, radio, body transmitter, and radio case for each member of the Entry and Decon Team.
- Put on cooling vests or suits
- Don SCBA, utilizing straps for radio components
- Don suit to the waist
- Put on chemical resistant boots.
- Put on inner gloves.
- Tape wrists, boots, and/or other exposed areas.
- Don SCBA face piece, check for good seal.
- Place nomex hood over SCBA face piece.
- Don remainder of the suit and if fully encapsulated, go on air and record the on air time.
- Perform final radio check with the Entry Officer
- If suit is non-encapsulated, go on air and record the time.
- No personnel should go on air until entry into the Hot Zone is ready to be made.

22.12.2.1 All of the above steps should be done as a single unit and no one gets ahead or behind. Performing the above steps in order will insure safety and accurate timing.

### 22.12.3 Cold Weather Dressout

- Secure (tag/bag) personal items such as wallets, keys, pagers, watches, etc.
- Receive medical surveillance checkout, including the proper intake of fluids.
- Don nomex coveralls, if applicable.
- Check SCBA bottle for proper pressure.
- Apply radio communications units. i.e. earmics, radio, body transmitter and radio case for each member of the Entry/Decon team
- Don SCBA, utilizing straps for radio components
- Don suit to the waist
- Put on chemical resistant boots.
- Put on inner gloves.
- Tape wrists, boots, and/or other exposed areas.
- Don SCBA face piece, check for good seal.
- Place nomex hood over SCBA face piece.
- Don remainder of the suit and if fully encapsulated, go on air and record the on air time.
- Perform final radio check with the Entry Officer
- If suit is non-encapsulated, go on air and record the time.
- All of the above steps should be done as a single unit and no one gets ahead or behind. Performing the above steps in order will insure safety and accurate timing.
- No personnel should go on air until entry into the Hot Zone is ready to be made.

## 22.13 Termination

22.13.1 Termination of an incident is the phase in which the activities of the HazMat Team are concluded and the responsibility for clean-up is to be turned over to Federal, State, local authorities, and/or a private cleanup contractor. The transition from the containment/control operations to the termination phase is one that may be obscure.

22.13.2 Containment, control, and/or mitigation is the main concern of the HazMat team and once this phase is completed, operations should be turned over to private contractors for remediation. However, the fire department have jurisdiction, may have concerns about private contractors and this may require officers and members of the HazMat team to remain on the scene to observe operations.

Termination of the HazMat team's involvement should be based on the following criteria:

- 22.13.3 Has the release of the material(s) been stopped, and/or the reaction of the materials controlled? Is the overall emergency scene secure?
- 22.13.4 Have the released materials been contained in a localized and manageable area?
- 22.13.5 Are Federal, State, or local authorities responsible for assuming site control on the scene? If so, have they been briefed regarding scene conditions, actions taken, identity of the parties responsible for cleanup, and the materials needed for the cleanup present?
- 22.13.6 Is the cleanup contractor on site? Are they adequately supervised and familiar with the hazards involved?
- 22.13.7 Proper termination of activities for the HazMat Team requires that certain items be addressed with members of the team. These include but are not limited to:
- Signs and symptoms of exposure.
  - Problems with equipment, communications, and personnel.
  - Problems that require immediate attention or follow up.
- 22.13.8 Incident documentation should be collected for post-incident debriefing. This includes medical reports, site safety plan, entry forms, lists of materials used and needed, copies of shipping papers or MSDS, photographs, team worksheets, and any written personal accounts. A team debriefing should take place as soon as possible after the completion of the incident. Depending on the complexity of the incident or if problems were found with the HazMat Team and the local fire department, or other municipal authority, a joint debriefing involving all parties and/or critique should take place as soon as possible.
- 22.13.9 Proper termination also involves completion of any injury and/or exposure documentation, if applicable. These forms must be retained for a period of thirty-years beyond employment as per OSHA regulations.

## **22.14 References**

National Fire Protection Association – Standard 471  
“Recommended practice for responding to Hazardous Materials Incidents”

National Fire Protection Association – Standard 472  
“Standard on professional Competence of responders to Hazardous Materials Incidents”

National Fire Protection Association – Standard 473

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“Standard on Competencies for EMS Personnel Responding to Hazardous Materials Incidents”

National Fire Academy – Hazardous Materials Site Operating Practices

National Fire Academy – Hazardous Materials Incident Management

International Association of Firefighters – Hazardous Materials Incident Management

29 Code of Federal Regulations 1910.120 (q) – Emergency Response to Hazardous Materials Incidents

**Record of Changes**

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**City of Pelham**  
Industrial, Commercial, and Municipal Facility  
Site Inspection SOP

In general, the following procedures shall be followed when conducting routine on-site inspections of applicable facilities as determined by the MS4 that could potentially contaminate the MS4. In general, the inspection shall consist of an indoor and outdoor inspection as described below.

**Outdoor Inspection**

Generally, the outdoor inspection shall consist of walking the facility's site with the objective of locating and visually inspecting (to the extent practicable) all storm sewer infrastructure, material storage areas, rooftop drainage, material loading and unloading areas, and general condition of the site grounds. Observations shall be made as to good housekeeping of site grounds, spill control measures of outdoor material storage areas (if applicable), and the potential for contact of outdoor material storage with storm water runoff.

**Indoor Inspection**

The indoor inspection should be conducted in a similar fashion to that of the outdoor inspection in regards to visual observations. During the indoor inspection the following should be identified:

- 1) Nature of operations and processes
- 2) Chemicals used for operations
- 3) Type of discharge, if any (continuous, batch, etc.)
- 4) Location of discharge(s)
- 5) Building floor drains and similar features
- 6) Storage areas
- 7) Spill control measures and training

**Conclusion**

Upon completion of the inspection, deficiencies and/or action items noted by the inspector shall be made known to the facility contact and all information required by the inspection form documented and filed. A map of the site identifying all relevant information shall be attached to the inspection form for each site inspection.

**City of Pelham**  
Vehicle Maintenance  
Standard Operating Procedures

In general, the following procedures shall be followed when conducting routine vehicle maintenance that could potentially contaminate the MS4 with petroleum products, nutrients, sediment, etc.

1. In general, vehicle washing shall be performed at a commercial car wash where wash water is recycled and detergents are phosphate free. Vehicle washing shall be performed on an as needed basis.
2. Vehicles shall be inspected weekly by the City personnel utilizing that vehicle for any fluid leaks. All fluid leaks shall be repaired as soon as practical by a third party mechanic.
3. In general, trash and debris within vehicle interiors and truck beds should be removed on a weekly basis.
4. When re-fueling City vehicles, City personnel shall not “top off” the fuel tank. Re-fueling of City vehicles is performed at commercial gas stations.
5. Absorbent pads/spill kits shall be kept on all applicable City vehicles (Street Department, Sewer Department, etc...) in the event that they are needed.

**City of Pelham**  
Street and R.O.W. Maintenance  
Standard Operating Procedures

In general, the following procedures shall be followed when conducting routine street and right-of-way maintenance that could potentially contaminate the MS4.

1. In general, mowing should be performed in lieu of the use of herbicides along street R.O.W.s.
2. When performing clearing of R.O.W.s, disturbed areas shall be re-grassed as needed to mitigate erosion potential.
3. All litter should be removed from the work area by the end of each day.
4. When herbicides must be used, they shall be used in strict accordance with the manufacturer's recommendations.
5. The work crew shall perform a cursory inspection of all nearby inlets and ditches to ensure that leaves, grass clippings, etc... do not enter storm sewer conveyances (ditches, inlets, etc...). Debris that enters such conveyances shall be removed as soon as practical.
6. Street repair shall consist of pothole patching as needed. Should the Street Dept. crew feel that there is an excessive amount of deteriorated asphalt and/or sediment in the area of repair, such sediment should be cleaned up and disposed of as needed to remove the potential for entering the MS4.

**City of Pelham**  
**Spill Response**  
**Standard Operating Procedures**

In general, the following procedures shall be followed when fluids that could potentially contaminate the MS4 are spilled.

**Spills < 5 Gallons**

1. Absorb spill with oil/floor dry immediately.
2. Protect floor drains or storm sewer inlets if applicable.
3. All used floor dry and rags utilized to clean up the spill shall be cleaned up and disposed of in accordance with all applicable rules and regulations.

**Spills >5 Gallons**

1. For spills greater than 5 gallons, the Pelham Fire Department shall be notified immediately.
2. In the interim while the Pelham Fire Department is in route, City personnel shall attempt to protect all nearby storm sewer inlets and/or drains by covering them, constructing temporary dams of floor dry, or digging temporary ditches as applicable.
3. The Pelham Fire Department will follow all procedures and documentation requirements dictated by their own Hazardous Materials SOP included within the City's SWMPP, including notification procedures to ADEM and the Shelby County EMA.

**City of Pelham**  
Equipment Washing  
Standard Operating Procedures

In general, the following procedures shall be followed when conducting routine equipment washing that could potentially contaminate the MS4 with petroleum products, nutrients, sediment, etc.

1. Wash equipment on pervious surfaced areas whenever feasible; avoid washing down equipment next to stormwater conveyances (ditches, inlets, etc...).
2. Washing of equipment where wash water drains directly to a waterbody is prohibited.
3. Avoid the use of detergents. If detergents must be used, phosphate free detergents shall be utilized.
4. Always utilize a shut off valve or nozzle on the water supply utilized to minimize water usage.
5. Absorbent pads/spill kits shall be utilized on any equipment fluid leaks observed during washing (transmission, fuel, hydraulic, etc...). Repairs shall be made immediately to stop the leak. Refer to the Spill Prevention and Response SOP for additional instructions.

**City of Pelham**  
Storage and Disposal of Chemical Wastes  
Standard Operating Procedures

In general, the following procedures shall be followed when storing and disposing of chemical wastes that could potentially contaminate the MS4 if spilled.

1. All chemical and fluid wastes such as oils, transmission and hydraulic fluids, paints, paint thinners, degreasers, detergents, solvents, etc... shall be stored and disposed of in a manner to prevent environmental pollution.
2. Such fluids shall never enter any storm sewer or sanitary sewer drains.
3. All recoverable fluids such as transmissions fluids, coolants, or oils shall be captured and placed in the used oil container located at the City's Garage.
4. No chemicals or automotive fluids shall be stored outside without a canopy and contained within a sealed container or tank.
5. The City's used oil container shall be a double walled tank.
6. For spills, refer to the Spill Response SOP included within the City's SWMPP.
7. Disposal of used fluids shall consist of a third party vendor licensed to handle hazardous materials. Disposal shall occur on an as needed basis.
8. Other hazardous materials such as paints and paint thinners shall be placed in a clearly labeled (separate) container and also removed and disposed of off-site by the third party disposal company.

**STORM WATER MANAGEMENT PROGRAM PLAN**  
**City of Pelham MS4**

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**APPENDIX 6**

Industrial and Commercial Facility Inventory and  
Post-Construction Structural Control Inventory

City of Pelham  
Industrial and Commercial Facility List

BUSINESS LICENCE CODE	BUSINESS NAME	ADDRESS	CITY	STATE	ZIP	PHONE	DATE INSPECTED	NPDES PERMIT	COMMENTS
444	Aerne Brick	2299 Pelham Parkway	Pelham	Alabama	35124	988-3913	9/19/22		
48841	Action Towing & Recovery Inc	2075 Valleydale Terrace	Pelham	Alabama	35244	979-8697	9/22/22		
424	Advanced Plastics	30 Commerce Drive	Pelham	Alabama	35124	664-1429	9/20/22		TIER II
424	Airgas USA, LLC	3440 Pelham Parkway	Pelham	Alabama	35124	663-6546	9/23/22		TIER II
333/335	American Safety Tread Co., Inc.	3201 Johnson Street	Pelham	Alabama	35124	664-0511	8/17/17	ALG120812	Has ADEM Air Permit
333	Applied Fluid Systems, Inc	1100 Court Place	Pelham	Alabama	35124	664-0590	9/23/22		
327	Bama Concrete Products Co., Inc.	3166 Lee Street	Pelham	Alabama	35124	664-3500		ALG110261	TIER II
441	Brookwood Motors Pelham	3135 Pelham Parkway	Pelham	Alabama	35124	663-0300	9/23/22		
4442	Cahaba Tractor Company	2843 Pelham Parkway	Pelham	Alabama	35124	663-1470	9/19/22		
324	Cain Manufacturing Co., Inc.	2956 Highway 11	Pelham	Alabama	35124	663-2200	9/21/22		TIER II
493	Carboline Company	309C Cahaba Valley Parkway	Pelham	Alabama	35124	(888) 227-2654	9/26/22		TIER II
486	Colonial Pipeline Company	2999 Hwy. 52 East	Pelham	Alabama	35124	358-3603	9/22/22	ALG340001	TIER II
441/4413	CRM Motors/CRM Extreme Offroad, Inc.	2710 Pelham Parkway	Pelham	Alabama	35124	444-9333	9/27/22		
441	Donohoo Auto LLC	8122 Helena Road	Pelham	Alabama	35124	444-9333	9/27/22		
441	Driver's Way	100 Drivers Way	Pelham	Alabama	35124	(866)828-1900	9/26/22		
441	Drivetime	2205-A Pelham Parkway	Pelham	Alabama	35124	909-1221	9/26/22		
441	Emergency Equipment Professionals	31 Monroe Drive	Pelham	Alabama	35124	685-8200	9/27/22		
8111	Express Oil Change	2874 Pelham Parkway	Pelham	Alabama	35124	664-1711	9/22/22		
8111	Express Oil Change	461 Cahaba Valley Road	Pelham	Alabama	35124	402-0409	9/22/22		
8111	Express Oil Change	2308 Pelham Parkway	Pelham	Alabama	35124	620-9244	9/22/22		
444	Five Star Lumber	907 Belcher Drive	Pelham	Alabama	35124	664-5509	9/21/22		
327	Forterra Pipe and Precast	400 Industrial Park Drive	Pelham	Alabama	35124	332-7113		ALG110161	TIER II
441	Fortune Automotive Group	3434 Pelham Parkway	Pelham	Alabama	35124	621-8898	9/21/22		
8111	Halcy Transmission	2725 Pelham Parkway	Pelham	Alabama	35124	664-8710	9/19/22		
423	Henry MD Company	120 Clark Drive	Pelham	Alabama	35124	663-6711	9/27/22		
532	Herc Rental Company	2150 Pelham Parkway	Pelham	Alabama	35124	988-8530	9/26/22		TIER II
423	Ingram Equipment Company, LLC	11 Monroe Drive	Pelham	Alabama	35124	663-3946	9/23/14	ALG140850	
8111	Jack's Garage and Radiator	2727 Pelham Parkway	Pelham	Alabama	35124	664-8300	9/19/22		
8111	Joe Hudson's Collision Center	2737 Pelham Parkway	Pelham	Alabama	35124	664-9952	9/26/22		
441	Legacy Motors, LLC	2900 Pelham Parkway	Pelham	Alabama	35124	620-0055	9/22/22		
423	McCain Engineering	2000 McCain Parkway	Pelham	Alabama	35124	663-0123	9/27/22		
332	Process Equipment, Inc.	15 Welborn Street	Pelham	Alabama	35124	663-1750		ALG120347	TIER II
423	Nichols Concrete Equipment Co., Inc.	1380 McCain Parkway	Pelham	Alabama	35124	664-3430		ALG140515	
532	One Source Rentals	1369 McCain Parkway	Pelham	Alabama	35124	621-2633	9/27/22		TIER II
56173	P.S. Site Management Consultants, Inc.	16 Belcher Drive	Pelham	Alabama	35124	620-0029	9/21/22		
332	Pelham Machine & Tool, Inc.	1 Breco Industrial Park	Pelham	Alabama	35124	663-3851	9/23/22		PO Box 423
4413	Pep Boys Auto Service & Tires	3318 Pelham Parkway	Pelham	Alabama	35124	663-6421	9/26/22		
2362	ProcessBarron	2770 Welborn Street	Pelham	Alabama	35124	663-5330		ALG120525	
444	Ready Mix USA, LLC (Block Plant)	3166 Lee Street	Pelham	Alabama	35124	400-1473	9/25/15	ALG110440	TIER II
312	Reddy Ice #329	315 County Road 52 West	Pelham	Alabama	35124	663-6250	9/23/22		TIER II, no longer makes ice
424	Research Solvents & Chemicals	402 Industrial Park Drive	Pelham	Alabama	35124	663-6350		AL 0074276	TIER II
441	Riverchase Kia	2200 Pelham Parkway	Pelham	Alabama	35124	987-6518	9/19/22		
5321	Ryder Transportation Services	140 Commerce Drive	Pelham	Alabama	35124	663-0668	9/20/22		TIER II
4413	Southern Off Road, Inc.	3347 Pelham Parkway	Pelham	Alabama	35124	685-1911	9/21/22		
532	Sunbelt Rentals	160 Commerce Drive	Pelham	Alabama	35124	664-9500	9/20/22		
441	Susan Schein Automotive, Inc.	3171 Pelham Parkway	Pelham	Alabama	35124	664-1491	9/21/22		
8111	The Garage	2174 Pelham Parkway	Pelham	Alabama	35124	982-1984	9/19/22		
562	Trash Taxi of Alabama LLC	656 Stuart Lane	Pelham	Alabama	35124	419-4005	9/23/22		
56171	Vulcan Termite & Pest Control	115 Commerce Drive	Pelham	Alabama	35124	663-4200	9/20/22	ALG120200	TIER II
	Vulcan Threaded Products	10 Cross Creek Trail	Pelham	Alabama	35124	664-3733			

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**City of Pelham**  
**Post-Construction Structural Control Inventory**

<b>Development</b>	<b>Date of Approved Construction Plans</b>	<b>Date of C.O./Final Plat</b>	<b>Description</b>
Altitude Trampoline Park	3/14/2018	8/6/2019	1 Detention Pond
American Wall Zone Addition	4/13/2018	10/4/2019	1 Detention Pond
Burnette Farms Market	10/10/2016	3/31/2017	1 Detention Pond
Chick-Fil-A	1/28/2019	11/19/2019	1 Retention Pond
Edgar's Bakery Expansion	10/17/2016	6/30/2017	1 Detention Pond
Encompass Health Rehabilitation	12/15/2016	3/5/2018	1 Detention Pond
Enterprise Rent-a-Car	7/26/2018	5/29/2019	1 Detention Pond
Exclusive Auto Wholesales (EAW)	10/1/2020	8/30/2021	1 Detention Pond
Legacy Gymnastics	4/18/2017	9/16/2020	1 Detention Pond
Mainstreet Family Urgent Care	6/5/2017	10/12/2017	1 Detention Pond
Printswell	11/1/2019	10/13/2020	2 Detention Ponds
Cahaba Tractor	5/25/2021	8/18/2022	3 Detention Ponds
MAPCO	6/1/2021	3/4/2022	Underground Det.

**STORM WATER MANAGEMENT PROGRAM PLAN**  
**City of Pelham MS4**

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**APPENDIX 7**

City of Pelham MS4 Storm Water Management  
NPDES Permit #ALS000009



Alabama Department of Environmental Management  
[adem.alabama.gov](http://adem.alabama.gov)

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

**Certified Mail 9489 0090 0027 6286 8085 34**

March 03, 2022

Honorable Gary W. Waters  
Mayor, City of Pelham  
3162 Pelham Parkway  
Pelham, Alabama 35124

RE: City of Pelham Phase I Municipal Separate Storm Sewer System (MS4)  
NPDES Permit ALS000009  
Shelby County (117)

Dear Mayor Waters:

The Department has made a final determination to issue NPDES Permit No. ALS000009 to the City of Pelham for discharges from its MS4. The NPDES Permit Number ALS000009 will be effective March 03, 2022 and expire March 2, 2027.

The Department notified the public of its tentative determination to issue NPDES Permit Number ALS000009 on January 24, 2022. Interested persons were provided the opportunity to submit comments on the Department's tentative decision through February 24, 2022. The Department did not receive comments during the public comment period for the above NPDES permit.

The City 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. If you have questions concerning this permit, please contact Melanie Ratcliffe either by email at [melanie.ratcliffe@adem.alabama.gov](mailto:melanie.ratcliffe@adem.alabama.gov) or by phone at (334) 270-5616.

Sincerely,

A handwritten signature in black ink, appearing to read "James H. Carlson".

James H. Carlson, Chief  
Stormwater Management Branch  
Water Division

JHC/mnr

File: FPER/47548

Enclosures: Permit

Cc: Ms. Mary Kuo, Environmental Protection Agency  
Mr. Andre' Bittas, City of Pelham





# NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

PERMITTEE: CITY OF PELHAM

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

PERMIT NUMBER: ALS000009

RECEIVING WATERS: WATERBODIES WITHIN THE CORPORATE BOUNDARIES OF  
THE CITY OF PELHAM 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: MARCH 03, 2022

EFFECTIVE DATE: MARCH 03, 2022

EXPIRATION DATE: MARCH 02, 2027

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 Pelham 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. This permit authorizes the following non-storm water discharges provided that they do not cause or contribute to a violation of water quality standards and provided that they have been determined not to be substantial contributor pollutants by the Permittee or the Department:
  - a. Water line flushing
  - b. Landscape irrigation (not consisting of treated, or untreated wastewater unless authorized by the Department)
  - c. Diverted stream flows
  - d. Uncontaminated groundwater 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 groundwater
  - 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
  - s. Discharges authorized in compliance with a separate NPDES permit

### **C. Prohibited Discharges**

The following discharges are not authorized by this permit:

1. Discharges that are mixed with sources of non-storm water, unless such non-storm water discharges are in compliance with a separate NPDES permit or where those dischargers have been determined not to represent significant sources of pollution, as identified by, and in compliance with, Part I.B.2;

2. Discharges of materials resulting from a spill, except emergency discharges required to prevent imminent threat to human health or to prevent severe property damage, provided reasonable and prudent measures have been taken to minimize the impact of the discharges; and
3. The discharge of sanitary wastewater through cross connections or other illicit discharges through the MS4 is prohibited.

## **PART II Storm Water Pollution Prevention & 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, protect water quality, and satisfy appropriate water quality provisions of the Clean Water Act.
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. Low Impact Development (LID)/Green Infrastructure (GI) shall be considered and actively encouraged where feasible. Information on LID/GI is available on the following websites:  
<http://www.adem.alabama.gov/programs/water/waterforms/LIDHandbook.pdf> and  
<http://www.epa.gov/nps/urban-runoff-low-impact-development>;
  - d. The measureable goals for each of the program elements outlined in Part II.B.;
  - e. The proposed schedule – including interim milestones, as appropriate, inspections, and the frequency of actions needed to fully implement each program element; and
  - f. The person and/or persons responsible for implementing or coordinating the BMPs for each separate program element.
4. The Permittee shall submit to the Department within nine (9) months of the effective date of this permit a revised SWMPP. 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 pollutant and to include inspection and maintenance, to the MEP;
- ii. For Permittee owned/maintained structural controls, the Permittee shall include in the SWMPP and implement the following:
  - 1. A map of the structural controls which should be updated as needed;
  - 2. Inspection of existing and newly constructed structural controls on a semi-annual basis, at a minimum;
  - 3. Implementation of Standard Operating Procedures (SOPs) or inspection checklist for structural control inspection and maintenance procedures;
  - 4. Stabilization and re-vegetation of eroded areas as needed; and
  - 5. Monthly inspections for floatables, litter, sediment and debris, in structural controls, with removal as needed.
- iii. The Permittee shall maintain an internal record keeping system to track the inventory of structural controls, inspections, and maintenance of the control structures; and
- iv. The Permittee shall report each year in the Annual Report the following structural control information:
  - 1. The number of inspections performed on structural controls, to include follow-up inspections. The inspection documentation (i.e. checklist) shall be made available upon request;
  - 2. A detailed description of the maintenance activities performed on structural controls, as well as the frequency;
  - 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. The contractual agreement should specify maintenance activities performed and schedule; and
  - 5. Updated structural controls map.
- v. The Permittee shall provide in the Annual Report an analysis of the effectiveness of the Storm Water Collection System Operations program.

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

- a. The Permittee must further develop, revise, and implement a public education and outreach program to inform the community about the impacts from storm water discharges on waterbodies 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. Each year, the Permittee shall implement a minimum of four (4) BMPs, which includes two (2) BMPs emphasizing public education and two (2) BMPs emphasizing public involvement.

- b. The Permittee shall include within the SWMPP a list of potential BMPs that the Permittee may implement regarding public education and public involvement. The SWMPP must address the following information, at a minimum:
  1. Seek and consider public input in the development and implementation of the SWMPP;
  2. Identify targeted pollutant sources the Permittee's public education program is intended to address;
  3. Specifically address the reduction and removal of litter, floatables and debris from entering the MS4, that may include, but is not limited to the following:
    - a. A program to support volunteer groups for labeling storm drain inlets and catch basins with "no dumping" message;
    - 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; and
    - c. Participate in at least one activity each year that targets the removal of litter, floatables, and debris from the MS4 area as described in the SWMPP. Estimate the amount of litter, floatables, and debris that is removed from the MS4 for each activity.
  4. Inform and involve individuals and households about the steps they can take to reduce storm water pollution;
  5. Inform individuals and groups on how to participate in the storm water program (with activities such as, but not limited to, local stream and lake restoration activities, storm water stenciling, advisory councils, watershed associations or committees, participation on rate structures, stewardship programs, and environmental related 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. On a quarterly basis at a minimum, the general public shall be educated on the general impacts litter has on waterbodies, how trash is delivered to streams via the MS4, and ways to reduce the litter;
      - b. General impacts of storm water flow into surface water from impervious surface;
      - c. Source control BMPs in areas of pet waste, vehicle maintenance, landscaping, and rainwater reuse; and
      - d. Impacts of illicit discharges and how to report them.
    - ii. General Public and Businesses to include Home-based and Mobile Businesses
      - a. BMPs for use and storage of automotive chemicals, hazardous cleaning supplies, carwash soaps and other hazardous materials; and
      - b. Impacts of illicit discharges and how to report them.
    - iii. Homeowners, Landscapers, and Property Managers
      - a. Yard care techniques that protect water quality;
      - b. BMPs for use and storage of pesticides, herbicides, and fertilizers;
      - c. Storm water pond maintenance; and
      - d. General impacts of storm water into surface water from impervious surface.

- iv. Engineers, Contractors and Developers, Review Staff, and Land Use Planners
  - a. Impacts of increased storm water flows into receiving waterbodies;
  - b. Technical standards for construction site sediment and erosion control;
  - c. Storm water treatment and flow control BMPs; and
  - d. Run-off reduction techniques and Low Impact Development (LID)/ Green Infrastructure (GI) practices that may include, but not limited to, site design, pervious pavement, alternative parking lot design, retention of forests and mature trees to assist in storm water treatment and flow control BMPs, and maintenance required for LID/GI.
- 6. Evaluate the effectiveness of the public education program and the public involvement program. If the Permittee determines any portion of the program (including BMPs) to be ineffective, then the Permittee shall update the SWMPP to address the ineffectiveness.
- 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, revision, 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 BMPs performed along with the quantity utilized (i.e. number of printed brochures, and the number distributed of newspaper copies, number of workshops hosted/attended, the number of public service announcements, etc.); and
  - 4. Results of the evaluation of the effectiveness for the public education program and public involvement program as required in Part II.B.2.b.6.;
- d. The current SWMPP and latest Annual Report should be posted on the Permittee's website, if available, and within 30 days of submittal of the SWMPP to the Department.

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

- a. The Permittee shall implement an ongoing program to detect and eliminate illicit discharges and improper disposal into the MS4, to the Maximum Extent Practicable. The program shall include, at a minimum, the following:
  - 1. The development and annual update of a MS4 map. An initial map shall be provided in the SWMPP with updates, if any, provided each year in the Annual report. The map shall include, at a minimum, the following:
    - 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, operated, or maintained by the Permittee.
  - 2. To the extent allowable under State law, an ordinance or other regulatory mechanism that effectively prohibits non-storm water discharges to the MS4. A copy of the IDDE ordinance or other regulatory mechanism location or a hyperlink to the location of the ordinance or other regulatory mechanism on the

Permittee's website shall be included in the SWMPP. The ordinance or other regulatory mechanism shall:

- a. Include escalating enforcement procedures and actions;
  - b. Require the removal of illicit discharges and the immediate cessation of improper disposal practices upon identification of responsible parties. Where the removal of illicit discharge within ten (10) working days is not possible, the ordinance shall require an expeditious schedule for removal of the discharge. In the interim, the ordinance shall require the operator of the illicit discharge to take all reasonable and prudent measures to minimize the discharge of pollutants to the MS4; and
  - c. Provide for the annual 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 all major outfalls at least once per year with all (100 percent) outfalls screened at least once per five (5) years. Priority areas, as described by the Permittee in the SWMPP, shall be dry weather screened on a more frequent schedule as outlined in the SWMPP. When determining priority areas, consider criteria such as, but not limited to, areas with older infrastructure, mixed-use areas, areas with a history of past illicit discharges, areas with on-sites sewage disposal systems, or areas upstream of sensitive waterbodies. 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. The SWMPP must address, at a minimum, the frequency of training and identifying the appropriate personnel by title to be trained during the permit cycle; 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. Total number of major outfalls within the MS4, the number and location of outfalls observed during the dry weather screening of the current year to

include any follow-up screenings and the number of outfalls observed in priority areas identified by the Permittee;

2. Updated MS4 map(s), as required by Part II.B.3.a.1. unless there are no changes to the map that was previously submitted. When there are no changes to the map, the Annual Report must state this;
3. Copies of the IDDE ordinance or other regulatory mechanism or provide a hyperlink for the ordinance or regulatory mechanism location on the Permittee's website. When there are no changes to the ordinance or other regulatory mechanism, the Annual Report must state this;
4. Date(s) of training conducted for appropriate personnel; and
5. The number of illicit discharges investigated, any associated sampling results, and the summary of corrective actions taken to include dates and timeframe of response.

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

- a. The Permittee shall further develop, revise, implement, and enforce an ongoing program to reduce, to the MEP, the pollutants in any storm water runoff to the MS4 from qualifying construction sites. The program shall include the following, at a minimum:
  1. Procedures to require all applicable construction sites to obtain coverage under ADEM NPDES General Permit ALR10000 or other applicable NPDES permits;
  2. To the extent allowed under State law, an ordinance or other regulatory mechanism to require effective erosion and sediment controls on qualifying construction sites, as well as sanctions to ensure compliance. The Permittee shall post on its website this ordinance or other regulatory mechanism;
  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 construction site plan review and approval to ensure the selection of effective erosion and sediment controls are 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 (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 shall also consider potential water quality impacts;
  5. A mechanism for the public to report complaints regarding pollution discharges from construction sites;
  6. Inspection of construction 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. AA.)	At a minimum, inspections must occur monthly
Other sites determined by the Permittee or Permitting Authority to be a significant threat to water quality*	
All qualifying construction sites not meeting the criteria specified above.	At a minimum, inspections must occur every two (2) months
*In evaluating the threat to water quality, the following factors must be considered, if applicable: soil erosion potential; site slope; project size and type; sensitivity of receiving waterbodies including 303d or TMDL status; 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. Inventory of active qualified construction sites that are updated as new qualified construction sites are commenced and completed. The inventory must contain relevant contact information for each site (e.g., tracking number, name, address, phone, etc.), the size of the project and area of disturbance, whether the site has submitted for permit coverage under the Alabama Construction Site General Permit, whether the qualified construction site is in a priority watershed, and the date the permittee approved the construction site plan. The Permittee must make this inventory available to Department upon request.
8. Training for the Permittee's MS4 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). Applicable MS4 site inspection staff shall be trained once per year, at a minimum;
9. Utilization of a construction site inspection checklist (paper and/or electronic);
10. Implementation of an Enforcement Response Plan (ERP), which sets out the Permittee's potential responses to violations through progressively stricter responses as needed to achieve compliance. The ERP shall include a system for tracking formal actions and ADEM referrals. Types of enforcement actions may include, but not limited to, the following:
  - a. Verbal Warnings—Verbal warnings are primarily consultative in nature and must specify the nature of the violation and required corrective action;
  - b. Written Notices—Written Notices must stipulate the nature of the violation and the required corrective action, with deadlines for taking such action; and
  - c. Escalated Enforcement Measures—Citations, stop work orders, withholding plan approvals/authorizations, monetary penalties, or additional measures to address persistent non-compliance, repeat or escalating violations or incidents of major environmental harm.

11. 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
  12. 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. A copy of the ordinance or other regulatory mechanism or hyperlink for the ordinance or regulatory mechanism location on the Permittee's website as required by Part II.B.4.a.2;
  2. Procedures for site plan reviews required by Part II.B.4.a.4;
  3. A construction site inspection schedule meeting the requirements of Part II.B.4.a.6;
  4. Training of MS4 site inspection staff as required by Part II.B.4.a.8;
  5. A copy of the construction site inspection checklist and/or screenshot of the electronic checklist as required by Part II.B.4.a.9;
  6. The ERP as required by Part II.B.4.a.10; and
  7. 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.11.
- c. The Permittee shall report each year in the Annual Report the following information:
1. A description of any completed or planned revisions to the ordinance or regulatory mechanism required by Part II.B.4.a.2 and include the most recent copy (or hyperlink to the most recent copy) 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 the inventory as required by Part II.B.4.a.7; and
  3. A summary of the following:
    - a. Number of construction site inspections;
    - b. Number of non-compliant construction site referrals and/or enforcement actions and description of violation;
    - c. Number of construction site runoff complaints received; and
    - d. Number of MS4 staff/inspectors trained. Include copies of certifications or attendance records for those MS4 staff/inspectors.
- d. The Permittee shall maintain the following information and make it available upon request:
1. Documentation of all inspections conducted of qualifying 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 condition of storm water BMPs 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; 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 site;
  - 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. Inventory of all completed qualified construction sites to include, at a minimum, the following:
- a. Name of owner/operator;
  - b. Owner/operator information (address, phone number, fax, and email); and
  - c. Location of the construction site.
4. 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.
5. 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 further develop, revise and implement a program to address the discharge of pollutants in post-construction storm water runoff to the MS4 from new development and re-development. Post-Construction Storm Water 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 (LID/GI) practices to obtain permanent

storm water management over the life of the property's use. These post-construction controls shall be considered during the initial site development phase.

a. The Permittee shall develop, update, and implement project review and enforcement procedures for qualifying new development and redevelopment projects, to the Maximum Extent Practicable. This program shall ensure that controls are in place to prevent or minimize water quality impacts. Specifically, the Permittee shall:

1. 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 not limited to, the following:
  - a. Minimizing the amount of new impervious surfaces (roads, parking lots, roofs, etc.);
  - b. Preserving and protecting ecologically sensitive areas that provide water quality benefits;
  - c. Providing vegetated buffers along waterways, and reduce discharges to surface waters from impervious surfaces such as parking lots;
  - d. Implementing policies to protect trees, native soils and other vegetation; and
  - e. Minimizing topsoil stripping and compacted soils where feasible.
2. Require landowners and developers to develop and maintain Best Management Practices to ensure, to the MEP, 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, where feasible, the use of Low Impact Development (LID)/Green Infrastructure (GI) which infiltrate, evapotranspire, harvest or reuse storm water. Information on Low Impact Development (LID)/Green Infrastructure (GI) is available on the following websites:  
<http://www.adem.alabama.gov/programs/water/waterforms/LIDHandbook.pdf>  
and <http://epa.gov/nps/iid>. The Permittee shall include a narrative description in the SWMPP as to the means taken to implement the requirement to encourage landowners and developers to incorporate the use of Low Impact Development (LID)/ Green Infrastructure (GI);
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 qualifying new development and redevelopment projects. The ordinance or regulatory mechanism shall be posted on the Permittee's website;
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, at a minimum, 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, 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;
  - g. Photographic documentation of all critical storm water BMP components;
  - h. Specific maintenance items or violations that need to be corrected by the owner/operator of the storm water control or BMP; and
  - i. Maintenance agreements for long-term BMP operations and maintenance.
8. The Permittee shall maintain or require the developer/owner/operator to keep records of post-construction inspections, maintenance activities and make them available to the Department upon request and require corrective actions to poorly functioning or inadequately maintained post-construction BMPs; and
9. The Permittee shall require and/or perform adequate long-term operation and maintenance of post-construction BMPs, including one or more of the following, as applicable:
- a. The developer's signed statement accepting responsibility for maintenance until the maintenance responsibility is legally transferred to another party; and/or
  - b. Written conditions in the sales or lease agreement that require the recipient to assume responsibility for maintenance; and/or
  - c. Written conditions in project conditions, covenants and restrictions for residential properties assigning maintenance responsibilities to a homeowner's association, or other appropriate group, for maintenance of structural and treatment control management practices; and/or
  - d. Any other legally enforceable agreement that assigns permanent responsibility for maintenance of structural or treatment control management practices.
- b. The Permittee shall include within the SWMPP the following information:
- 1. Copies of the ordinance or other regulatory mechanism or hyperlink for the ordinance or regulatory mechanism location on the Permittee's website as required by Part II.B.5.a.4;
  - 2. Procedures to develop, implement, and enforce systems of appropriate structural and/or non-structural BMPs;
  - 3. Procedures to develop, implement and enforce performance standards;
  - 4. Procedures and schedule for development of Low-Impact Development LID/Green Infrastructure (GI) standards;

5. Procedures to ensure compliance with the ordinance or regulatory mechanism, including the sanctions and enforcement mechanisms the Permittee will use to ensure compliance; If an ordinance or regulatory mechanism needs to be developed, then the Permittee must provide a timeline for the development of the ordinance and/or regulatory mechanism;
  6. Procedures for post-construction inspections, to include tracking and enforcement;
  7. Procedures to ensure adequate long-term operation and maintenance of BMPs; and
  8. Development of an inventory of post-construction structural controls. This inventory shall be updated annually, as needed.
- c. The Permittee shall report each year in the Annual Report the following information:
1. Provide a hyperlink for the ordinance or regulatory mechanism location on the Permittee's website;
  2. A list of the post-construction structural controls installed and inspected during the permit year. The list shall include which post-construction structural controls installed are considered Low Impact Development (LID)/ Green Infrastructure (GI), if applicable;
  3. Updated inventory of post-construction structural controls including those owned by the Permittee;
  4. Number of inspections performed on post-construction structural controls; and
  5. Summary of enforcement actions, if applicable.

## 6. Spill Prevention and Response

- a. The Permittee shall further develop, revise, and implement a program to prevent, contain, and respond to spills that may discharge into the MS4. The Permittee must, at a minimum:
1. Investigate, respond, and conduct response actions or coordinate with other agencies that may provide response actions as outlined in the SWMPP;
  2. Track spills, response, and cleanup activities for reportable spills that may discharge to the MS4;
  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 annually, at a minimum, of appropriate personnel in spill prevention and response procedures and techniques to mitigate pollutant discharges from spills to the MS4;

6. Establish procedures to ensure that all spills can be promptly reported to appropriate authority.
- b. The Permittee shall include within the SWMPP the following information:
  1. List of agencies that the Permittee may coordinate response actions with regarding spills as required by Part II.B.6.a.1;
  2. The spill prevention/spill response plan as required by Part II.B.6.a.4; and
  3. Procedures to provide training, at a minimum, 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, if allowed) ; 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.5 shall be kept on file and available when requested by the Department:
    - a. Description of the training curriculum or materials used; and
    - b. Dated records of attendance.

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

- a. The Permittee shall re-evaluate, revise, implement, and maintain a program that will prevent or reduce the discharge of pollutants in storm water run-off from municipal operations to the MEP. The program elements shall include, at a minimum, the following:
  1. An inventory (to include name and location) of all municipal facilities. Evaluate and determine which 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 prevention and removal of trash from entering into the waterways and tributaries from the MS4 within the permitted area in such a manner to estimate the removal of trash per year, which shall be included in the Annual Report. If a BMP is determined to be ineffective or infeasible, then an alternate BMP must be implemented. This program shall be outlined within the Permittee's SWMPP and must be updated as necessary. This program shall address the following, at a minimum:
    - a. Arrangement for the temporary protection of preventative measures to catch basins, where feasible, and 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;
    - b. Direct removal of trash from waterbodies, public areas, and right-of-ways, if applicable;

- c. Provide and maintain proper trash receptacles, especially within areas identified as high- traffic/high-trash generated areas during special events to include timely trash removal;
    - d. Prevention through disposal alternatives; and
    - e. Prevention through waste reduction practices, additional enforcement, and/or initiatives.
  - 3. A Standard Operating Procedures (SOP) detailing good housekeeping practices to be employed at municipal facilities (those that have the potential to discharge pollutants via storm water runoff) and during municipal operations that may include, but not limited to, the following:
    - a. Equipment washing;
    - b. Street sweeping;
    - c. Maintenance of municipal roads including public streets, roads and highways, and unpaved roads owned, operated, or under the responsibility of the Permittee;
    - d. Storage, use, and disposal of chemicals, Pesticides, Herbicides, Fertilizers (PHFs), 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.
  - 4. A program for inspecting municipal facilities at a minimum of annually, 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;
  - 5. A training program for municipal facility staff in good housekeeping practices as outlined in the SOP developed pursuant to Part II.B.7.a.3 The training shall be provided to municipal facility staff at a minimum of annually; and
  - 6. 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. Evaluate and include a discussion of how effectiveness is measured for Part II.B.7.a.2
    - 3. Schedule for developing the SOPs for good housekeeping practices required by Part II.B.7.a.3;
    - 4. An inspection plan and schedule (frequency), including checklists and any other materials needed to comply with Part II.B.7.a.4; and
    - 5. A description of the training program and training schedule, including frequency, required by Part II.B.7.a.5.
  - 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;
  3. Any updates to the inspection plan;
  4. Any updates to the SOP of good housekeeping practices;
  5. Summary of inspection reports of municipal facilities; and
  6. Results of the evaluation of the effectiveness of the Pollution Prevention/Good Housekeeping program.
- 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 from the MS4 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 within the SWMPP to include the following, at a minimum:
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. Annual inspection and monitoring of facilities where PHFs are stored; and
  7. Record keeping.

- b. The Permittee shall report each year in the Annual Report the following information:
  - 1. The areas within the MS4 jurisdiction that received high applications of PHFs;
  - 2. A list of personnel certified and trained on proper PHF application;
  - 3. An inventory of on-hand PHFs; and
  - 4. Inspections of the facilities where PHFs are stored.

**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. Annual, at a minimum, inspections of municipal maintenance shops and equipment yards;
  - 3. Advertise the location of used oil collection facilities; and
  - 4. Provide employee training, at a minimum of annually, 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 further, develop, revise, 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;
  - 2. Oils, Toxics, and Household Hazardous Waste Control training workshops
    - a. Dated attendance sheet; and
    - b. Titles of presentations.
  - 3. Inspection reports of municipal maintenance shops and equipment yards.

**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 EPCRA Title III, Section 313 facilities that do not have an NPDES permit issued by the Department as outlined in the SWMPP;
  3. During the permit term, inspections of industrial facilities and high-risk commercial facilities that do not have a NPDES permit issued by the Department as outlined in the SWMPP;
  4. 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 industrial facility to conduct self-monitoring to satisfy this requirement, if necessary.
  5. Within 365 days of the effective date of this permit, provide training for personnel conducting inspections as required in Part II.B.10.a.1. and Part II.B.10.a.2. The training frequency shall be specified in the SWMPP.
- 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 Emergency Planning and Community Right to Know Act (EPCRA) Title III, Section 313 facilities, within the MS4.
  - c. The Permittee shall include in the Annual Report a list of the industrial facilities and high-risk commercial facilities inspected and corrective actions taken, if applicable.

### ***C. Legal Authority***

To the extent allowed under State law, the Permittee must annually review and revise, as necessary, 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. Enter private property for the purpose of inspecting and monitoring 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 Review and Modification***

1. The Permittee shall submit to the Department within nine (9) 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, revision, and implementation of this SWMPP, as required by Part II.B.2.b.1. Thereafter, the Permittee shall perform an annual review, at a minimum, 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 and the Permittee's website shall be updated with the revised version of the SWMPP.
2. The Permittee may modify the SWMPP at any time during the life of the permit. Any modifications must be submitted to the Department at the time the modification is made and shall be included in the subsequent Annual Report. 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.
3. 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, but no later than one (1) year from the addition of new areas. 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 or is included in an EPA-approved or EPA-established TMDL;
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 waterbody 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, then 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.
    1. 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.
    2. 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 (1) 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	Quarterly
Cahaba Valley Creek	Quarterly
Peavine Creek	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. Temperature;
  - b. pH/ORP;
  - c. Turbidity (NTU);
  - d. Conductivity;
  - e. Dissolved Oxygen (mg/l);
  - f. Ammonia Nitrogen (NH<sub>3</sub>-N) (mg/l);
  - g. Biochemical Oxygen Demand (BOD) (mg/l);
  - h. Chemical Oxygen Demand (COD) (mg/l);
  - i. E.coli;
  - j. Hardness as CaCO<sub>3</sub> (mg/l);
  - k. Nitrate plus Nitrite Nitrogen (NO<sub>3</sub>+NO<sub>2</sub>-N) (mg/l);
  - l. Oil and Grease (mg/l);
  - m. Total Dissolved Solids (TDS) (mg/l);
  - n. Total Kjeldahl Nitrogen (TKN) (mg/l);
  - o. Total Nitrogen (TN) (mg/l);
  - p. Total Phosphorus (mg/l);

- q. Total Suspended Solids (TSS) (mg/l); and
2. The Permittee shall 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 (2) 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 water quality data at an instream monitoring station due to equipment malfunction, maintenance, and/or damage, the Permittee must include a description of why water quality data could not be collected, including available documentation in the Annual Report;
5. If the Permittee is unable to collect grab samples due to adverse conditions, the Permittee shall 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.); and
6. Monitoring results must be reported with the subsequent Annual Report and shall include the following monitoring information:
  - a. The date, latitude/longitude of location, and time of sampling;
  - b. The name(s) of the individual(s) who performed the sampling;
  - c. The date(s) analysis was performed;
  - d. The name(s) of individual(s) who performed the analysis;
  - e. The analytical techniques or methods used; and
  - f. The results of such analysis.

**PART IV Annual Reporting Requirements**

1. The Permittee shall submit to the Department an Annual Report and all other documents via the Alabama Environmental Permitting and Compliance System (AEPACS) no later than January 31 of each year. AEPACS can be accessed at the following link: <https://adem.alabama.gov/AEPACS>. The Annual Report shall cover the previous fiscal year beginning October 1 through September 30, and annually thereafter.
2. The Permittee shall sign and certify the Annual Report in accordance with Part V.M. of this permit. If the Responsible Official has designated a Duly Authorized Representative (DAR) in accordance with Part V.M., to sign the Annual Report, then include a copy of the written designation with the Annual Report.

3. 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;
    6. Required actions that were not performed, and reasons why the actions were not accomplished; and
    7. If monitoring is required, an evaluation of the monitoring data.
  - 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 program elements. Explanation for all program 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 program element revisions.
  - d. Notice of reliance on another entity to satisfy some of the permit obligations;
  - e. Results of the evaluation to determine whether discharges from any part of the MS4 contributes directly or indirectly to a waterbody that is included on the 303(d) list (or designated by the Department as impaired) or for which a TMDL has been established or approved by EPA;

- f. 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 (5) 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 electronically via AEPACS 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.
- g. 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;
- h. Provide a summary of inspections and enforcement actions for the regulatory program. Enforcement actions should include a corrective actions summary;
- i. Implementation status of the public education programs; and
- j. 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.M. of this permit.

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

The Permittee must complete and submit individual application electronically, and a description of your SWMP as allowed under Part II.A., signed in accordance with the signatory requirements of Part V.M of this permit, to the Department via the Alabama Environmental Permitting and Compliance System (AEPACS) unless the Permittee submits in writing valid justification as to why the electronic submittal cannot be utilized and the Department approves

in writing the utilization of hard copy submittals. The AEPACS can be accessed at the following link: <https://adem.alabama.gov/AEPACS>. Permit requests for initial issuance and modifications of the existing permit shall all be submitted through the AEPACS.

Requests as to why AEPACS cannot be utilized shall be addressed to:

Alabama Department of Environmental Management  
Storm Water 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  
Storm Water 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 (5) years after coverage under this permit terminates. The Permittee shall retain all records of 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 (3) 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. Bypass***

- a. Any bypass as defined in 40 CFR 122.41(m) is prohibited except as provided in Part V.I.b. and c.
- b. A bypass is not prohibited if:
  1. It does not cause any applicable discharge limitation, if specified in this Permit, to be exceeded;
  2. The discharge resulting from such bypass enters the same receiving water as the discharge from the permitted outfall, if applicable;
  3. It is necessary for essential maintenance of a treatment or control facility or system to assure efficient operation of such facility or system, if applicable; and
  4. The Permittee monitors the discharge resulting from such bypass at a frequency, at least daily, sufficient to prove compliance with the discharge limitations, if specified in this Permit.
- c. A bypass is not prohibited and need not meet the discharge limitations, if specified in this Permit, if:
  1. It is unavoidable to prevent loss of life, personal injury, or severe property damage;
  2. There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if the Permittee could have installed adequate backup equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

3. The Permittee submits a written request for authorization to bypass to the Director at least ten (10) days, if possible, prior to the anticipated bypass or within 24 hours of an unanticipated bypass, the Permittee is granted such authorization, and Permittee complies with any conditions imposed by the Director to minimize any adverse impact to waters resulting from the bypass.
- d. The Permittee has the burden of establishing that each of the conditions of Parts V.I.b. or c. have been met to qualify for an exception to the general prohibition against bypassing contained in Part V.I.a. and an exemption, where applicable, from the discharge limitations, if specified in this Permit.

***J. Upset***

- a. Except as provided in Part V.I.b. and c., a discharge which results from an upset as defined in 40 CFR 122.41(n) need not meet the applicable discharge limitations, if specified in this Permit, if:
  1. No later than 24-hours after becoming aware of the occurrence of the upset, the Permittee orally reports the occurrence and circumstances of the upset to the Director; and
  2. No later than five (5) days after becoming aware of the occurrence of the upset, the Permittee furnishes the Director with evidence, including properly signed, contemporaneous operating logs, design drawings, construction certification, maintenance records, weir flow measurements, dated photographs, rain gauge measurements, or other relevant evidence, demonstrating that:
    - i. An upset occurred;
    - ii. The Permittee can identify the specific cause(s) of the upset;
    - iii. The Permittee's treatment facility was being properly operated at the time of the upset; and
    - iv. The Permittee promptly took all reasonable steps to minimize any adverse impact to waters resulting from the upset.
- b. The Permittee has the burden of establishing that each of the conditions of Part V.J.a. has been met to qualify for an exemption from the discharge limitations, if specified in this Permit.

***K. 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.

***L. 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.

**M. *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."

**N. *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.

**O. *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.

**P. *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.

**Q. *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.

**R. *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.

**S. *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.

**T. *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.

**U. *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.

**V. *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.

**W. *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.W.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.W.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.

**X. *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.

**Y. *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.

**Z. *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.

**AA. *Definitions***

1. "Alabama Handbook" means the latest edition of the Alabama Handbook for Erosion Control, Sediment Control, and Storm Water Management on Construction Sites and Urban Areas, Alabama Soil and Water Conservation Committee (ASWCC) published at the time the permit is effective.
2. "Arithmetic Mean" means the summation of the individual values of any set values divided by the number of individual values.
3. "AWPCA" means Code of Alabama 1975, Title 22, the Alabama Water Pollution Control Act, as amended.
4. "Best Management Practices" (BMPs) means activities, prohibitions of practices, maintenance procedures, and other management practices implemented to prevent or reduce the discharge of pollutants to waters of the State. BMPs also include treatment systems, operating procedures, and practices to control facility runoff, spillage or leaks, sludge or water disposal, or drainage from raw material storage.
5. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
6. "Control Measure" as used in this permit, refers to any Best Management Practice or other method used to prevent or reduce the discharge of pollutants to waters of the State.
7. "CWA" or "The Act" means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub.L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483 and Pub. L. 97-117, 33 U.S.C. 1251 et.seq.
8. "Department" means the Alabama Department of Environmental Management or an authorized representative.

9. "Discharge", when used without a qualifier, refers to "discharge of a pollutant" as defined as ADEM Administrative Code 335-6-6-.02(m).
10. "Flood Management Project" means a project that will alter, modify or change the base flood elevation of a 1% annual chance flood event.
11. "Flow-weighted composite sample" means a composite sample consisting of a mixture of aliquots collected at a constant time interval, where the volume of each aliquot is proportional to the flow rate of the discharge at the time of sampling.
12. "Green Infrastructure" refers to systems and practices that use or mimic natural processes to infiltrate, evapotranspiration (the return of water to the atmosphere either through evaporation or by plants), or reuse storm water or runoff on the site where it is generated.
13. "Hydrology" refers to the physical characteristics of storm water discharge, including the magnitude, duration, frequency, and timing of discharge.
14. "Illicit connection" means any man-made conveyance connecting a non-storm water discharge directly to a Municipal Separate Storm Sewer System.
15. "Illicit discharge" means any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the MS4) and discharges resulting from firefighting activities.
16. "Industrial Land Use" means land utilized in connection with manufacturing, processing, or raw materials storage at facilities identified under Alabama State Law.
17. "Infiltration" means water other than wastewater that enters a sewer system, including foundation drains, from the ground through such means as defective pipes, pipe joints, connections, or manholes. Infiltration does not include, and is distinguished from, inflow.
18. "Landfill" means an area of land or an excavation in which wastes are placed for permanent disposal, and which is not a land application unit, surface impoundment, injection well, or waste pile.
19. "Large" municipal separate storm sewer system means all municipal separate storm sewers that are either: (i) located in an incorporated place (city) with a population of 250,000 or more as determined by the latest decennial census; or (ii) located in counties (these counties are listed in Appendix H of 40 CFR Part 122, except municipal storm sewers that are located in the incorporated places, townships or towns within such counties; or (iii) owned or operated by a municipality other than those described in Part V.AA.19.(i) or (ii) and that are designated by the Director as part of the large or medium municipal separate storm sewer system; or (iv) the Director may designate as a large municipal separate storm sewer system, municipal separate sewers located within the boundaries of a region defined by a storm water management regional authority based on a jurisdictional, watershed, or other appropriate basis that includes one or more of the systems described in Part V.AA.19.(i), (ii), or (iii).
20. "Low Impact Development" (LID) is an approach to land development (or re-development) that works with nature to manage storm water 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 storm water as a resource rather than a waste product.

21. "Major outfall" is the point(s) where the MS4 discharges to a water of the State from (1) a pipe (or closed conveyance) system with a cross-sectional area equal to or greater than 7.07 square feet (e.g., if a single circular pipe system, an inside diameter of 36 inches or greater),(2) a single conveyance other than a pipe, such as an open channel ditch, which is associated with a drainage area of more than 50 acres,(3) a pipe (or closed conveyance) system draining "industrial land use" with a cross-sectional area equal to or greater than 0.79 square feet (e.g., if a single circular pipe system, an inside diameter of 12 inches or greater),(4) or a single conveyance other than a pipe, such as an open channel ditch, which is associated with an "industrial land use" drainage area of more than 2 acres; For the purpose of this permit, outfalls of the "double barrel" type, whose combined cross-sectional area is greater than 7.07 square feet, equivalent to a single circular pipe outfall with an inside diameter of 36 inches or greater, are also considered major outfalls.
22. "MEP" is an acronym for "Maximum Extent Practicable," the technology-based discharge standards and controls necessary for municipal separate storm sewer systems to reduce pollutants in storm water discharges that was established by CWA Section 402(p). These standards and controls may consist of a combination of best management practices, control techniques, system design and engineering methods, and such other provisions for the reduction of pollutants discharged from a MS4 as described in the storm water management system.
23. "Medium" municipal separate storm sewer system means all municipal separate storm sewers that are either: (i) located in an incorporated place (city) with a population of 100,000 or more but less than 250,000 as determined by the latest decennial census; or (ii) located in counties (these counties are listed in Appendix I of 40 CFR Part 122), except municipal storm sewers that are located in the incorporated places, townships or towns within such counties; or (iii) owned or operated by a municipality other than those described in Parts V.AA.23.(i) and (ii) and that are designated by the Director as part of the large or medium municipal separate storm sewer system; or (iv) the Director may designate as a medium municipal separate storm sewer system, municipal storm sewers located within the boundaries of a region defined by a storm water management regional authority based on a jurisdictional, watershed, or other appropriate basis that includes one or more of the systems as described in Parts V.AA.23.(i), (ii), or (iii).
24. "MS4" is an acronym for "Municipal Separate Storm Sewer System" and is used to refer to either a large, medium, or small municipal separate storm sewer system. The term is used to refer to either the system operated by a single entity or a group of systems within an area that are operated by multiple entities.
25. "Municipal Separate Storm System" is defined at 40 CFR Part 122.26(b)(8) and means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States; (ii) Designed or used for collecting or conveying storm water; (iii) Which is not a combined sewer; and (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined in ADEM Administrative Code 335-6-6-.02(nn).
26. "Permittee" means each individual co-applicant for an NPDES permit who is only responsible for permit conditions relating to the discharge that they own or operate.
27. "Point Source" means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other

floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

28. "Priority Construction Site" means any qualifying construction site in an area where the MS4 discharges to a waterbody which is listed on the most recently approved 303(d) list of impaired waters for turbidity, siltation, or sedimentation, any waterbody for which a TMDL has been finalized or approved by EPA for turbidity, siltation or sedimentation, any waterbody assigned the Outstanding Alabama Water use classification in accordance with ADEM Admin. Code r. 335-6-10-.09, and any waterbody assigned a special designation in accordance with 335-6-10-.10.
29. "Qualifying Construction Site" means any construction activity that results in a total land disturbance of one or more acres and activities that disturb less than one acre but are part of a larger common plan of development or sale that would disturb one or more acres. Qualifying construction sites do not include land disturbance conducted by entities under the jurisdiction and supervision of the Alabama Public Service Commission.
30. "Qualifying New Development and Redevelopment" means any site where construction commenced on or after November 30, 2017 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 the following:
  - a. Land disturbances conducted by entities under the jurisdiction and supervision of the Alabama Public Service Commission; or
  - b. An existing development that has been constructed or approved prior to November 30, 2017.
31. "Storm Water" is defined at 40 CFR Part 122.26(b)(13) and means storm water runoff, snow melt runoff, and surface runoff and drainage.
32. "Storm Water Management Program" (SWMP) refers to a comprehensive program to manage the quality of storm water discharged from the municipal separate storm sewer system.
33. "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.
34. "Structural Flood Control" means structural measures that control the 1% annual chance floodwaters by construction of barriers, storage areas or by modifying / redirecting channels.
35. "SWMP" is an acronym for "Storm Water Management Program."
36. "Total Maximum Daily Load" (TMDL) means the calculated maximum permissible pollutant loading to a waterbody at which water quality standards can be maintained. The sum of Wasteload Allocations (WLAs) and load allocations (LAs) for any given pollutant.

**FACT SHEET**

**APPLICATION FOR  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM  
PERMIT TO DISCHARGE TO WATERS OF  
THE STATE OF ALABAMA**

**CITY OF PELHAM MS4**

**Date:** January 18, 2022

**Prepared By:** Melanie Ratcliffe

**NPDES Permit No.** ALS000009

**1. Description of Category:**

This Permit applies to the municipal separate storm sewer (MS4) which is owned, operated and/or maintained by the City of Pelham that is in the corporate boundaries of the City of Pelham.

**2. Geographic area covered:**

State of Alabama

**3. Receiving waters:**

Waterbodies within the corporate boundaries of the City of Pelham.

**4. Types of discharge:**

The permit authorizes all existing or new storm water point source discharges to waterbodies within the corporate boundaries of the City of Pelham. 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.

**5. Permit Conditions:**

The permit conditions are based on 40 CFR 122.26 and ADEM Admin. Code r. 335-6.

**6. Procedures for the formulation of final determinations:**

**a. Comment Period**

The Alabama Department of Environmental Management proposes to issue NPDES permit subject to the limitations and special conditions outlined above. This determination is tentative.

Interested persons are invited to submit written comments on the proposed permit to the following address:

Jeffery W. Kitchens, Chief  
Water Division  
Alabama Department of Environmental Management  
1400 Coliseum Blvd.  
(Mailing Address: Post Office Box 301463; Zip 36130-1463)  
Montgomery, Alabama 36110-2400  
(334) 271-7823  
water-permits@adem.alabama.gov

All comments received prior to the closure of the public notice period (see attached public notice) will be considered in the formulation of the final determination with regard to this permit.

**b. Public Hearing**

A written request for a public hearing may be filed within the public notice period and must state the nature of the issues proposed to be raised in the hearing. A request for a hearing should be filed with the Department at the following address:

Jeffery W. Kitchens, Chief  
Water Division  
Alabama Department of Environmental Management  
1400 Coliseum Blvd.  
(Mailing Address: Post Office Box 301463; Zip 36130-1463)  
Montgomery, Alabama 36110-2400  
(334) 271-7823  
water-permits@adem.alabama.gov

The Director shall hold a public hearing whenever it is found, on the basis of hearing requests, that there exists a significant degree of public interest in a permit application or draft permit. The Director may hold a public hearing whenever such a hearing might clarify one or more issues involved in the permit decision. Public notice of such a hearing will be made in accordance with ADEM Admin. Code r. 335-6-6-.21.

**c. Issuance of the Permit**

All comments received during the public comment period shall be considered in making the final permit decision. At the time that any final permit decision is issued, the Department shall prepare a response to comments in accordance with ADEM Admin. Code r. 335-6-6-.21. **The Permittee's application (fourth year annual report) and the permit record, including the response to comments, will be available to the public via the eFile system (<http://app.adem.alabama.gov/eFile/>) or an appointment to review the record may be made by writing the Permits and Services Division at the above address.**

Unless a request for a stay of a permit or permit provision is granted by the Environmental Management Commission, the proposed permit contained in the Director's determination shall be issued and effective, and such issuance will be the final administrative action of the Alabama Department of Environmental Management.

**d. Appeal Procedures**

As allowed under ADEM Admin. Code chap. 335-2-1, any person aggrieved by the Department's final administrative action may file a request for hearing to contest such action. Such requests should be received by the Environmental Management Commission within thirty days of issuance of the permit. Requests should be filed with the Commission at the following address:

Alabama Environmental Management Commission  
1400 Coliseum Blvd.  
(Mailing Address: Post Office Box 301463; Zip 36130-1463)  
Montgomery, Alabama 36110-2400

All requests must be in writing and shall contain the information provided in ADEM Admin. Code r. 335-2-1-.04.

**NPDES PERMIT RATIONALE  
CITY OF PELHAM  
MS4 NPDES Permit**

NPDES Permit No: **ALS000009** Date: January 18, 2022

Permit Applicant: City of Pelham

Location: This Permit applies to the corporate boundaries of the City of Pelham.

Draft Permit is: Initial Issuance:  
Reissuance due to expiration: X  
Modification of existing permit:  
Revocation and Reissuance:

Introduction: This permit requires implementation of the MS4 program under the State and Federal NPDES regulations. The Permittee is currently operating under the MS4 Phase I NPDES Permit ALS000009. The Permittee's application is the fourth year MS4 Annual Report and can be found on ADEM's FileNet system called eFile (<http://app.adem.alabama.gov/eFile/>) under the Permittee's NPDES Permit No. ALS000009. This proposed permit is a permit reissuance and requires the Permittee to develop, implement, and enforce a Storm Water Management Program (SWMP) designed to reduce the discharge of pollutants to the maximum extent practicable using the minimum control measures to protect water quality and to satisfy the appropriate water quality requirements of the Clean Water Act. The Permittee must also develop a Storm Water Management Program Plan (SWMPP) to describe in detail the measures for implementation and maintenance of the SWMP. The minimum control measures include the following: Structural Controls; Public Education and Public Involvement on Storm Water Impacts; Illicit Discharge Detection and Elimination (IDDE); Construction Site Storm Water Runoff Control; Post-Construction Storm Water Management for New Development and Re-Development; Pollution Prevention/Good Housekeeping. The Permittee must submit an annual report that includes documentation of the six (6) minimum control measures used by the Permittee to reduce the discharge of pollutants to waterbodies to the maximum extent practicable. The Permittee is required to develop and implement a monitoring plan for streams receiving MS4 discharges in order to provide data to be used to assess the effectiveness and adequacy of BMPs implemented under the SWMPP. This would include MS4 discharges to an impaired waterbody, as listed on the State of Alabama's 303(d) list, or MS4 discharges into a waterbody with an Environmental Protection Agency (EPA)-established and/or EPA-approved Total Maximum Daily Load (TMDL).

State and Federal Permit Requirements: This permit implements applicable requirements of 40 CFR Part 122.26

Permit Procedures: This draft permit has been developed in accordance with all applicable procedures of ADEM Admin. Code r. 335-6-6.

Effluent Standards and Limitations: This permit requires that any discharges associated with the regulated MS4 be consistent with TMDLs established and/or approved by the EPA in addition to applicable State Water Quality Standards. This permit also requires that controls (including the minimum control measures listed above) be developed and implemented to reduce the discharge of pollutants.

Prepared by: Melanie Ratcliffe

**STORM WATER MANAGEMENT PROGRAM PLAN**  
**City of Pelham MS4**

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**APPENDIX 8**

City of Pelham Cleanliness of Premises Ordinance

## ORDINANCE NO. 449

**AN ORDINANCE TO CHANGE THE TITLE OF CHAPTER 8 OF THE CODE OF ORDINANCES, CITY OF PELHAM, ALABAMA, TO AMEND ORDINANCE NUMBER 61-B, AS PREVIOUSLY AMENDED BY ORDINANCE NUMBER 394, CODIFIED AT CHAPTER 8, ARTICLE II, SECTIONS 8-20 THROUGH 8-26, AND TO ADD SECTION 8-27.**

Whereas, the City of Pelham has determined that it is in the best interests of the City to change the title of Chapter 8, to amend Chapter 8, Article II, Sections 8-20 through 8-26, and to add Section 8-27 of the Code of Ordinances, City of Pelham, Alabama,

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

The title of Chapter 8 of the Code of Ordinances, City of Pelham, Alabama, shall read as follows: Chapter 8 – Health, Sanitation, and Blight.

Chapter 8, Article II, Sections 8-20 through 8-26 are hereby amended to read as follows:

**Sec. 8-20. Nuisance or blight generally; constitutes a misdemeanor.**

Any person who creates or causes, or who, being the owner or agent in control, permits any nuisance or blight, or the existence of anything likely to be prejudicial to the health or comfort, or otherwise offensive to the senses of the ordinary citizen on or about any lot, place or premises is guilty of a misdemeanor. Blight shall mean the degradation of a landscape or urban areas as a result of neglect. Nuisance shall mean a condition, activity, or situation that is annoying, unpleasant, or obnoxious and which interferes with the use or enjoyment of property.

**Sec. 8-21. Duty to keep premises free of refuse, offensive substances and weeds.**

It shall be the duty of the owner, proprietor or person in charge or control of any lot, place or premises in the city, to keep and maintain the same, with the adjacent sidewalk, clean and free from rubbish, waste and offensive material and substances, and when such lot, place or premises is not under cultivation for useful and productive purposes, to keep the same free from weeds, shrubs and other vegetable growth higher than 12 inches. Each day such rubbish, waste, offensive materials, weeds, shrubs or other vegetable growth exist in violation of this section shall constitute a separate offense.

**Sec. 8-22. Accumulations unlawful.**

It shall be unlawful for any person to permit such person's premises, whether or not vacant, to accumulate a growth of weeds, bottles, tin cans, brush, trash, rubbish or anything that will, or is likely to, constitute a health hazard or nuisance or blight by raising or harboring mosquitoes, flies, rats, fleas, snakes, or the decaying of any such accumulations so as to create an obnoxious odor.

**Sec. 8-23. Maximum height of weeds.**

Any growth of weeds more than one foot in height shall be deemed favorable to the raising or harboring of mosquitoes, flies, rats, fleas or snakes within the meaning of this article.

**Sec. 8-24. Unfavorable appearance.**

It shall be the duty of the owner, proprietor or person in charge or control of any lot, building or establishment, place or premises in the city to keep or maintain the same in an orderly or tasteful manner or fashion. Said premises shall be maintained in such a condition so as not to constitute an eyesore or unfavorable appearance or dangerous condition, including any rotting, deteriorating or decaying building structural or finish components, any broken windows, any unpainted, decaying or unused automobile or other vehicle, or rubbish or any other condition offensive to the appearance of said premises. Each day such premises exists in violation of this section shall constitute a separate offense.

**Sec. 8-25. Abatement – Performance by city.**

Should the owner or person in charge or control of premises subject to conditions described in this article fail or refuse to abate such nuisance or blight or remove such weeds, rubbish or other offensive material or substance upon being notified to do so by ten days' written notice by the chief of police or his designees, then the city is hereby authorized to do such work at the expense of the owner of such property, the cost thereof to be a lien upon the property and to be collected as any other debts are collected or liens enforced.

**Sec. 8-26. Same – Punishment for failure.**

Any person who is found to be in willful violation of this article or who fails to abate the nuisance or blight within ten days after written notice by the chief of police or his designees shall be guilty of a misdemeanor.

Section 8-27 is hereby added to read as follows:

**Sec. 8-27. Related Code Sections.**

The following code sections are provided for reference only. The full content of the referenced section should be used in combination with the complete body of the code to identify specific applicability and requirements.

Dangerous Buildings – Chapter 4, Article II, Sections 4-20 through 4-39

Abandoned, Lost, Stolen, Inoperative, etc., Vehicles – Chapter 8, Article III, Sections 8-31 through 8-60

Off-street Parking and Loading Requirements – Zoning – Article XXIII, Sections 1.0 through 4.2

Permit expiration – Currently adopted International Residential Code, International Building Code, and International Fire Code

This ordinance shall become effective upon its passage and publication or posting as required by law.

THEREUPON Steve Powell, a member moved and Karyl Rice, a member seconded the move that said Ordinance 449 be given vote. The roll call vote on said motion was as follows:

Teresa Nichols President of the Council	Yes _____
Ron Scott Council Member	Yes _____
Bill Meadows Council Member	Yes _____
Steve Powell Council Member	Yes _____

Karyl Rice  
Council Member

Yes  
\_\_\_\_\_

Said Ordinance passed by majority vote of all members of the Council present and the Council President declared the same passed.

ADOPTED and approved this 6th day of August, 2012.



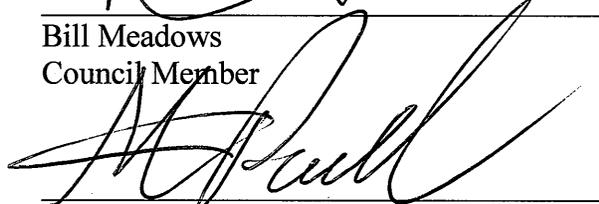
Teresa Nichols  
President of the Council



Ron Scott  
Council Member



Bill Meadows  
Council Member



Steve Powell  
Council Member

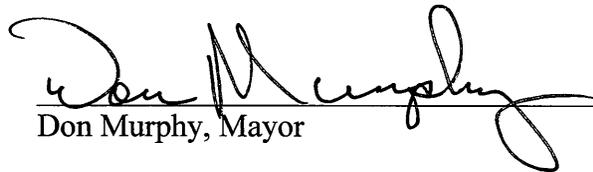


Karyl Rice  
Council Member



Tom Seale, CMC, City Clerk

APPROVED:



Don Murphy, Mayor

### POSTING AFFIDAVIT

I, the undersigned, Clerk of the City Council of the City of Pelham, Alabama, do hereby certify that the above and foregoing ORDINANCE 449 was duly ordained, adopted, and passed by the City Council of the City of Pelham, Alabama at its regular meeting on the 6th day of August, 2012, and duly published by posting an exact copy thereof on the 7th day of August, 2012, at three public places within the city, including the Mayor's Office at City Hall, City Park and Library, all being public places in the City of Pelham, Alabama.



Tom Seale, CMC, City Clerk

