



STORM WATER MANAGEMENT PROGRAM PLAN
January 2020

Prepared For
City of Irondale
101 20th Street South
Irondale, Alabama 35210

Prepared by
Jefferson County Department of Health
1400 Sixth Avenue South
Birmingham, Alabama 35233
(205) 930-1230

Signatory and Certification Requirements:

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.

Charles Moore
Mayor, City of Irondale

Date

Address: 101 20th Street South
Irondale, Alabama 35210

Phone: (205) 956-9200

CONTENTS

INTRODUCTION.....	8
Regulatory Overview.....	8
MS4 Jurisdictional Boundary	9
LEGAL AUTHORITY AND ENFORCEMENT.....	9
STORM WATER COLLECTION SYSTEMS OPERATIONS.....	14
Structural Controls Mapping.....	14
Structural Controls Inspection	14
Standard Operating Procedure (SOP) for Structural Control Inspection and Maintenance Procedures.....	14
Stabilization and Re-Vegetation of Eroded Areas.....	14
Floatables, Litter, Sediment and Debris in Structural Controls	15
PUBLIC EDUCATION AND PUBLIC INVOLVEMENT ON STORM WATER IMPACTS 	16
Development and Implementation of the SWMPP	16
Public Access to City Storm Water Documents.....	16
Targeted Pollutant Sources for Public Education	16
Reduction of Litter Floatables and Debris	16
Educating Individuals and Households on Reducing Storm Water Pollution	16
Community Involvement with the Storm Water Program.....	17
General Public	17
Businesses.....	17
Homeowners, Landscapers, and Property Managers.....	17
Engineers, Contractors, and Developers.....	18
Evaluating the Effectiveness of the Public Education Program.....	18
Public Awareness Activities	18

ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE) 19

- MS4 Map..... 19
- Ordinance/Regulatory Mechanism..... 19
- Dry Weather Screening Program..... 19
- Source Identification 20
- Illicit Discharge Elimination 20
- ADEM Notification by the City 20
- Illicit Discharge Reporting by the Public 21
- Personnel Training 21
- Ordinance/Regulatory Mechanism Availability 21

CONSTRUCTION SITE STORM WATER RUNOFF CONTROL..... 22

- Erosion and Sedimentation Control Complaints..... 22
- Site Plan Reviews..... 22
- Site Inspection Plan 22
- Training of MS4 Site Inspection Staff..... 22
- Construction Site Inspection Checklist..... 23
- Enforcement Response Plan (ERP)..... 23
- Construction Site Operator Training 23

POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND RE-DEVELOPMENT..... 24

- Ordinance/Regulatory Mechanism..... 24
- Inventory of Post Construction Structural Controls 24

SPILL PREVENTION AND RESPONSE 25

- City Response Protocol 25
- Spill Prevention/Spill Response Plan 25
- Personnel Spill Prevention/Response Training..... 25

POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS	26
Municipal Facilities Inventory	26
Good Housekeeping Practices SOP	26
Inspection Plan	26
Good Housekeeping Training Program.....	26
Short Term and long Term Trash Removal Strategy	26
APPLICATION OF PESTICIDES, HERBICIDES, AND FERTILIZERS (PHF)	28
Application and Storage.....	28
PHF Training Program.....	28
OILS, TOXICS, AND HOUSEHOLD HAZARDOUS WASTE.....	30
Public Education on Proper Disposal	30
Annual Employee Training.....	30
INDUSTRIAL STORM WATER RUNOFF.....	30
Inventory of High Risk Facilities.....	30
Inspection of High Risk Facilities	30
WET-WEATHER MONITORING AND REPORTING	32
Monitoring Locations	32
Impaired Waterways.....	32
Monitoring Parameters and Frequency.....	32
Sample Type, Collection and Analysis	33
Other requirements.....	35
SWMPP Plan Review and Modification	35
Annual Report.....	35

FIGURES

Figure 1: MS4 Boundary.....	13
Figure 2: Municipal Properties.....	27
Figure 3: PHF Distribution	29
Figure 4: Industrial and High Risk Facilities	31
Figure 5: Sampling Sites	34

APPENDICES

Appendix A – Irondale Storm Water Program Documents

Appendix B - Storm Water Collection Systems Operations

Appendix C - Illicit Discharge Detection and Elimination (IDDE)

Appendix D - Construction Site Storm Water Runoff Control

Appendix E – Post-Construction Storm Water Management

Appendix F - Spill Prevention and Response

Appendix G - Pollution Prevention/Good Housekeeping for Municipal Operations

Appendix H – Industrial Storm Water Runoff

INTRODUCTION

REGULATORY OVERVIEW

The City of Irondale (City) was issued by the Alabama Department of Environmental Management (ADEM) a Municipal Separate Storm Sewer System (MS4) Individual Phase I Permit (ALS000019) on June 7th, 2017 (**Appendix A**). This permit went into effect on July 1, 2017. Previously, the City was included as a Co-Permittee under permit number ALS000001.

As a condition of this permit, “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 Maximum Extent Practicable (MEP)”.

Per the requirements of NPDES Permit Number ALS000019, BMPs, measurable goals, and responsibility designations are provided for each of the following program elements:

- Storm Water Collection System Operations
- Public Education and Public Involvement on Storm Water Impacts
- Illicit Discharge Detection and Elimination
- Construction Site Storm Water Runoff Control
- Post-Construction Storm Water Management in New Development and Re- Development
- Spill Prevention and Response
- Pollution Prevention/Good Housekeeping for Municipal Operations
- Application of Pesticides, Herbicides, and Fertilizers
- Oils, Toxics, and Household Hazardous Waste Control
- Industrial Storm Water Runoff

ADEM defines the fiscal year as October 1st to September 30th. Annual reports are required to be submitted to ADEM no later than January 31st following the previous fiscal year.

MS4 JURISDICTIONAL BOUNDARY

Irondale's MS4 boundary is bound to the north by the city of Birmingham and Trussville, to the south by the city of Mountain Brook and Vestavia, and to the east and west by Birmingham and Leeds respectively. Approximately 16 square miles of residential, commercial, industrial, undeveloped lands, and streams make up the MS4 boundary. See **Figure 1: MS4 Boundary**.

There are two waterbodies, Cahaba River and Shades Creek, which are considered impaired by the U.S. Environmental Protection Agency and ADEM and flow through sections of Irondale. Cahaba River's designated use above Grant's Mill Bridge is Fish and Wildlife and below the bridge is Outstanding Alabama Waters (OAW) and Public Water Supply (PWS). Cahaba River has an approved Total Maximum Daily Loads (TMDLs) for Siltation (Habitat Alteration) and Nutrients. Shades Creek's designated use is Fish and Wildlife (F&W). Shades Creek has an approved Total Maximum Daily Loads (TMDLs) for Siltation (Habitat Alteration), Turbidity, and Pathogens (Fecal Coliform).

LEGAL AUTHORITY AND ENFORCEMENT

Part II C of the permit requires the City to review and revise its ordinances and regulatory mechanisms as necessary to comply with the permit. Below is a summary of the current ordinances, municipal codes, and regulations related to the management of Irondale's MS4. These ordinances are found in **Appendix A**.

- **Ordinance 2018-11, Erosion and Sedimentation Control Ordinance:** Controls sedimentation leaving construction sites. The ordinance describes the fees, regulations, and the requirements surrounding a land disturbing permit issuance.
- **Ordinance 464-83, Subdivision Regulations:** Approved by the Planning and Zoning Board and carry the force of a City Ordinance. They address design requirements for residential and commercial storm water infrastructure.
- **Ordinance 00-12, Tree Ordinance:** Encourages the planting of trees and shrubs to aid in the prevention of erosion and sedimentation, reduce storm water runoff, help control drainage, and restore denuded soil subsequent to construction and grading.

- **Ordinance 2006-36, Flood Ordinance:** Promotes public health, safety and general welfare by controlling construction and construction practices in and around the floodplain as well as controlling the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of floodwaters.
- **Ordinance 2017-57, Garbage, Refuse, and Trash Ordinance:** Makes it unlawful to litter upon any curb, gutter, sidewalk, avenue, highway, tunnel, park, parkway, or lot within the city limits. This ordinance also institutes a law against any person sweeping or depositing grass clippings, limbs, leaves, bushes, solid waste or any other materials on public streets, curb lines, sidewalks and gutters.
- **Ordinance 4-0794, Junked and Abandoned Motor Vehicles Ordinance:** Establishes a law against leaving abandoned and non-usable motor vehicles in the street or within public view.
- **Ordinance 2018-12, Post Construction Ordinance:** Establishes procedures to address the discharge of pollutants in post-construction storm water runoff to the MS4 from new development and re-development.
- **Ordinance 2018-13, Illicit Discharge Ordinance:** Prohibits non- storm water discharges to the MS4.

In 2011 the City of Irondale also adopted a Standard Operating Procedure (SOP) Manual detailing guidelines for addressing many activities associated with the program elements. The SOP Manual is found in **Appendix A**.

The following table reflects which City department is responsible for implementing or coordinating BMPs for each separate program element:

DEPARTMENT	RESPONSIBILITIES
Storm Water Collection Systems Operations	
Inspections/JCDH/SWMA	Maintain map of City owned/maintained structural controls
Inspections	Semi-annual inspection of new and existing structural controls
Inspections	Develop SOP, inspection checklist, and maintenance procedures
Public Works	Stabilize and re-vegetate eroded areas as needed
Public Works	Remove floatable, litter, sediment, and debris from structural controls
Public Education and Public Involvement on Storm Water Impacts	
Administration	Seek and consider public input in the development and implementation of the SWMPP
Public Works	Post signs prohibiting littering and illegal dumping
Administration	Educating individuals and households on reducing storm water pollution
Administration	Community involvement in the storm water program
Administration	Evaluate the effectiveness of the public education program
Administration	Organize annual cleanup
Illicit Discharge Detection and Elimination (IDDE)	
JCDH/SWMA	Develop MS4 map of outfalls
Administration	Develop applicable ordinances and other regulatory mechanisms
JCDH/SWMA	Screen 20% of the stream miles during dry weather conditions
JCDH/SWMA/City Personnel	Illicit discharge source identification
JCDH/Code Enforcement	Elimination of illicit discharges
Administration	Procedures to notify ADEM of a suspected illicit discharge entering the MS4 from an adjacent MS4
Administration	Illicit discharge public reporting system
JCDH/SWMA	Educating employees on detecting an IDDE , tracing the source of and eliminating illicit discharge
Administration	Ordinance/Regulatory mechanism availability
Construction Site Storm Water Runoff Control	
Inspections/Engineering	Site plan reviews
Inspections/Engineering	Site inspection plan
Inspections	Inspection staff training
Inspections	Construction site inspection checklist
Administration	Enforcement Response Plan (ERP)
Administration and Inspections	Construction site operator education

DEPARTMENT	RESPONSIBILITIES
Post-Construction Storm Water Management in New Development and Re-Development	
Administration	Develop applicable ordinances and other regulatory mechanisms
Inspections	Inventory of post construction structural controls
Spill Prevention and Response	
Fire	Spill prevention/spill response plan
Fire/JCDH	Educating employees on spill prevention/spill response
Pollution Prevention/Good Housekeeping for Municipal Operations	
All Departments	Inventory of municipal facilities
All Departments	Good housekeeping practices SOP
All Departments	Inspection plan
JCDH	Educating employees on good housekeeping
Application of Pesticides, Herbicides, and Fertilizers(PHF)	
Public Works/ Private Applicator	Application and storage of PHFs
JCDH	Educating employees on PHFs usage and storage
Oils, Toxics, and Household Hazardous Waste Control	
Administration	Public education on proper disposal
JCDH	Educating employees on oils, toxics, and household hazardous waste
Industrial Storm Water Runoff	
Administration/JCDH	Inventory of high risk facilities
JCDH	Inspection of high risk facilities
Wet Weather Monitoring and Reporting	
JCDH	Monitoring locations
JCDH	Impaired waterways review
JCDH	Sampling
Other Requirements	
Administration/JCDH	SWMPP plan review and modification
Administration/JCDH	Annual Report submittal

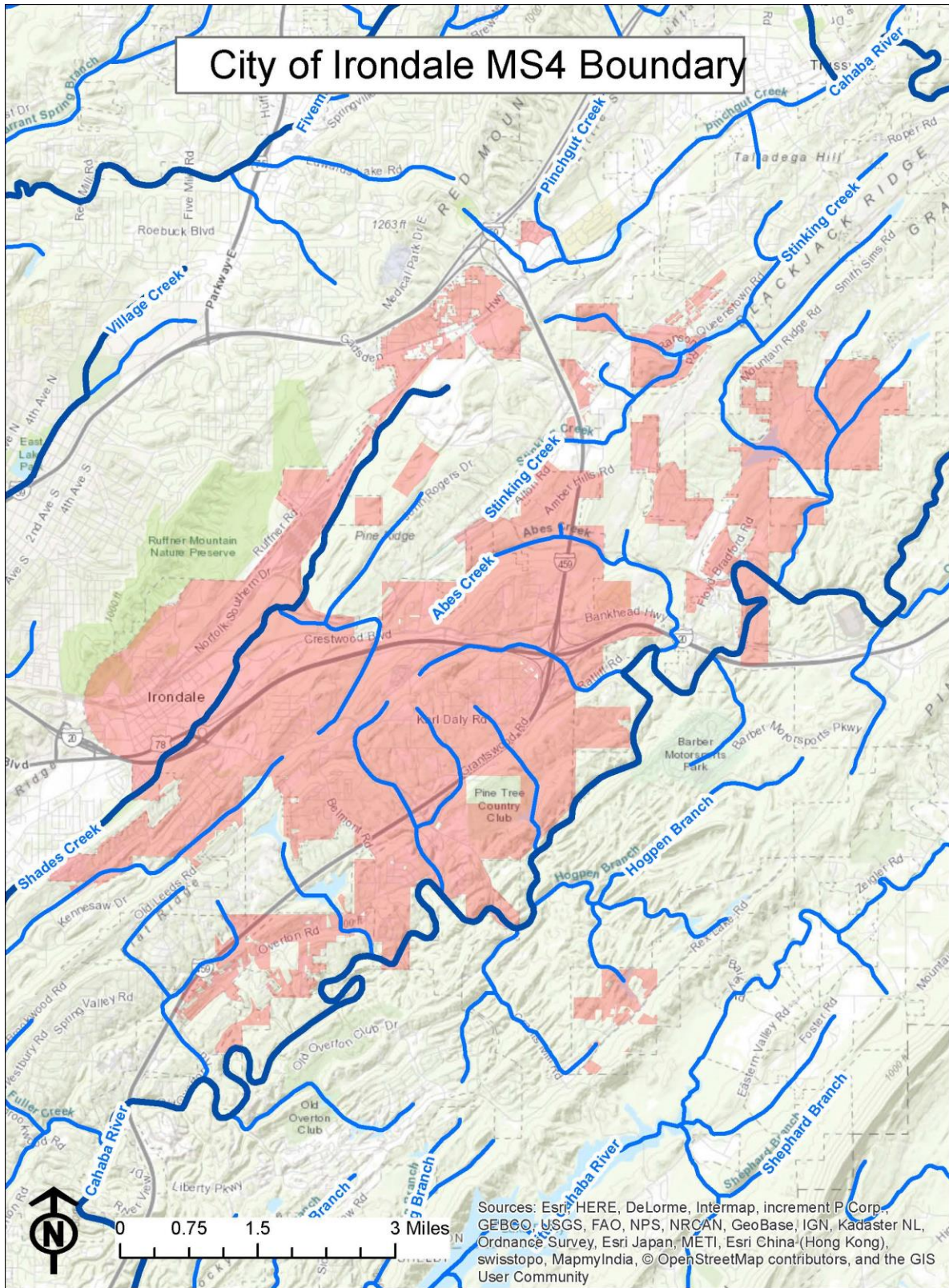


Figure 1: MS4 Boundary

STORM WATER COLLECTION SYSTEMS OPERATIONS

STRUCTURAL CONTROLS MAPPING

The City currently has no City owned/maintained structural controls within the MS4 boundary limits.

The City will monitor the addition of any City owned/ maintained structural controls.

Responsible Department: Inspections/JCDH/SWMA

STRUCTURAL CONTROLS INSPECTION

As stated in the permit, all existing and new structural controls owned/maintained by the Permittee shall be inspected using a standard inspection form found in **Appendix B** on a semi-annual basis, at a minimum. While the City does not own/maintain structure controls currently, any future inspections will be performed by a city inspector and/or a contractor. Any deficiencies or maintenance recommendations listed on the inspection form in regards to the structural control will be addressed by Public Works.

Responsible Department: Inspections

STANDARD OPERATING PROCEDURE (SOP) FOR STRUCTURAL CONTROL INSPECTION AND MAINTENANCE PROCEDURES

The standard inspection form found in **Appendix B** is used to document structural control inspections. Once any maintenance is completed, a city inspector and/or a contractor will re-inspect the Structural Control to ensure the structure can effectively function as designed.

Responsible Department: Inspections

STABILIZATION AND RE-VEGETATION OF ERODED AREAS

During the inspection of the structural controls, areas of erosion will be documented. The Public Works Department will receive a copy of the inspection documentation noting the eroded areas and will stabilize and re-vegetate these areas.

Responsible Department: Public Works

FLOATABLES, LITTER, SEDIMENT AND DEBRIS IN STRUCTURAL CONTROLS

All floatables, litter, sediment, and/or debris found during the structural inspection will be documented. The Public Works Department will receive a copy of the inspection documentation and will remove the noted items. Public Works will maintain documentation of the estimated amounts of floatables, litter, sediment and debris removed during maintenance activities using the Storm Water Online Activity Record (SOAR) program. The maintenance form can be found in **Appendix B**

Responsible Department: Public Works

PUBLIC EDUCATION AND PUBLIC INVOLVEMENT ON STORM WATER IMPACTS

DEVELOPMENT AND IMPLEMENTATION OF THE SWMPP

The City seeks public input on the SWMPP by posting the draft SWMPP on Irondale’s website for comments. Notification announcements will be made at council meetings. The Council-approved SWMPP for the upcoming year will then be posted on the website and be submitted yearly with the annual report on January 31st.

Responsible Department: Administration

PUBLIC ACCESS TO CITY STORM WATER DOCUMENTS

The City posts copies of the current Annual Report, draft SWMPP, current SWMPP and the NPDES permit on the City’s website. The documents are updated on the website after they are approved by the city council and/or submitted to ADEM.

Responsible Department: Administration

TARGETED POLLUTANT SOURCES FOR PUBLIC EDUCATION

The City discusses targeted pollutant sources in the section of the SWMPP titled “Community Involvement with the Storm Water Program”.

REDUCTION OF LITTER FLOATABLES AND DEBRIS

The City currently maintains litter signage in Beacon Park, Ruffner Park, Ellard Park, the Cahaba River Walk and other places. Signage will be updated as necessary to properly address these issues. Administration approves of the messages and Public Works installs the signs and/or labels.

Responsible Department: Administration and Public Works

EDUCATING INDIVIDUALS AND HOUSEHOLDS ON REDUCING STORM WATER POLLUTION

The City posts on its website information describing Irondale’s Storm Water Program. The information includes general information about the storm water permit with links and brochures about different ways to reduce storm water pollution in relation to the different

community segments. These materials will be updated as needed. These same brochures on storm water issues are placed at City Hall for public pickup.

Responsible Department: Administration

COMMUNITY INVOLVEMENT WITH THE STORM WATER PROGRAM

GENERAL PUBLIC

The City has a storm water page on its website and placed brochures containing information in City facilities that informs the general public of:

- General impacts litter has on waterbodies and ways to reduce the litter
- General impacts of storm water on surface water from impervious surfaces
- Source control BMPs in areas of pet waste, home vehicle maintenance, landscaping and rain water reuse.
- Impacts of illicit discharges and how to report them.

These materials will be updated as needed.

Responsible Department: Administration

BUSINESSES

The City has a storm water page on its website and placed brochures containing information in City facilities on the following business-related topics:

- Information on BMPs for use and storage of automotive chemicals, hazardous cleaning supplies, carwash soaps and other hazardous materials.
- Impacts of illicit discharges and how to report them.

These materials will be updated as needed.

Responsible Department: Administration

HOMEOWNERS, LANDSCAPERS, AND PROPERTY MANAGERS

The City has a storm water page on its website and placed brochures in City facilities informing homeowners, landscapers, and property managers on the following topics:

- BMPs and storage of pesticides, herbicides, and fertilizers.
- Detention/retention pond maintenance.
- General impacts of storm water from impervious surfaces into surface water.

These materials will be updated as needed.

Responsible Department: Administration

ENGINEERS, CONTRACTORS, AND DEVELOPERS

The City has a storm water page on its website and placed brochures in City facilities to inform engineers, contractors and developers on the following topics:

- Impacts of increased storm water flows into receiving waterbodies.
- Run-off reduction techniques and low impact development (LID)/Green infrastructure practices. Specifically addressing site design, pervious pavement, alternative parking lot design, retention of forests and mature trees.

These materials will be updated as needed.

Responsible Department: Administration

EVALUATING THE EFFECTIVENESS OF THE PUBLIC EDUCATION PROGRAM

The City will evaluate the effectiveness of the public education program by monitoring and reporting the number of visitors to the storm water page and the number of brochures that are picked up from the City facilities on an annual basis.

Responsible Department: Administration

PUBLIC AWARENESS ACTIVITIES

Currently the City is planning to host or participate in a cleanup annually. The tonnage collected by the City will be included in the annual report.

Responsible Department: Administration

ILLCIT DISCHARGE DETECTION AND ELIMINATION (IDDE)

MS4 MAP

Maps of the major outfalls, structural controls owned/maintained by the City, and waters of the State within the MS4 boundary that receive discharge from the major outfalls can be found in **Appendix C**. Also, a list of the major outfalls' latitude and longitude coordinates can be found in **Appendix C**.

JCDH will update the MS4 map and provide a list of location coordinates annually on behalf of the City.

Responsible Party: JCDH

ORDINANCE/REGULATORY MECHANISM

Ordinance 2018-13 addresses illicit discharges as required by the City's Permit.

Responsible Department: Administration

DRY WEATHER SCREENING PROGRAM

Dry weather screening of 20% of the stream miles will be performed annually with 100 percent of the major outfalls screened at least once per the five year permit period. This work will be completed by JCDH. Currently there are no priority outfalls identified within the MS4 boundary, but if illicit discharges are identified during the dry weather inspections, those outfalls will be screened on an annual basis. JCDH shall use the EPA's guidance manual, *Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments*, Center for Watershed Protection, October, 2004, for the main source of investigative techniques and guidance for the dry weather screening process. Outfalls will be field inspected after a minimum of 72 hours of dry weather. Data sheets found in **Appendix C** will be filled out for each outfall inspected. Protocols for dry weather are also found in the Standard Operating Procedure Manual. In addition to the required dry weather screening program, Public Works staff will be educated annually to recognize and report potential illicit discharges while conducting their day to day operations. Also, all citizen complaints regarding potential illicit discharges will be investigated.

Responsible Party: JCDH

SOURCE IDENTIFICATION

If during the dry weather screenings, Public Works' identification, or citizen complaint, an outfall is found to be discharging a liquid, the city inspector or JCDH personnel will traverse upstream of the discharge in an attempt to identify the source of the discharge. If the discharge source is unidentifiable, then a sample of the discharge shall be collected by JCDH and analyzed by a qualified lab. Based on the lab results, the outfall will be prioritized and scheduled for further investigation if needed.

Responsible Parties: Inspections Department and/or JCDH

ILLICIT DISCHARGE ELIMINATION

Once the source and responsible party of an illicit discharge has been identified, either the City will take action through its pertinent ordinances or JCDH will through its regulations.

Responsible Parties: Inspections Department or JCDH

ADEM NOTIFICATION BY THE CITY

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

Responsible Department: Inspections Department

ILLCIT DISCHARGE REPORTING BY THE PUBLIC

The City receives calls for illicit discharges at the City Hall phone number 205-956-9200 frequently. There is also a phone number, 205-930-1999, listed on the City's website to report illicit discharges.

Responsible Department: Administration

PERSONNEL TRAINING

Non-First Responder City Personnel will be trained by JCDH on IDDE identification and response annually.

Responsible Party: JCDH

ORDINANCE/REGULATORY MECHANISM AVAILABILITY

All ordinances and regulatory mechanisms can be found on the City's website, <http://cityofirondaleal.gov/> , or through the link to Municode on the City's website.

Responsible Department: Administration

CONSTRUCTION SITE STORM WATER RUNOFF CONTROL

EROSION AND SEDIMENTATION CONTROL COMPLAINTS

The City frequently receives calls about construction and sedimentation runoff at the city hall phone number (205-956-9200). These calls are directed to the Department of Building Inspections and Permitting (205-951-1417). The City website lists the Department of Building Inspections and Permitting as the contact number for construction complaints.

Responsible Department: Building Inspections and Permitting

SITE PLAN REVIEWS

According to Ordinance 2018-11, a BMP plan must be submitted to the City along with the permit application before the commencement of any land disturbance. The City must either approve or disapprove the BMP plan within 14 days. Reasons for disapproval must be submitted to the applicant in writing. All revisions have an additional 14-day response time. Land disturbing activity may not be commenced prior to the issuance of the permit by the City.

Responsible Department: Building Inspections and Permitting

SITE INSPECTION PLAN

The City will perform a monthly inspection, at a minimum, on sites that have been issued land disturbance permits. Monthly inspections are required due to the Cahaba River's impaired status resulting in Irondale's sites being categorized as "Priority Construction Sites". Erosion controls and best management practices will be inspected during these inspections. Deficiencies identified during an inspection will be subjected to enforcement procedures outlined in the Erosion Control Ordinance.

Responsible Department: Building Inspections and Permitting

TRAINING OF MS4 SITE INSPECTION STAFF

Personnel responsible for construction site inspections receive BMP training annually.

Responsible Department: Building Inspections and Permitting

CONSTRUCTION SITE INSPECTION CHECKLIST

See **Appendix D** for the City's construction site inspection checklist.

Responsible Department: Building Inspections and Permitting

ENFORCEMENT RESPONSE PLAN (ERP)

An Enforcement Response Plan is included in Ordinance 2018-11

Responsible Department: Building Inspections and Permitting

CONSTRUCTION SITE OPERATOR TRAINING

The City provides construction site operator's informational materials regarding appropriate application and maintenance of erosion and sediment controls when they receive their permits from the Inspections Department. The City has a storm water page on its website and has brochures at City facilities that inform the engineers, contractors and developers on:

- Impacts of increased storm water flows into receiving waterbodies.
- Run-off reduction techniques and low impact development (LID)/Green infrastructure practices. Specifically addressing site design, pervious pavement, alternative parking lot design, retention of forests and mature trees.

These materials will be updated as needed.

Responsible Department: Administration and Building Inspections and Permitting

POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND RE-DEVELOPMENT

ORDINANCE/REGULATORY MECHANISM

City Ordinance 2018-12 meets the requirements for post-construction storm water management.

The Post-Construction Ordinance addresses the following:

- Procedures to develop, implement and enforce systems of appropriate structural and/or non-structural BMPs.
- Procedures to develop, implement and enforce performance standards.
- Procedures for encouragement of the utilization of LID/green infrastructure practices.
- Procedures to ensure compliance including sanctions and enforcement mechanisms.
- Procedures for post-construction inspections to include tracking and enforcement.
- Procedures to ensure adequate long-term operation and maintenance of BMPs.

Responsible Department: Administration and Building Inspections and Permitting

INVENTORY OF POST CONSTRUCTION STRUCTURAL CONTROLS

The City is developing a list of privately-owned structural controls for those built after the codification of the new requirements. Currently the city has two. The City will update annually the list of privately-owned structural controls under the new requirements.

Locations of structural controls are found in **Appendix E**.

Responsible Department: Building Inspections and Permitting

SPILL PREVENTION AND RESPONSE

CITY RESPONSE PROTOCOL

The Irondale Fire Department is responsible for investigating, responding, and conducting response actions for any spill within the City's boundaries. Jefferson County's Emergency Management Agency (EMA) will additionally respond at the request of the City. Irondale's Fire Department and EMA track the spills, the response, and the cleanup activities for all spills.

SPILL PREVENTION/SPILL RESPONSE PLAN

The City's SOP for spill response is found in **Appendix F**.

Responsible Department: Fire

PERSONNEL SPILL PREVENTION/RESPONSE TRAINING

Irondale Fire Department is responsible for the training and certification of their personnel. An annual training will be provided to municipal personnel on spill prevention/response.

Responsible Party: JCDH

POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

MUNICIPAL FACILITIES INVENTORY

See **Figure 2: Municipal Properties** for a map of municipal properties as well as the locations for vehicle and equipment maintenance facilities. The map shows which department maintains which properties. Generally, Parks and Recreation use pesticides, herbicides and fertilizers while Public Works only mows. The map will be reviewed annually and updated if needed. JCDH will compile the data provided by each Department.

Responsible Department: All Departments

GOOD HOUSEKEEPING PRACTICES SOP

The SOP detailing good housekeeping practices is found in the 2011 SWMA SOP Manual.

Responsible Department: All Departments

INSPECTION PLAN

Annual inspections will be conducted for municipal facilities, to include municipal maintenance shops and equipment yards, for good housekeeping practices, including BMPs. See **Appendix G** for the inspection checklist.

Responsible Department: All Departments

GOOD HOUSEKEEPING TRAINING PROGRAM

City staff will be educated annually on good housekeeping practices. The 2011 SWMA SOP Manual contains procedures related to Good Housekeeping.

Responsible Party: JCDH

SHORT TERM AND LONG TERM TRASH REMOVAL STRATEGY

The City has a SOP for special events that promotes the reduction of trash and debris into the City's MS4 as well as Waters of the State (**Appendix G**).

Responsible Party: JCDH

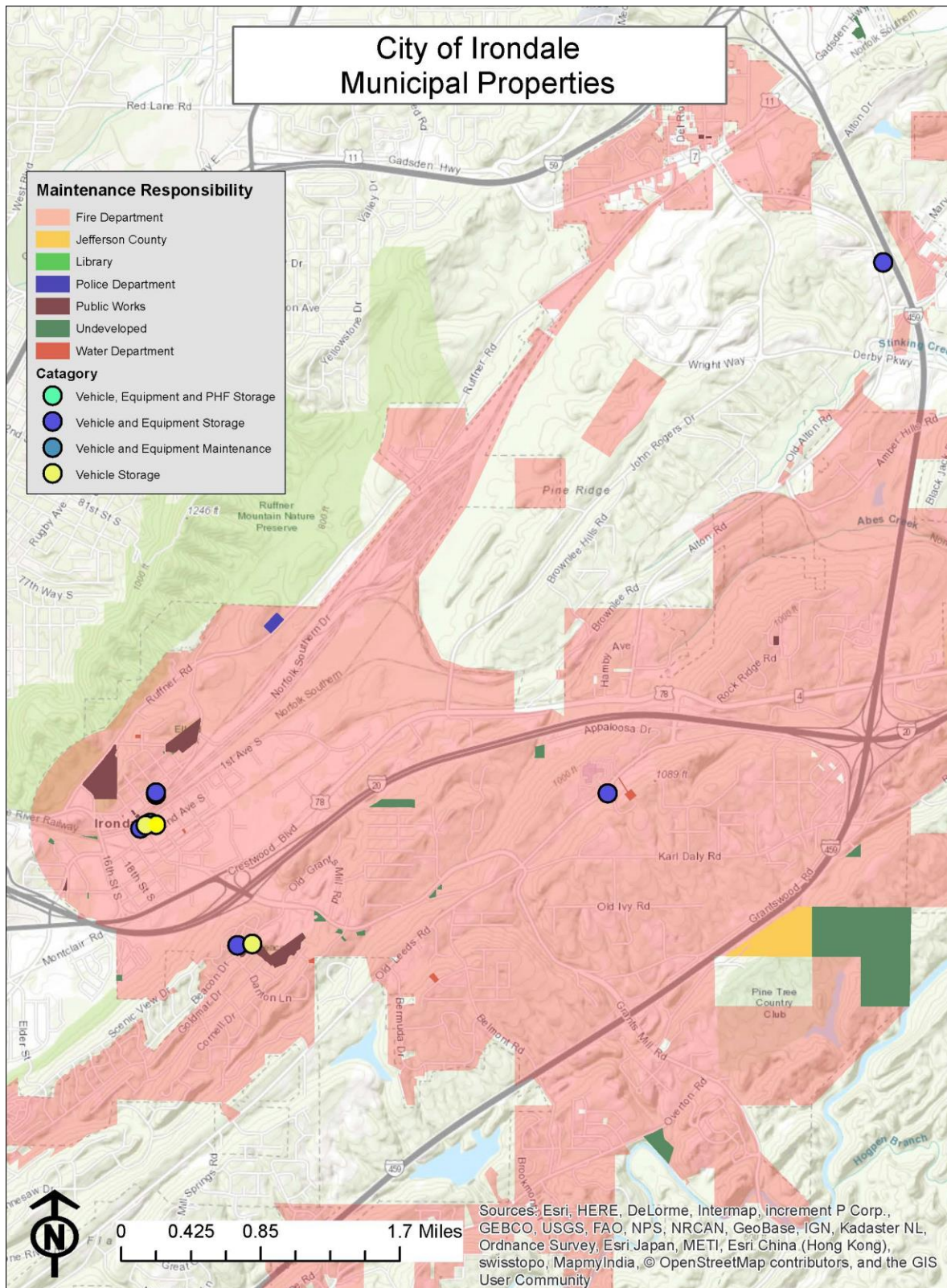


Figure 2: Municipal Properties

APPLICATION OF PESTICIDES, HERBICIDES, AND FERTILIZERS (PHF)

APPLICATION AND STORAGE

The Public Works Department keeps annual records of pesticides, herbicides, and fertilizers (PHFs) used at municipal facilities. Each chemical used is applied per the labeling instructions. Material safety data sheets (MSDS) on each product are found in the chemical storage areas. City staff responsible for application of PHFs receive annual training in safe use, storage, and disposal of PHFs. A map of the scheduled spraying sites for the year is found in **Figure 3: PHF Distribution**. The scheduled spraying is subject to change. All contractors contracted to apply pesticides or herbicides to City property shall provide proper certification and licensing before performing work. Also, contractors contracted to apply fertilizer must provide qualification in utilizing proper nutrient management practices.

City facilities that store PHFs will be inspected annually to determine proper storage, product labeling, and MSDS accessibility (**Figure 2: Municipal Properties**). The SOP manual contains procedures related to usage and storage of PHFs.

Responsible Department: Public Works

PHF TRAINING PROGRAM

City staff will be educated annually on proper PHF practices.

Responsible Party: JCDH

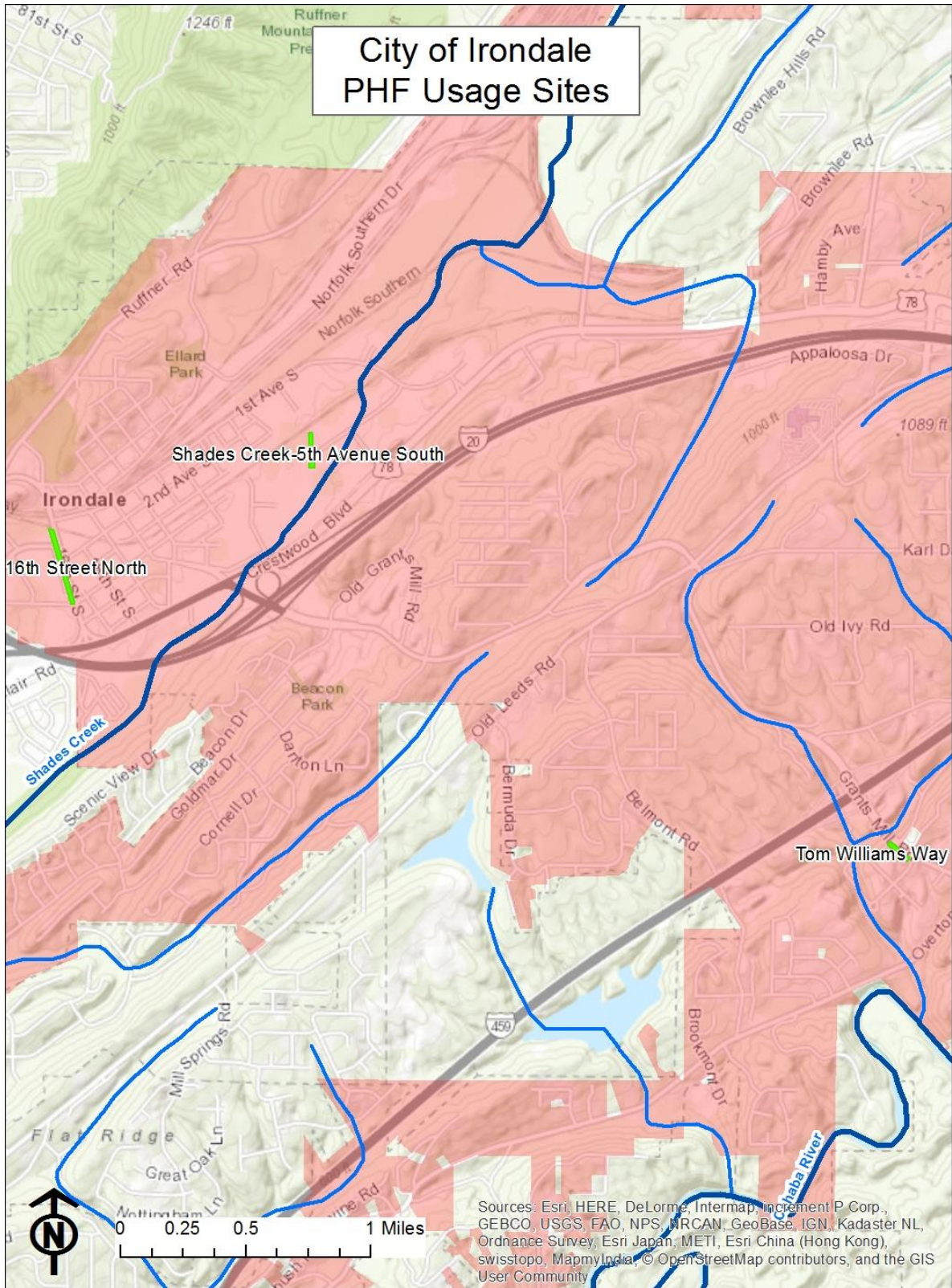


Figure 3: PHF Distribution

OILS, TOXICS, AND HOUSEHOLD HAZARDOUS WASTE

PUBLIC EDUCATION ON PROPER DISPOSAL

The City has contact information on its webpage regarding where to report spills, illicit discharges and improper disposals. The webpage also includes a link to the website Earth911_ <http://earth911.com/> which provides local sites for recycling of oils, toxics and household hazardous waste. Brochures on oils, toxics, and household hazardous waste are on the City storm water webpage as well as placed in City facilities for public pick-up.

Responsible Department: Administration

ANNUAL EMPLOYEE TRAINING

Annual training on spill prevention is provided to City personnel by JCDH.

Responsible Party: JCDH

INDUSTRIAL STORM WATER RUNOFF

INVENTORY OF HIGH RISK FACILITIES

The City maintains a list of industrial and high risk facilities within the city limits, see **Appendix H**. The list of industrial facilities will be reviewed annually for accuracy and will be updated when necessary. A map of the industrial and high risk facilities can be found in **Figure 3: Industrial and High Risk Facilities**.

Responsible Party: JCDH and Administration

INSPECTION OF HIGH RISK FACILITIES

JCDH will inspect these sites annually on behalf of the city. See **Appendix H** for the Industrial Inspection form.

Responsible Party: JCDH

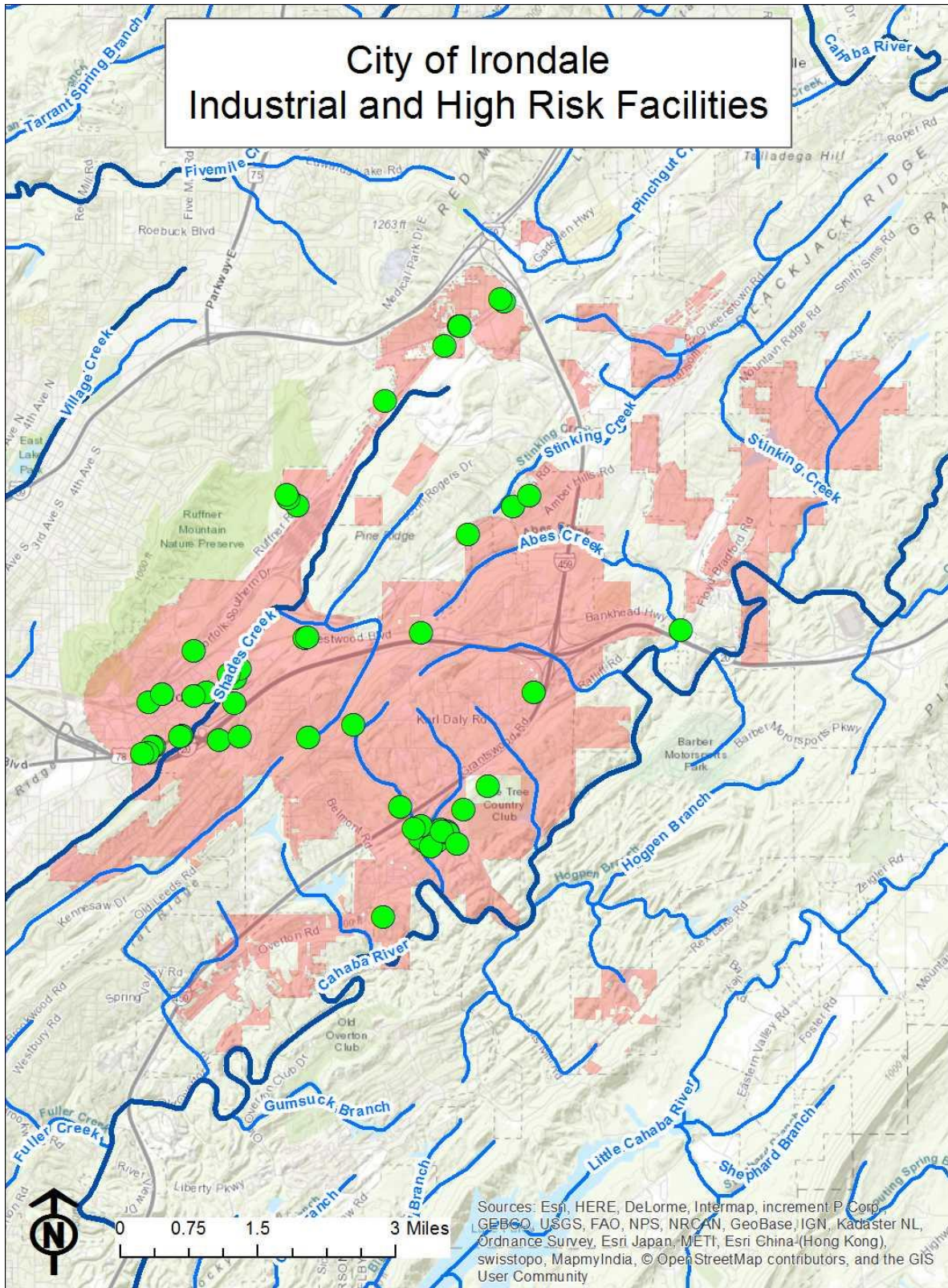


Figure 4: Industrial and High Risk Facilities

WET-WEATHER MONITORING AND REPORTING

MONITORING LOCATIONS

JCDH will take wet-weather grab samples at sites on Cahaba River and Shades Creek annually on behalf of the City. See **Figure 4: Sampling Sites** for a map of the sampling sites

The site locations are as follows:

Water Body	Latitude, Longitude	Description
Cahaba River	33.511484, -86.652636	Grab Sample
Shades Creek	33.520615, -86.716795	Grab Sample and Water Quality Sonde Site

An hourly water quality sonde will be placed on Shades Creek. The sonde will be managed by the United States Geological Survey (USGS). The site's title is USGS 02423571 Shades Creek at Elder St. near Springdale AL.

Responsible Party: JCDH

IMPAIRED WATERWAYS

The City will review the waterbodies listed in the latest final §303(d) list, annually. If a waterbody becomes listed that falls within the MS4 boundary, the SWMPP will be updated as needed.

Responsible Party: JCDH

MONITORING PARAMETERS AND FREQUENCY

Grab samples will be analyzed for the following parameters:

- a. E.Coli
- b. Total Nitrogen (TN) (mg/l)
- c. Total Phosphorus (mg/l)
- d. Total Suspended Solids (TSS) (mg/l)
- e. Temperature
- f. pH/ORP
- g. Turbidity (NTU)
- h. Conductivity
- i. Dissolved Oxygen (mg/l)

- j. Ammonia Nitrogen (NH₃-N) (mg/l)
- k. Biochemical Oxygen Demand (BOD) (mg/l)
- l. Chemical Oxygen Demand (COD) (mg/l)
- m. Hardness as CaCO₃ (mg/l)
- n. Nitrate plus Nitrite Nitrogen (NO₃+NO₂-N) (mg/l)
- o. Oil and Grease (mg/l)
- p. Total Dissolved Solids (TDS) (mg/l)
- q. Total Kjeldahl Nitrogen (TKN) (mg/l)

The water quality sonde will monitor the following parameters at least hourly:

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

Responsible Party: JCDH

SAMPLE TYPE, COLLECTION AND ANALYSIS

JCDH will collect grab samples and submit them to a certified laboratory for analysis.

Responsible Party: JCDH

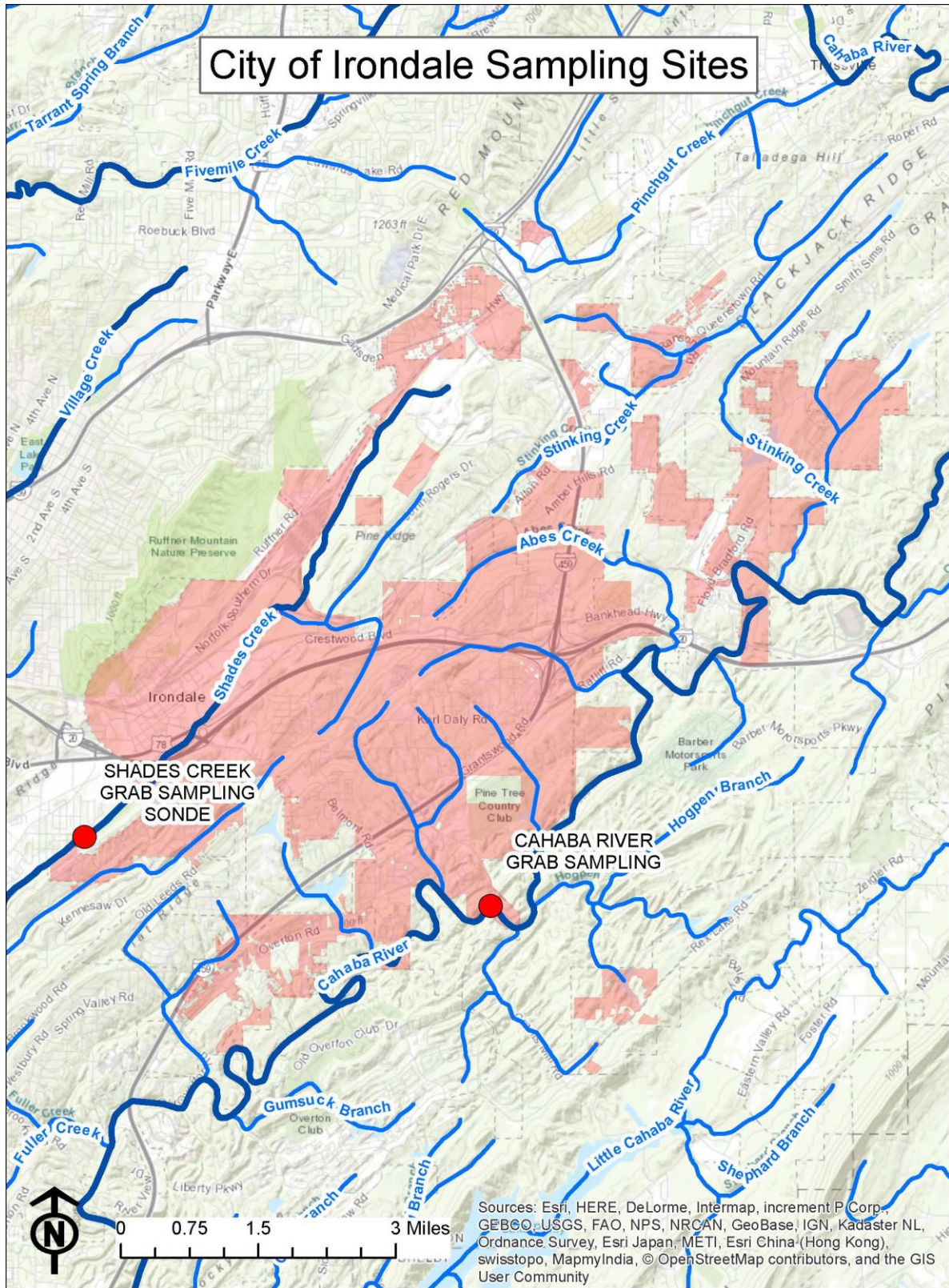


Figure 5: Sampling Sites

OTHER REQUIREMENTS

SWMPP PLAN REVIEW AND MODIFICATION

This plan will be reviewed annually and updated as necessary.

Responsible Department: All Departments

ANNUAL REPORT

The Annual report will be compiled by JCDH for the city of Irondale.

Responsible Party: JCDH