



Engineering Department
City of Opelika, Alabama
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Opelika, Alabama 36801
Phone: 334.705.5450 Fax: 334.705.5452

March 28, 2016

Mrs. Marla Smith
Alabama Department of Environmental Management
1400 Coliseum Boulevard
Montgomery, AL 36110-2400

Re: 2015-2016 Annual Report
NPDES Permit No ALR040018
City of Opelika Phase II Municipal
Separate Storm Sewer System (MS4)
Lee County (81)

Dear Mrs. Smith:

The City of Opelika (City) is committed to continuing the implementation of the storm water management program (SWMP) that is not only compliant with the permit requirements but also helps improve water quality in our community.

The City is pleased to submit our 2015-2016 annual report that details the positive advancements and improvements the City has made within the past reporting year. With improved record keeping, enforcement procedures, more extensive public involvement, and more experience in managing the MS4 program, we look for many improvements in the months to come.

If you have any questions, or need additional information, please do not hesitate to contact me.

Sincerely,

Scott H. Parker, P.E.
City Engineer

cc: Honorable Mayor Gary Fuller



2015-2016 Annual Report



City of Opelika
Phase II NPDES MS4 Permit Number ALR040018
Post Office Box 390
Opelika, Alabama 36803



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1.0 Certification

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 gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information 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.

The Honorable Gary Fuller
Mayor, City of Opelika

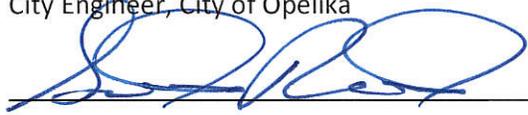


Signature



Date

Mr. Scott Parker, P.E.
City Engineer, City of Opelika



Signature



Date





2.0 General Introduction

On November 16, 1990, the U.S. Environmental Protection Agency (EPA) promulgated regulations, under the Water Quality Act of 1987, setting forth application requirements for National Pollutant Discharge Elimination System (NPDES) storm water permits. The Alabama Department of Environmental Management (ADEM) administers the storm water program for the State of Alabama. In 1999, EPA promulgated regulations establishing Phase II of the NPDES storm water program. The Phase II program extends coverage of the NPDES storm water program to regulated “small” MS4s. A regulated “small” MS4 is located within an “urbanized area” as defined by the Census Bureau or as designated by the NPDES permitting authority.

This annual report covers the reporting period from April 1st, 2015 through March 30th, 2016.

2.1 Site Description

The City of Opelika is located in East Central Alabama. A map of the City is provided in Appendix A of this report. Opelika’s incorporated area occupies approximately 59 square miles and is adjacent to the City of Auburn and unincorporated areas of Lee County. The current population, according to the 2010 census, is **27,477**.

2.2 Water Quality Concerns

According to ADEM’s May 2012, §303 (d) list, there are two streams within the City that has been designated as impaired. Table 2.2.1 below lists the impairments for Moore’s Mill Creek. The creek’s watershed begins in southern Opelika and 98% of the flow way is in the City of Auburn where very heavy development has taken place.

Table 2.2.1: Moore’s Mill Creek Impairments

Waterbody	Use Classification	Pollutant	Source
Moore’s Mill Creek	Swimming/Fish & Wildlife	Siltation (habitat alteration)	Land Development Urban runoff/storm sewers





Pepperell Branch was first placed on the State's §303 (d) list for pathogens in 2010 for not meeting designated uses under technology-based pollution controls. The State has since developed (2) total maximum daily loads (TMDLs) for Pepperell Branch. Table 2.2.2 below lists the impairments for Pepperell Branch.

Table 2.2.2: Pepperell Branch Impairments

Waterbody	Use Classification	Pollutant	Source
Pepperell Branch	Fish & Wildlife	Pathogens (E. Coli)	Urban runoff/storm sewers
Pepperell Branch	Fish & Wildlife	Nutrients and Organic Enrichments/Dissolved Oxygen	Industrial Activity

The City has committed to the improvement of these impaired streams by actively conducting and supporting water quality testing at locations identified by Alabama Water Watch (AWW). These testing locations are identified by using AWW site codes in the table below and the sampling records are listed in Appendix B of this report:

Table 2.2.3: Pepperell Branch Testing Locations

AWW Site Code	Location	Latitude	Longitude	Monitoring
7011003	Thomason Drive	32.63248	-85.40539	Bacteria/Phosphorus
7011004	Waverly Parkway	32.65069	-85.44146	Bacteria/Phosphorus
7011010	Baseball Fields off US 29/Pepperell Parkway	32.63422	-85.42526	Bacteria/Phosphorus

Table 2.2.4: Moore's Mill Branch Testing Locations

AWW Site Code	Location	Latitude	Longitude	Monitoring
7022001	Bridge at Hamilton Road	32.62672	-85.40716	Chemistry and TSS
7022002	Hampton Inn Bridge	32.61429	-85.40362	Chemistry and TSS
7011003	Dam/Pond at Golf Course	32.63422	-85.42526	Chemistry and TSS





3.0 Contact List

Storm water is managed by several City Departments with daily task and inspections, and by community activities, which involve volunteer work. The City does not have the financial resources to dedicate personnel solely to storm water, water quality, but these responsibilities are shared by employees and considered part of the efforts. The following individuals may be contacted to address questions or concerns regarding the City of Opelika's MS4 program:

Scott Parker, P.E.
City Engineer, City of Opelika
700 Fox Trail
P. O. Box 390
Opelika, Alabama 36801
(334) 705-5450
sparker@opelika-al.gov

John M. Harris, QCI #4431
Storm Water Coordinator, City of Opelika
700 Fox Trail
P. O. Box 390
Opelika, Alabama 36801
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jharris@opelika-al.gov

John Gwin
Assistant City Engineer, City of Opelika
700 Fox Trail
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Opelika, Alabama 36801
(334) 705-5456
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4.0 Program Evaluation

4.1 Program Objective

The City of Opelika is dedicated to advancing the past achievements of the requirements of their NPDES Permit, ALR040018. The requirements of this permit, as well as the City's Storm Water Management Plan (SWMP) that was submitted and approved in 2012, is intended to improve water quality by reducing pollutants in receiving waters. The City's goal to achieve this progress is planned to be aided by the continuing education of the municipal employees and the general public on the storm water management program, and focus on a unified approach to the identification and correction of problem areas that diminish storm water quality. With the involvement, and education of citizens and employees that have a passion for improving the City's storm water quality, comes the quantitative effort to change. It is the City of Opelika's goal to harness this energy, to improve the quality of the environment, with improved developmental practices, residential awareness and behavior, and infrastructure improvements that arise from detection of problems.

The City of Opelika was incorporated in 1854. As an incorporated city, Opelika has the legal authority to create land use and design regulations for developments within the City's corporate limits.

5.0 Storm Water Management Program Components

The Phase II storm water permit regulations require that operators of a "small" municipal separate storm sewer systems (MS4s) in urbanized areas develop and implement storm water programs employing best management practices (BMPs), to adequately address six minimum control measures to promote compliance with the SWMP. As of October 2015, Opelika funded a storm water coordinator position and filled this position with a full time employee. This position has actively been integrating the following 6 control elements.

These control measures indicated are as follows:

- A. Public Education and Outreach on Storm Water Impacts
- B. Public Involvement/Participation
- C. Illicit Discharge Detection and Elimination
- D. Construction Site Storm Water Runoff Control
- E. Post-Construction Storm Water Management in New and Redevelopments
- F. Pollution Prevention and Good Housekeeping for Municipal Operations

The following report will demonstrate activities the City of Opelika has achieved during the 2015-2016 permit year to satisfy the requirements of their Phase II MS4 permit.





A. Public Education and Outreach on Storm Water Impacts

1. ALOAS Brochures

Various informational and educational brochures have been printed and distributed regarding the City’s Water Quality programs and policies. The brochures were co-developed with the City of Auburn, the Lee County Commission, Auburn University, and the City of Smiths Station. Copies of the brochures are available at City Hall, the Public Works Facility, the City Library, and the City’s website. These brochures can be obtained at the City’s website at the following link:

<http://www.opelika-al.gov/Default.asp?ID=2042&pg=Storm+Water+Management+Resources>

- Local Water Resources
- Our Local Watersheds
- Saugahatchee Creek Watershed
- Moore’s Mill Creek Watershed
- Mill Creek Watershed
- Parkerson Mill Creek Watershed
- Halawakee Creek Watershed
- Low Impact Development
- Materials Management on Construction Sites
- Rain Gardens
- Lawn Care and Smart Yards
- Emerging Contaminants (New)
- Erosion and Sediment Control Policy
- Alternate Storm Water Treatment Technologies
- Erosion and Sediment Control Policy for the Small Scale Builder
- Illicit Discharges
- Sanitary or Storm Sewers?
- Stream Buffer
- Storm Water Related Websites
- Wetlands
- Stream Gages
- Low Impact Development Handbook



Figure 1: Typical ALOAS Brochure





2. Storm Water Management Resources Page

The City of Opelika has developed a page within the City’s website to provide information for citizens on the City’s MS4 permit requirements. This website provides citizens with access to the City’s previous MS4 annual reports along with the City’s Storm Water Management Program (SWMP) Plan. The City hopes that the information provided by this site helps citizens understand their responsibility to assist the City with the requirements. A screenshot of the City’s webpage is shown.



Figure 2: City Resource Page

3. Lee County Water Festival

The City provided financial, leadership, and volunteer support for the tenth and eleventh Annual Lee County Water Festival on and March 19th and 20th 2015, and this year’s event is being scheduled and planned for April 4th and 5th, 2016. Approximately 425 of Opelika’s fourth graders were able to attend the 2015 and 2016 programs. In each year, there were approximately 800 to 1200 fourth-grade students and teachers from two school systems (City of Opelika, and Lee County) who attended this free event at Auburn University. Photos from the Leadership Committee Meeting, and various photographs are attached in Appendix A of this report.

The mission of the Water Festival is to educate students and their families about all the aspects of surface water, groundwater, and related natural resources, such as wetlands, forestry, and wildlife. Attendees gained a greater knowledge and awareness of the importance of all water resources and the need to become good environmental stewards of those resources. In addition to the City of Opelika participating and volunteering for this event, the City has been active on the Leadership Committee, participating in organizational meetings, and coordinating attendance with the City of Opelika Schools to ensure maximum attendance of the Lee County Water Festival. The event was also sponsored by the Lee County Soil and Water Conservation District.



Figure3: Lee County Water Festival Leadership Committee Meeting





4. Stream Crossing Identification Signs

The City of Opelika Public Works Department partnered with Opelika Middle School (OMS) to install more than 30 signs at stream crossing points in Opelika since 2009. Signs were placed beside the roadway at each bridge or culvert. The signs identify the name of the stream at the crossing point and its major downstream tributary. OMS students have assisted in the maintenance of Rocky Creek during the past five years by planting vegetation along its banks and monitoring its water quality. Pictures of some of the stream crossing signs are located in Appendix A of this report.



Figure 4: Stream Crossing Sign

5. Opelika—On Track Magazine

The City publishes a magazine twice a year that is mailed out to Opelika residents and businesses. This magazine outlines events in the City and informs citizens of the City Council’s work sessions and scheduled meetings for citizens to voice concerns to the City. Opelika—On Track also highlights the trash and garbage that the Solid Waste Department collects, along with important City contact information for citizens.

In the Summer 2015 edition, an article was written to introduce all the citizens of Opelika about the importance of storm water pollutants, how to identify them and who to call when they are detected. In the Spring/Summer 2016 edition of the Opelika—On Track publication, an advertisement was placed in the magazine reminding the citizens of who to call when an illicit discharge is detected in the public waterways of Opelika. The article and advertising in these two On-Track publications are attached in Appendix A of this report.



Figure 5: Opelika On Track Magazine





B. Public Involvement/Participation

1. Citizens Advisory Committee

The City of Opelika is an active member of the City of Auburn, Lee County, City of Opelika, Auburn University, and City of Smiths Station (ALOAS) Citizen Advisory Committee. This committee meets once a quarter to discuss issues related to water quality in Lee County’s waterbodies. The committee also helps to develop two (2) new storm water impact related brochures every year for the Lee County area. The City of Opelika and other participants in ALOAS, sponsored and participated in an erosion and sediment control workshop at Auburn University’s AG Heritage Barn on December 10, 2015. The City of Opelika donated \$250 to the organization cost of the seminar. ALOAS sign-in sheets for the quarterly sign-in meetings for the 2015-2016 permit year, a resolution and invoice for the sponsorship of the erosion and sediment control work shop are located in Appendix B of this report.

2. Save Our Saughatchee (S. O. S.)

The City of Opelika has participated in the watershed management and preservation activities of Save Our Saughatchee (S.O.S.). S.O.S. is affiliated with Alabama Water Watch, and its members periodically collect E. Coli and other water quality samples from designated stream locations to identify potential problem areas. This group also holds periodic clean-ups and quarterly meetings.

The City of Opelika was also pleased to become a financial sponsor of the S.O.S. program by donating \$350 to the organization for water testing supplies and materials, as well as committing support and testing throughout the year in the streams within the Opelika City Limits. A copy of this invoice for financial support of S.O.S is attached in Appendix B of this report.

3. Keep Opelika Beautiful

Keep Opelika Beautiful (KOB) is a non-profit organization located in Opelika, Alabama and is affiliated with Keep America Beautiful. Mrs. Tipi Miller is the energetic director of KOB, and their goal is to educate the City of Opelika’s citizens about the importance of a clean and beautiful environment. The main focus areas of KOB are litter prevention, recycling, and beautification. KOB’s website, www.keepepelikabeautiful.com offers more information about upcoming activities and ways to get involved. Events include the following and details of these events are elaborated on later in this report:



Figure 3: KOB Homepage





- Citywide Cleanup
- Garden in the Park
- Electronics Recycling
- Adopt-A-Mile Program
- Beautification Committee
- Clean Campus Program

4. Recycling Program

The City of Opelika Solid Waste Department has experienced many changes and improvements over the past year, including the changing of name, and the positive appearance, to Opelika Environmental Services. This name change with the implementation of the curb side recycling program, conversion to single-stream recycling and the establishment of a Central Recycling Center (see photo below) has increased the total tonnage of recycled materials from previous years. The total quantities of specific materials collected are listed in the Table below. The City still has five convenient single stream drop-off sites that are available throughout Opelika where citizens can bring their recyclable materials:

- Denson Drive Recreation Center – 1102 Denson Drive
- Covington Recreation Center – 213 Carver Avenue
- Westside Wastewater Treatment Plant – 1017 Grand National Parkway
- Floral Park – 600 Floral Park
- Opelika Recycling Center—765 Jeter Avenue

Opelika Environmental Services increased the amount of recycled material from 442 tons to 502 tons of recycled materials to collection vendors during 2015.



Table 5.1: Recycled Materials (2015-2016 Permit Year)

Media Collected	Amount Collected (Tons)
Plastics	8.57
Glass	1.29
Paper (includes Newspaper and Phonebooks)	56.42
Aluminum	1.16
Steel	5.84
Cardboard	361.12
Single Stream material	65.74
Electronics	1.09
Clothing	0.54





5. Pet Waste Disposal

During this current reporting year, The City of Opelika maintained six (6) pet waste receptacles in the downtown area, at local parks, and walking trails for the proper collection of pet waste. The City services these stations on an as needed basis. The downtown area's residential development continues to grow, and with this growth of residents there is an increase in pet concentration. These pet receptacles provide these residents incentive to properly dispose of the waste to prevent it from getting into and polluting the City's storm water system.



Figure 4: Pet Waste Disposal Station

6. Electronics Recycling

The City of Opelika co-sponsored, along with KOB, Auburn University, the City of Auburn, and Lee County, an electronics, appliance, and document shredding recycling events, staffed by city employees as volunteers on Saturdays. A drop-off site was established for citizens to bring their electronics and appliances. Volunteers manned the drop-off site and assisted citizens with the handling of the recycled goods. The event this March produced more recycled materials than any other event held by the co-sponsored agencies. Pictures and a newspaper article from the event are located in Appendix B of this report.

7. Litter Survey

KOB conducts an annual litter survey to provide an objective means of measuring the amount of litter on City streets, parks, schools, commercial and industrial sites, and residential neighborhoods. Ten random sites are inspected each year in all four quadrants of the City. Each site is evaluated by four scorers using a numerical scale between 1.0 and 4.0, with 1.0 being a site with little to no litter and 4.0 being a site needing an organized cleanup effort. Scores from all four evaluators are recorded, averaged, and then compared with quadrant scores from previous years. A copy of 2015's litter survey and map is located in Appendix B of this report. After the inspections and survey, KOB contacts the citizens and management of the areas that receive a poor rating to notify them of the problems. Areas that receive improved ratings from previous inspections are also contacted and rewarded with commendation and recognition.



8. Clean Campus Program

KOB conducts an annual contest among Opelika City Schools to encourage litter collection and cleanliness on all school campuses. KOB board members rate each of the participating school campuses for overall appearance, amounts of uncollected litter on the school grounds, and neatness and cleanliness in halls, classrooms, lunchrooms, and restrooms. KOB has a liaison teacher in each school that coordinates environmental lessons and a hands-on project for their schools. Some examples include a hummingbird habitat, vegetable garden, and litter pickup. KOB meets with the liaison teacher and/or principal quarterly to assess the program.

9. Citywide Cleanup

Approximately 200 volunteers participated in KOB's annual Citywide Cleanup on March 5, 2016. Concerned citizens, as well as school groups, church groups, and civic clubs organized their efforts to remove litter and trash from public streets, parks, streams, and vacant lots throughout Opelika. The collected litter and trash was placed into refuse trailers provided by the City of Opelika Solid Waste Department. A local news article that was printed about the details of this event as well as various photographs are included in Appendix B of this report.



Figure 5: Students painting azaleas at Cleanup

10. Adopt-a-Mile Program

Nine organizations currently participate in the City of Opelika's Adopt-a-Mile Program, which is sponsored by KOB. Each organization has been assigned a one-mile road segment in Opelika and is responsible for maintaining that segment in a litter-free condition. The City of Opelika and the Alabama Department of Transportation (ALDOT) have placed signs at the ends of each assigned road segment to identify the organizations responsible for maintaining their respective segments. The organizations currently participating are:

- Opelika Rotary Club
- Opelika Kiwanis Club
- Opelika Lions Club
- Opelika Exchange Club
- Auburn-Opelika Elks Club
- Opelika High School Future Farmers of America (FFA)
- Opelika Fire Department
- Wal-Mart Distribution Center
- AFNI
- Grace Falls Church
- His Place
- Exquisite Social Club





11. Citizen Complaints

A citizen has several different ways to report a problem or concern noticed within the City including but not limited to the following:

- Contact the City Engineering and Storm Water Management Department in person, phone, or by email
- Submit a service request through the City's Action Center
- Submit an iReport through the City's mobile application

Section 5.2.2 of the City's SWMP Plan provides a description of the City's web based complaint reporting system (Online 311 System). Due to the high volume of emergency related requests, the City has changed the name of this reporting system to the "Action Center". The Action Center can be accessed from the main page of the City's website (www.opelika.org). Once a citizen creates a profile in the Action Center, the citizen can create and submit a service request. When a service request is received from a citizen, it is reviewed and forwarded to the appropriate City Department. The citizen can return back to the Action Center to check on the status of the service request. Once the service request has been addressed, the citizen receives an e-mail that the service request has been closed and a brief summary of what action was taken.

The City has also developed an application for iPhone and Android devices that was detailed in previous years report. The application was developed to provide another means of convenient communication with the public. This application provides information about the City, News, Calendar of Events, Alerts, iReport, Secret Witness Hotline, Photos and Contact us Section. The iReport feature allows a citizen to report a problem or concern using their smartphone. A log of citizen complaints that have been reported to the Storm Water Manager is included in Attachment B of this report.

12. Community Gardens

The latest project of KOB is partnering with Opelika City Schools, Community Market of the Food Bank of East Alabama, and Auburn University to create Opelika Grows. This includes creating and assisting in the maintenance of gardens at several Opelika schools. KOB has also created a community garden for residents to lease plots. This program teaches citizens how to plant a garden and help use storm water in a productive way.



Figure 6: Community Garden



C. Illicit Discharge Detection and Elimination

1. Illicit Discharge Ordinance

On September 21, 2011 the City of Opelika adopted an Illicit Discharge Ordinance. The purpose of this ordinance is to provide for the health, safety, and general welfare of the citizens of Opelika, Alabama, through the regulation of non-storm water discharges to the storm drainage system to the maximum extent practicable as required by federal and state law. This ordinance establishes methods for controlling the introduction of pollutants into the municipal separate storm sewer system (MS4) in order to comply with requirements of the National Pollutant Discharge Elimination System (NPDES) permit process. The major objectives of this ordinance are:

- (1) To regulate the contribution of pollutants to the MS4 by storm water discharges by any user.
- (2) To prohibit illicit connections and discharges to the MS4.
- (3) To establish legal authority to carry out all inspection, surveillance, monitoring, and enforcement procedures necessary to ensure compliance with this article.

A copy of the ordinance is located in the City's Storm Water Management Plan as well as on record at the Engineering Department and can be electronically downloaded from the Municode web link below:

https://www.municode.com/library/al/opelika/codes/code_of_ordinances?nodeId=COOR_CH7DRFLCO_ARTIILDICOSTDRSY

There have been an increased number of reports to the Engineering Department of potential illicit discharges in the City due to the increased awareness campaigns sponsored by the City. Many of these incidents have been reported to, and directly handled by the Hazardous Waste Department within the Opelika Fire Department (OFD). OFD has procedures and trained personnel to handle these procedures before the discharge reaches the City's waterways. A list of these reports, as well as photos and documentations are in Appendix C of this report.

2. Storm Sewer System Map

The Engineering Department is continually developing and refining the city-wide storm sewer system map. The map delineates drainage basin boundaries and indicates drainage structures and bodies of water. The map was completed and submitted to ADEM prior to December 8, 2006 and is being updated and revised according to developments and changes to the system. Copies of the maps are on record at the Engineering Department and can be electronically transmitted if requested.

3. Illicit Discharge Dry Weather Screening and Monitoring Plan

The City has committed to screening all outfalls located within the City's MS4 area by March of 2018. To facilitate the screening process the City is continually implementing a Document Management System Citywide that will automate and record all inspections and reviews. It is anticipated that this inspection procedure will streamline the screening and analysis of the outfalls within the City to determine the function and effectiveness of the outfall as well as any detection of an illicit discharge coming from the





system. During the 2015-2016 permit year, the City viewed, and completed inspections on 20% of known outfalls. This will be incorporated to accelerate the current monitoring plan so the City will achieve its goal of having all the outfalls screened by March of 2018. According to the City's GIS inventory, there are 192 outfalls in Opelika's storm water system. The City has inspected 40 of these outfalls (20%) and has documented these inspections with reports and photographs. The list of outfalls, Inspection records, map, and an example of the photograph documentation is available in Appendix C of this report.

4. Geographical Information System (GIS)

The Engineering and Information Technology Departments are continuing the process of developing an electronic version of the storm sewer system map. A consultant was originally hired in 2009 to begin the process of creating a Geographical Information System (GIS) and to collect field data for the system. The consultant has completed the basic mapping and data collection of the storm drain structures. Culverts, inlets, and discharge points are located with Global Positioning System (GPS) hardware, inventoried, and photographed. The consultant estimates that they collected data on approximately 5,900 storm water features. These points are then inserted as a layer on the City's GIS map. The City is now coordinating with Auburn University to have students perform more detailed survey and measurements to the storm sewer system within the City. With this advanced and more detailed information, the City will be able to more accurately detect, design, and predict storm water and flooding issues in its system.

The City's GIS inventory currently contains a total of 12,243 storm water structures (inlets, junction boxes, headwalls, retention and outfalls) and 144.08 miles of storm water culverts. The GIS inventory also contains a total of 6,109 sanitary sewer manholes and 282.26 miles of sanitary sewer mains (gravity and force). Maps and images of the City's GIS data that illustrates this infrastructure are available upon request, but are not informative enough to include as an illustration in the scale of this report.

5. Grease Management for Food Service Establishments

On February 21, 2012, the Opelika City Council adopted an ordinance to aid in the prevention of sanitary sewer blockages and obstructions from contributions and accumulations of fats, oils, and greases into the sanitary sewer system from industrial and/or commercial establishments, particularly food preparation and service facilities. The ordinance creates a permitting process for food service establishments that generate grease waste into the sanitary sewer system, establishes requirements for the installation and maintenance of grease traps and interceptors, and defines penalties for those establishments who are not in compliance. A copy of the ordinance is located in the City's Storm Water Management Plan as well as on record at the Engineering Department and can be electronically downloaded from the Municode website at the link below:

https://www.municode.com/library/al/opelika/codes/code_of_ordinances?nodeId=COOR_CH28UT_ARTVIIGRMAFOSEES_S28-357GRINGRTRRE





D. Construction Site Storm Water Runoff Control

1. Erosion and Sediment Control Ordinance

The City of Opelika enacted a City-wide Erosion and Sediment Control ordinance in June, 2002. The ordinance addresses permitting, plan review and approval, inspections, and enforcement, and is applicable to all construction sites. All construction plans for public works improvements, utility installations/relocations, commercial sites, industrial sites, multi-family residential sites, and institutional sites must include a phased best management practices (BMP) plan that is submitted to the Engineering Department for review and approval prior to the issuance of a building permit or notice to proceed. A copy of the ordinance is located in the City's Storm Water Management Plan as well as on record at the Engineering Department and can be electronically downloaded from the Municode website at the link below:

https://www.municode.com/library/al/opelika/codes/code_of_ordinances?nodeId=COOR_CH7DRFLCO_ARTIIIERSECO

2. QCP / QCI Personnel

City Engineer Scott Parker, P.E., serves as the City of Opelika's Qualified Credentialed Professional (QCP). David Chapman, Brady Pollock, John Harris and Jeff Kappelman are certified as a Qualified Credentialed Inspectors (QCIs) by the State of Alabama. Copies of Mr. Parker's Professional Engineering license and Mr.'s Harris, Pollock, Chapman, and Kappelman's current QCI certification numbers are located in Appendix D of this report.

3. Best Management Practices (BMP) Review and Approval

The City of Opelika requires the submission of a Best Management Practices (BMP) plan by a registered professional for review and approval prior to the issuance of a building permit or ground disturbance permit. The Engineering Department reviews each plan for compliance with the City's Erosion and Sediment Control Regulations and the 'Alabama Handbook for Erosion Control, Sediment Control and Storm Water Management on Construction Sites and Urban Areas'.

As part of this BMP review and approval process, the City of Opelika Engineering and Public Works Departments issue a "Land Disturbance Permit – Site Plan Review and Notice to Proceed" form that documents the review and approval process for all commercial site development projects. This form was developed in conjunction with the Post Construction Storm Water Ordinance detailed in Section E of this report. The City of Opelika Engineering and Public Works Departments reviewed and approved BMP plans for 19 commercial projects in the 2015-2016 permit year and issued Land Disturbance Permits for them. These projects are listed below and the Land Disturbance permits issued for each development are attached in Appendix D of this report.

- Medical Office Building (MOB) #2
- Medical Office Building (MOB) #3
- Opelika Farmers Market





- Oral & Facial Surgery
- The Paces Apartments at the Estates
- Tiger Square
- Golden State Foods
- LE Energy
- Mingledorff's
- CTC Tire and Service
- Dudley Borrow Pit
- Shiloh Residential Development
- Version Wireless Tower site
- Society Hill Road Mini-warehouse
- Chapman H, LLC
- Pharmavite Parking lot
- Saugahatchee Square
- Village at Hamilton Lakes

4. Permitting

The City of Opelika Building Inspection Department issued approximately 1,326 building permits for a total construction cost of \$192,000,000 during the 2015 calendar year. A total of 4,596 code inspections have been performed by department personnel so far this fiscal year. During these inspections, 28 verbal warnings were given and 1 enforcement action was taken for a construction site. A copy of the Building Inspection Department's annual report is located in Appendix D of this report.

5. Enforcement

The City of Opelika Engineering and Building Inspection Departments often combine forces to inspect and monitor the construction site, development site, and home sites of the permits that were issued listed above, and on the Building Inspections Department work permit. When the situation of an erosion sediment control violation occurs, the techniques set aside in the ordinances accepted by the City are utilized. Enforcement actions usually begin with a phone call to the contractor in anticipation for a cooperative and positive response to remedy the situation. If there is not a positive response an email to the violator requesting rectification, and ultimately a certified mailing to the developer is utilized to document receipt and ensure compliance. The City has issued 28 verbal and 1 written enforcements during the 2015-2016 Permit year. In an effort to produce a partnership with development contractors, the City has produced information sheets and reference materials to provide the contractors at the pre-construction meeting. These documents and a list of construction site inspections as well as a record of these verbal and written enforcements are listed in Appendix D of this report.





E. Post-Construction Storm Water Management in New Development and Redevelopment

1. Post-Construction Storm Water Ordinance

The City of Opelika has an ordinance that allows the enforcement of post-construction erosion and sediment control measures outlined within the City's Phase II MS4 permit. This ordinance provides the City with a mechanism to ensure adequate long-term operation and maintenance of post construction storm water management BMPs. A copy of the ordinance is located in the City's Storm Water Management Plan as well as on record at the Engineering Department and can be electronically downloaded from the Municode website at the link below:

https://www.municode.com/library/al/opelika/codes/code_of_ordinances?nodeId=COOR_CH7DRFLCO_ARTIVPONSSTWAMA

According to the City's GIS inventory, there are 140 detention ponds in Opelika's storm water system. The City has inspected 31 of these detention ponds (22%) and has documented these inspections with reports and photographs. The City of Opelika also has a standard form letter and education information that is sent to the owner of the development is post-construction BMP after it has been inspected by the City. This letter, information, and list of detention facilities inspected during the 2015-2016 permit year have been compiled and can be found in Appendix E of this report

The City of Opelika is actively encouraging developers and residents of Opelika, through education, to implement Low Impact Development (LID) practices that were published in a handbook by ADEM and the Alabama Cooperative Extension System at Auburn University. The City of Opelika believes that LID products and procedures are a better post-construction storm water management practice than detention ponds and are highly encouraged in new commercial and residential developments. The Alabama LID Handbook for the State of Alabama are on record at the Opelika Engineering Department and can be electronically downloaded by the following link.

<http://www.aces.edu/natural-resources/water-resources/watershed-planning/stormwater-management/LID.php>

2. Storm Water Runoff Management

The City of Opelika's Public Works Manual requires all new development and redevelopment to comply with a 'no net increase' requirement for storm water runoff. The post-development runoff rate shall not exceed the pre-development runoff rate for various storm events, with the storm event increasing in intensity as the size of the development and/or drainage basin increases. This requirement has been in effect since 1991. A copy of the City's Public Works Manual is on record at the Opelika Engineering office and can be downloaded from the link below:

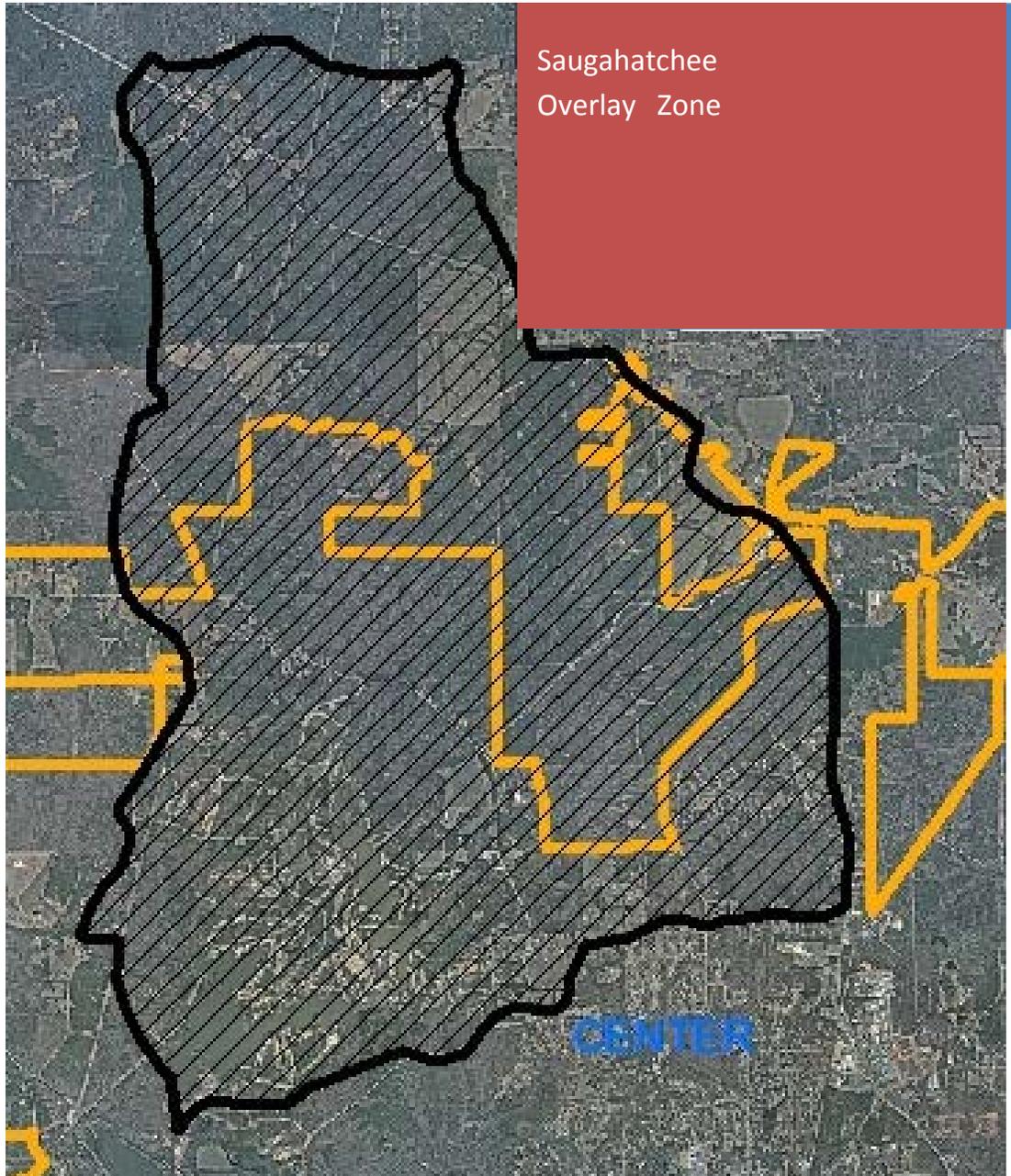
<http://www.opelika-al.gov/Sites/Opelika/Documents/PublicWorks/PUBLIC%20WORKS%20MANUAL.pdf>





3. Saugahatchee Lake Watershed Zoning Overlay

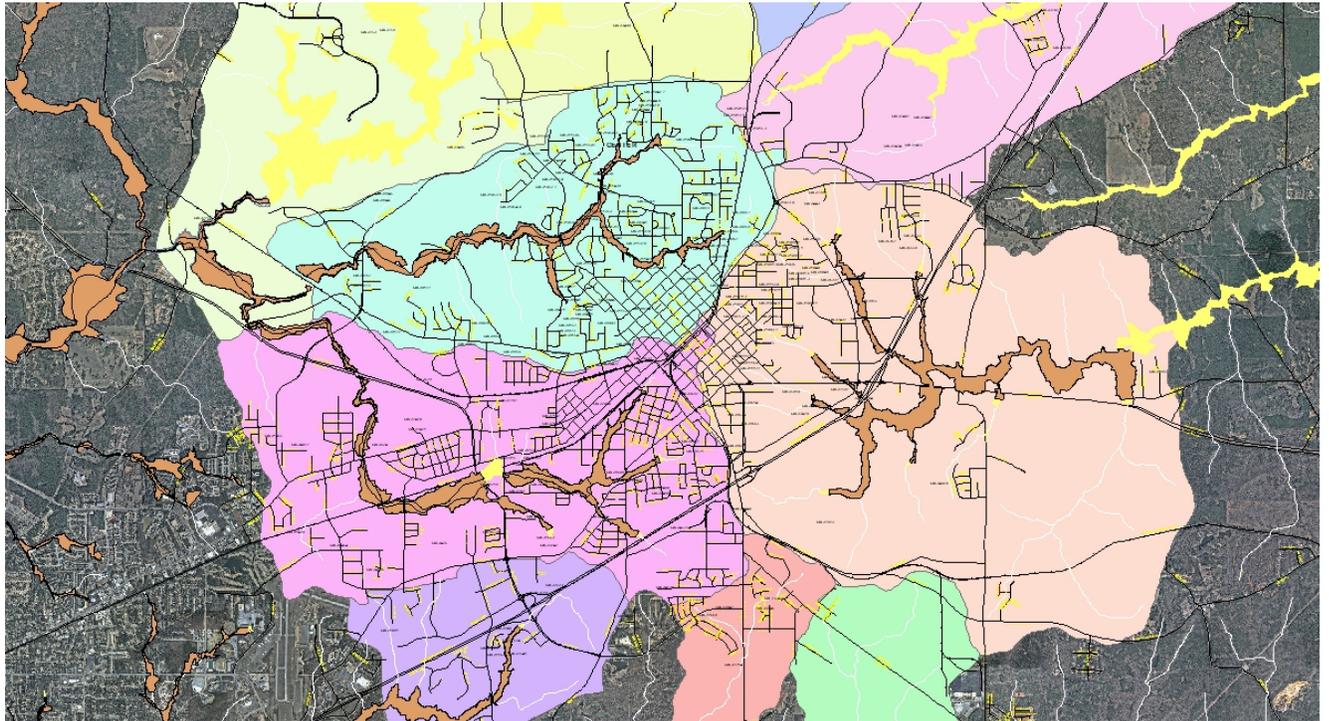
In 2004, the City of Opelika and Opelika Utilities created the Saugahatchee Lake Watershed Zoning Overlay. The zoning overlay limits development density and impervious surface ratios, restricts land parcel sizes where sanitary sewer service is not available, and restricts land clearing for all acreage that drains to Saugahatchee Lake, both inside and outside the Opelika corporate limits. The overlay text is contained in the City’s Subdivision Regulations that is available at the Engineering Department and can be electronically transmitted if requested. The Saugahatchee Lake watershed overlay is illustrated below:





4. Flood Management

The City of Opelika participates in the National Flood Insurance Program (NFIP) that is administered by the Federal Emergency Management Agency (FEMA). Chief Building Official Jeff Kappelman serves as the City's Flood Administrator. New flood zone boundary maps were approved by FEMA and adopted by the Opelika City Council on November 2, 2011. Detailed studies are available for several major creeks and tributaries. An illustration of the different watersheds in the City of Opelika is below:





F. Pollution Prevention/Good Housekeeping for Municipal Operations

1. Drainage Channel Inspection

The Public Works and Engineering Department personnel perform periodic inspections and maintenance operations on all major drainage channels within the City. These inspections include photographs of existing conditions and records of maintenance work performed.

2. Street Sweeping

The Public Works Department operates three mechanical street sweepers that remove debris from all paved streets, gutters, and public parking lots. The street sweeping activities provided by the Opelika Public Works Department are very important to the health and effectiveness of the storm system in the City. The street sweeper is constantly on the streets and works in zones to ensure that all streets are swept at least once per week.



Figure 7: City Street Sweepers

3. Vacuum Trucks

The City of Opelika owns and operates two storm water 'vac-trucks' that remove sediment, clogging debris, and trash from inlets and culverts.

4. Bagging of Leaves and Grass Clippings

The City of Opelika, through press releases and public service announcements, regularly encourages all residents to place their leaves and grass clippings in bags for curbside pickup to help minimize the likelihood that the leaves and clippings will be washed or blown into the storm water system. The City of Opelika has recently purchased a leaf vacuum truck that is specifically designed to remove un-bagged leaves and grass clippings from the side of the roadway. The efficient and timely removal of the loose debris further reduces the likelihood of this material getting into the storm water system.



Figure 8: City Vacuum Truck

5. Employee Training for Illicit Discharges

The City of Opelika has generated a 45-minute Power Point presentation that was used by Storm Water Coordinator Harris to educate all 342 City employees with the information and facts of illicit discharge and reporting during the 2015-2016 permit year. The response has been very positive by the City employees and managers. The sign-in sheets, photos, and presentation highlights are in Appendix F of this report.



6. Bridge Inspections

The City replaced the deficient bridge on Oak Bowery Road over Rocky Brook Creek in the Spring/Summer of 2015. Also, six (6) City maintained, storm water related bridges and culverts were inspected by the City's bridge inspection consultant during the 2015-2016 permit year. They are listed in Table 6.1 below.

Bridge Number	Location
No. 05985	Anderson Road over Halawakee Creek
No. 08771	Spring Villa Road over Uchee Creek
No. 10231	Wigdon Road over Saugahatchee Creek
No. 19634	White Road over Rocky Brook Creek
No. 20026	Thomason over an Unnamed Tributary
No. 21308	Oak Bowery Road over Rocky Brook Creek

Table 6.1: Bridge Inspections (2015)

7. Street Resurfacing

The City of Opelika resurfacing program for the 2015-2016 permit year resurfaced over 6-miles of City maintained streets. The City also paved 0.30-miles of the dirt road section of East Johnson Road during the permit year. The resurfaced street segments and their respective mileage lengths are shown in Table 7.1 below.

Table 7.1: Street Resurfacing (2015-2016)

Resurfacing Areas	Road Length
Oak Bowery Road from Ridgewood Court to Blackhawk Drive	0.11 Miles
Oak Bowery Road From Cannon Gate to Veterans Parkway	0.66 Miles
Laurel Street from Bonita Avenue to Piedmont Street	0.26 Miles
Terracewood Drive from Bonita Avenue to Waverly Parkway	0.50 Miles
Denson Circle from Denson Drive to Denson Drive	0.12 Miles
Denson Place from Denson Drive to Cul-de-Sac	0.06 Miles
Anderson Road from Andrews Road to Northpark Drive	1.17 Miles
Anderson Road from Westpoint Road to Northpark Drive	0.42 Miles
Evans Drive from Highpoint Road to Sanders Creek	0.12 Miles
Sanders Creek from Evans Drive to Cul-de-sac	0.27 Miles
Lancelot Lane	0.03 Miles
King Lake Road from Pepperell Parkway to end	0.03 Miles
Simmons Street from 2 nd Avenue	0.03 Miles
Old Columbus Road from Marvyn Parkway to Uniroyal Road	2.23 Miles
Hanson Court from Hanson Street to Cul-de-sac	0.10 Miles
Saugahatchee Lake Road from Grand National Parkway to Cul-de-sac	0.12 Miles





8. Street Maintenance

The City of Opelika Public Works Department performed maintenance activities as needed during the 2015-2016 permit year. Maintenance areas addressed are listed below in table 8.1.

Table 8.1: Public Works Maintenance Activities

Activity	Frequency
Clean Drainage Swales	As needed
Clean Storm Drain Inlets	As needed
Clean Drainage Culverts	As needed
Repair Drainage Swales	As needed
Repair Drainage Culverts	As needed
ROW Mowing	As needed
Street Sweeping	Once per week
Litter Collection	Continuously
Maintenance of Adopt-A-Mile Areas	Continuously

9. Chemical Use

The City of Opelika Public Works and Engineering Departments maintains trained and certified personnel in the application of pesticides, including restricted-use pesticides. The certified personnel know the correct procedure for the application of pesticides, information on the proper use of fertilizers and other chemicals typically used to maintain athletic fields, and BMPs for trees, shrubs, and turf that are intended to reduce the need for pesticides, fertilizers, and irrigation. Storm water Coordinator Harris has a Certified Pesticide Applicator permit. # 061686588.





6.0 Summary

6.1 2015-2016 Permit Year

This past permit year, the City of Opelika has made huge strides growing, developing and improving the entire Opelika MS4 program. The addition of a full time, experienced Storm Water Coordinator to the Engineering Department, has illustrated a financial and comprehensive effort to meet, and exceed the goals of the City's current Storm Water Management Plan. The Storm Water Coordinator has been very accessible to the citizens of Opelika, and to other public partners and stakeholder groups. The Storm Water Management Department, under the guidance of the City Engineer, has identified current program strengths and improvements, and has many attainable goals for the upcoming 2016-2017 permit year.

6.1.1 Program Strengths

The City's strengths are the result of the community that works together to help provide for a safe and clean environment for all citizens. With the continued growth and development of the community, the City looks to make improvements to the roadway transportation system, closed storm water collection system, and open air waterway system infrastructure throughout the City. The multiple departments, and leadership of the City, are committed to financially supporting the improvements of the aging infrastructure of the City instead of just covering them up as has been the practice in the past. This commitment, although challenging, is a strength of positive change that has not been evident in the past.

With the increased staff in the Engineering and Storm Water Management Departments, the City will continue to increase inspections, and enforce construction erosion and sediment control measures outlined within the City's Phase II MS4 permit. This past year, the City has documented increased education of the City employees with the mandatory illicit discharge reporting training. The added advertising in the City's publications, as well as involvement in civic activities, has increased the education of citizens of all ages to the importance of water quality and pollution reporting activities. This exposure is evident in the increase in public reporting of concerns of water quality and illicit discharge. The City will continue to add exposure of environmental, water quality, and erosion control awareness in the community with the proven methods of the past, as well as innovative efforts in the future. This education will be more evident through an increase of citizen reporting of violations, and these efforts are vital to this process. The planned improvement of the infrastructure system, and the increased testing, will provide the City with a mechanism to ensure adequate long-term operation and maintenance of post-construction storm water management BMPs.





These program strengths will further lead to a more positive and more involved citizenry attitude, which will demand the responsibility and the best service from the public servants. Some of the City's other strengths are more closely identified as follows:

- Keep Opelika Beautiful (KOB) is a group that works to educate the citizens of Opelika on the importance of a clean environment and promote public interest in public involvement.
- The City of Opelika is fortunate to be able to financially and personally partner with great civic groups within the area like Save Our Saugahatchee (SOS) and ALOAS. These groups provide great input on the City's program, and also help the City to develop the best programs.
- The City requires a pre-construction meeting for all developments to discuss project communication and initial erosion control inspections for construction sites. These meetings with the contractors, developers, and designers increase the awareness of the City's policies and procedures throughout the development procedure.
- The City's post-construction storm water ordinance provides regulations and guidance with permitting and tracking of developments from the initiation to the long term inspection and maintenance of the post-construction storm water facilities.

6.2 Program Improvements

The City of Opelika has shown commitment in the past permit year by adding key leadership to the Storm Water Management Division, within the Engineering Department, by bringing on an experienced, energetic, and dedicated coordinator. This new coordinator has been given authority, and resources to meet, and exceed the requirements of the Storm Water Management Plan (SWMP). This report contains evidence of meeting these requirements and installing a solid base to continue to meeting and exceeding the requirements set forth.

Improved tracking and recording technology (ENER-Gov), is currently being implemented by the City Administration, through the further development of the GIS system and document management system. This technology will allow for more effective and efficient monitoring and tracking of developments, inspections and violations that are required by the City's SWMP. This will allow the City to meet the designated goals set.





7.0 Goals for the 2016-2017 Permit Year

This past year The City of Opelika made huge strides in improving the entire Opelika MS4 program. Opelika hired a full time, experienced Storm Water Coordinator. He has been very accessible to the citizens both within the city and multiple public partner and stakeholder groups. The Engineering and Storm Water department has identified many attainable goals for the upcoming 2016 permit year. An outline of these goals are listed below:

(Note: while the proposed 2016 goals are listed below, and at time of this report, ADEM's 2016 Permit Regulations have not been accepted, thus still draft. It is anticipated that these regulations will cause the City of Opelika and all MS4 cities to amend specific elements, and program requirements when they are established by the Department)

- The City of Opelika will rewrite their 2012 SWMP plan to reflect the new 2016 enhancements and ADEM permit regulations.
- The City of Opelika will continue to support, and involve stakeholder groups and partners to initiate a program to identify and stencil storm drains and creeks for awareness of streams and watersheds.
- The City of Opelika, the Opelika Chamber of Commerce, and Keep Opelika Beautiful (KOB) will combine resources to establish an Opelika Clean Water Business Partnership to work with retail establishments and businesses to become more conscientious of the water quality needs of the City. This effort will include education and incentive practices to obtain more participation for the businesses to police their parking lots and ditches to arrest all trash that enters flood plains and streams.
- The City of Opelika will continue to update the GIS with the locations of all storm water infrastructure.
- Opelika will continue to provide educational events in the City to foster citizen involvement, improving storm water impacts. This includes KOB, stream clean up, recycling and litter clean-up events.
- The City of Opelika will complete the development and implementation of a comprehensive Post-Construction BMP maintenance standards for commercial developments. The City of Opelika and the Storm Water Coordinator will provide guidance and assistance to the development managers in order to ensure proper installation and maintenance and to build a storm water partnership.





- The City of Opelika key personnel will continue to attend LID seminars and implement feasible choices where appropriate.
- The City of Opelika will roll out its ENER-Gov software program that will assist in the tracking of site work, inspections and violations in land development areas.
- Storm water and IDDE training will continue to all City employees.
- The City of Opelika will continue to develop a program to collect pre-construction turbidity and TSS data for stream base-line evaluation on projects of over 5 acres.
- The City of Opelika will continue random and planned sampling of streams to track contaminants for breach identification and location to eliminate illicit discharge for both chemical and bacteria. This sampling includes, but is not limited to the Ph, Hardness, turbidity, Dissolved Oxygen (DO), and phosphorus (P). This sampling will be expanded, as deemed necessary, to the upper reaches of the streams required to be sampled in the SWMP as well as incorporate other streams in the City's watersheds to ensure health and viability.
- The City of Opelika in conjunction with other local authorities will continue to host and educate contractors, developers, and area-wide engineers at various field seminars and education events. The purpose to engage these entities and enlarge the City's coalition of educated developers and contractors, and improve implementation of the MS4 BMPs and all requirements.
- The City of Opelika will continue to be an organizational leader, sponsor, and volunteer instructor of the Lee County Water Festival with ALOAS, and other Clean Water Partnerships.
- Produce a 2016-2017 permit year annual report by the required submittal date.





Appendix A

Public Education and Outreach on Storm Water Impacts



A3. Lee County Water Festival

Lee County Water Festival Leadership Committee Meeting



Lee County Water Festival

Friday March 20th

Station	Activity	Presenters	Copresenter	Assistant	9:15-9:35	9:40-10:00	10:05-10:25	10:35-11:15
1	Edi.Aqu.	Riley Brice	Debra Brooks	Darnae Hopkins	Cash-Morris Ave (24)	Ellison-Beulah (20)	Gregory-Beulah (23)	Magic Show
2	WaterCycle	Alex James	John Gwin	Rick Zellmer	Lawler-Morris Ave (27)	Cash-Morris Ave (24)	Ellison-Beulah (20)	Magic Show
3	Mini-Fil.	Matt Dunn	Whitney Bell	Ken Busby	Nichols-Morris Ave (25)	Lawler-Morris Ave (27)	Cash-Morris Ave (24)	Magic Show
4	Edi.Aqu.	Hilliard Gibbs	Bertha Gibbs	Tipi Miller	Battle-Morris Ave (26)	Nichols-Morris Ave (25)	Lawler-Morris Ave (27)	Magic Show
5	WaterCycle	Brenda Dockery	Scott Parker	Deborah Hocutt	Turnham-Morris Ave (27)	Battle-Morris Ave (26)	Nichols-Morris Ave (25)	Magic Show
6	Mini-Fil.	Dan Ballard	Gene Hunter	Patricia Ebrahim	Holley-Loachapoka (24)	Turnham-Morris Ave (27)	Battle-Morris Ave (26)	Magic Show
7	Edi.Aqu.	John Harris	Matt Miller	Brooke Burns	Owens-Loachapoka (25)	Holley-Loachapoka (24)	Turnham-Morris Ave (27)	Magic Show
8	WaterCycle	Juanita Gardinski	Katie Dylewski	Carol Threatt	William-Beulah (21)	Owens-Loachapoka (25)	Holley-Loachapoka (24)	Magic Show
9	Mini-Fil.	Rick McCarty	Jimmy Segrest	Joey Hundley	Smallwood-Beulah (23)	William-Beulah (21)	Owens-Loachapoka (25)	Magic Show
10	Edi.Aqu.	Liesa Puckett	Austin Fletcher	Tim Johnson	Manning-Beulah (24)	Smallwood-Beulah (23)	William-Beulah (21)	Magic Show
11	WaterCycle	Jessica Mills	Elisabeth Ingram	Pat Gibson	Gregory-Beulah (23)	Manning-Beulah (24)	Smallwood-Beulah (23)	Magic Show
12	Mini-Fil.	Cliff Webber	Alphonzo Lee	Barbara Webber	Ellison-Beulah (20)	Gregory-Beulah (23)	Manning-Beulah (24)	Magic Show
Station	Activity				10:30-10:50	10:55-11:15	11:20-11:40	11:45-12:25
1	Edi.Aqu.	same presenters as above			Truss - East SS - (25)	Long - Wacoochee - (23)	Wilkins - Wacoochee - (24)	Magic Show
2	WaterCycle				Ealy - East SS - (25)	Truss - East SS - (25)	Long - Wacoochee - (23)	Magic Show
3	Mini-Fil.				Morgan - East SS - (22)	Ealy - East SS - (25)	Truss - East SS - (25)	Magic Show
4	Edi.Aqu.				Kite - East SS - (23)	Morgan - East SS - (22)	Ealy - East SS - (25)	Magic Show
5	WaterCycle				Phillips - East SS - (29)	Kite - East SS - (23)	Morgan - East SS - (22)	Magic Show
6	Mini-Fil.				Ward - South SS - (26)	Phillips - East SS - (29)	Kite - East SS - (23)	Magic Show
7	Edi.Aqu.				Evans - South SS - (26)	Ward - South SS - (26)	Phillips - East SS - (29)	Magic Show
8	WaterCycle				Duke - South SS - (24)	Evans - South SS - (26)	Ward - South SS - (26)	Magic Show
9	Mini-Fil.				Baldwin - South SS - (26)	Duke - South SS - (24)	Evans - South SS - (26)	Magic Show
10	Edi.Aqu.				Frazier - Wacoochee - (22)	Baldwin - South SS - (26)	Duke - South SS - (24)	Magic Show
11	WaterCycle				Wilkins - Wacoochee - (24)	Frazier - Wacoochee - (22)	Baldwin - South SS - (26)	Magic Show
12	Mini-Fil.				Long - Wacoochee - (23)	Wilkins - Wacoochee - (24)	Frazier - Wacoochee - (22)	Magic Show

A-H

VOLUNTEER SIGN IN SHEET - THURSDAY

~~Friday~~

March 20th

Volunteer Name	Initial	Assignment
Adams, Ed	EM	Logistics Support
Alex, James	JAJ	Station 2
Amerson, Alesha	AA	Station 6 Assist
Ascott, Jessica	AJ	Guide (1-3)
Ballard, Dan	DB	Station 6
Barr, Tara	TB	Registration Juan Bar
Bell, Whitney	WB	Station 3
Bentley, Jerry	JB	Registration
Bolden, Tyra	TB	Station 4 Assist
Brice, Riley	RB	Station 1
Brook, Burns	BB	Station 7
Brooks, Debra	DB	Station 1
Burns, Brooke	BB	Station 7
Busby, Ken	KB	Station 3
Bush, Aaron	AB	Runner (7-9)
Cochran, Frank	FC	Logistics Support
Coleman, Valencia	VC	Buses/Assist Guides
Dawson, Rachel	RD	Buses/Assist Guides
Dellinger, LaFaye	LFD	Registration
Dockery, Brenda	B.D.	Station 5
Dunn, Matt	MD	Station 3
Dylewski, Katie	KLD	Station 8
Ebrahim, Patricia		Station 6
Ennis, Kendall		Station 12 Assist
Fletcher, Austin	AF	Station 10
Gardinski, Juanita	JA	Station 8
Gibbs, Bertha	GB	Station 4
Gibbs, Hilliard	HGB	Station 4
Gibson, Pat	PM	Station 11

Doddell, Kim

Station 8 Assist

I-2

VOLUNTEER SIGN IN SHEET - THURSDAY

Friday

March 20th

Volunteer Name	Initial	Assignment
Ingram, Elisabeth	EI	Station 11
Jernigan, Summer	SJ	Station 7
Johnson, Tim	Tmj	Station 10
Lee, Alphonzo		Runner (7-9) Station 12
Linden, Faith	FL	Registration Runner (7-9)
Mason, Pam	Psm	Station 9 Registration
McCarty, Rick	Rcm	Logistics Support Station 9
McCauley, Tom	Tmc	Camera Event Pictures Logistics
Miller, Anne	Am	Station 7
Miller, Matt	Mm	Station 7
Miller, Tipi	Tmm	Station 4 assistant
Mills, Jessica	Jm.M.	Supplies Station 11
Owens, Bob	BO	Station 5 Supplies
Parker, Scott	SP	Registration Station 5
Pippin, Lisa	LP	Station 10
Puckett, Liesa	LP	Station 10
Reese, Antonio	AR	Guide (10-12) Station 3
Richard, Hannah	HR	Guide (7-9)
Samayoa, Karen	KS	Runner (4-6)
Scott, Bre	BS	Runner (1-3)
Scott, Kailey	KS	Station 9
Segrest, Jimmy	JS	Guide (4-6) Station 9
Smith, Morgan		Station 10
Smith, Shelby	SS	Station 10
Stewart, Aspy	AS	Runner (1-3) Station 1
Tart, Grandin	GT	Station 8
Threatt, Carol	CT	Station 8
Webber, Barbara	W	Station 12
Webber, Cliff	BW	Station 11

VOLUNTEER SIGN IN SHEET - THURSDAY

Thursday

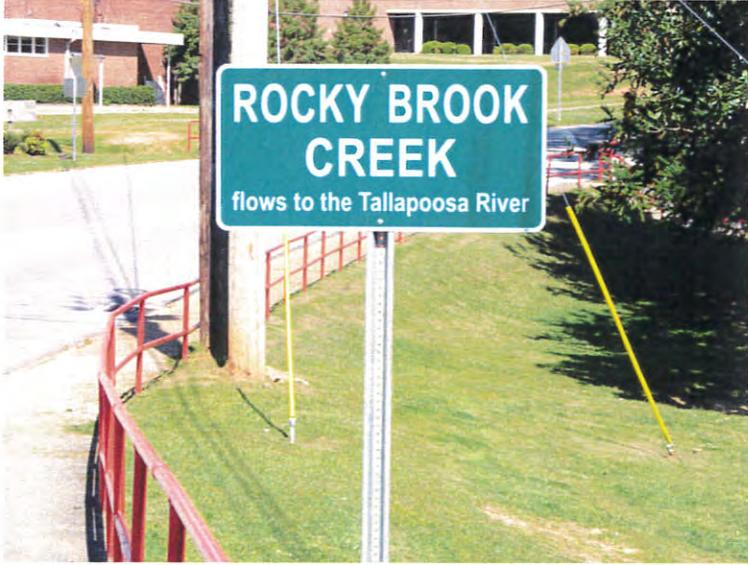
March 19th

Volunteer Name	Initial	Assignment
Adams, Ed	EA	Go to
Aruelo, Louie	LA	Station 5
Ballard, Dan	DMB	Station 6
Bell, Whitney	WMB	Station 5
Bentley, Jerry	JB	Registration
Blackmon, Chazden	CB	Runner
Brasher, Adam	AB	Station 4
Brice, Riley	TR	Station 1
Brooks, Debra	DB	Station 6
Bryant, Ben	BRB	Station 2
Busby, Ken	KB	Station 11
Chisolm, Eucllyde		Station 3
Cochran, Frank	FC	Go to
Curlee, Angela	AC	Station 11
Dellinger, LaFaye	LED	Registration
Desai, Yash		Runner
Dixon, Danielle	D.D	Tour Guide
Dockery, Brenda	B.D.	Station 2
Dondell, Kim		Runner
Drew, Chelsea	CD	Tour Guide
Dunn, Matt	MD	Station 3
Dylewski, Katie	KD	Station 2
Ford, Jessie	JF	Tour Guide
Freeman, Michael		Station 10
Gardinski, Juanita	JG	Station 10
Gibbs, Bertha	BG	Station 4
Gibbs, Hilliard	HG	Station 4
Grub, Rita	RG	Station 7
Gullatte, Ed	EG	Supply <i>Ed</i>
Gullatte, Michelle		Station 1
Halverson, Jennifer	JH	Station 9
Harnson, Alonzo	AH	Station 6
Harris, John	JH	Station 7 <i>John</i>
Hines, Amelia	AH	Camera/Entertainment
Holcutt, Debra	DH	Station 8
Hundley, Joey	JH	Station 9
Hunter, Gene	GH	Station 2 ✓
James, Alex	JX	Station 8 ✓



A4. Stream Crossing Identification Signs

Stream Crossing Identification Signs:





A5. Opelika—On Track Publication

OPELIKA

On Track

Summer 2015



Inside this Issue

page 2	From the Mayor	page 7	Just a Reminder
page 3	School Speed Limits	page 8	OPS
page 4	Your City Council	page 9	Opelika Recycling
page 5	Economic Development	page 10-11	City News
Page 6	Engineering News	Page 12	Important Numbers



photo courtesy of Flip Flop Foto



Presort Standard
U.S. Postage
PAID
Opelika, AL
Permit No. 204

Community Relations
City of Opelika
204 South 7th Street
Opelika, AL 36801

Engineering News

You're Invited to be an Opelika Water Watcher

Everyone in Opelika is invited to become an Opelika Water Watcher. Don't worry, there are no dues and this club is easy to join, all you need to do is enjoy watching water. Sounds easy enough. We all like watching water, either at the beach, lake or at the babbling Rocky Brook Creek at Municipal Park. Even rain water can be enjoyable watching. But wait, there is more. Not only do you get to watch the water, you get to do your part in protecting and improving the quality of the water that flows from your yard, to the street, down the drain to the ditch, and then eventually to the creeks and streams or our fair City.

There are a few basic facts you will need to know to become an Opelika Water Watcher. First, you need to know what can and cannot go to the street and down the drain. Second, you will need to know who to call when a pollutant is discharged into the storm water system.

According to the City of Opelika's Ordinance, Chapter 7-2 defines a pollutant as, *"anything which causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; nonhazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, ...; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, ...; animal wastes; wastes and residues that result from constructing a building or structure; and noxious or offensive matter of any kind."*

Wow, that was a lot! Let us just put it this way, if don't want to drink it or play in it, you don't want it in the water. There were some items on the list that many of us are guilty of: did you see them? Yard waste...that includes grass clippings and leaves are considered a pollutant. These can easily avoid our waterways by bagging the grass and leaves and leaving them off the street away from the roadway storm drains. Yard waste not only does not belong in the water, but it can stop up the pipes and drains in the streets and cause flooding; and nobody needs or wants more flooding.

Now, what should you do when you see a pollutant get into the City's storm water system, either through the storm drains, ditches or creeks? The City of Opelika has many avenues for reporting including the City's "Actrion Center" found on

the City website - www.opelika.org - on the left side of the front page in the "red box"; Or calling the City Engineering Department at 705-5450.

Once a report is made, the City Engineering Department will investigate the source and identify the cause. The Engineering Department is set up to test the water supply to determine the status of the storm water and will assist other departments or agencies to eliminate the source of pollutants.

Once this initial step of water watching is achieved, there is always more that can be done. You could become the educator of others to the rewards of water quality improvements. The City of Opelika has partnered with various civic and educational agencies and will be able to host and conduct educational opportunities to communities and groups that are interested. These short, hands on events can involve the construction of water saving devices such as rain barrels and rain gardens that can be used by individuals to promote and ensure storm water quality.

If there is a group interested the City Engineer will be glad to set these free educations opportunities up.

Please try to do your part in helping the City of Opelika manage and improve the water quality of the streams and creeks that flow through our beautiful City. It is as easy as being willing to watch, report, and become involved. With a little help from each one of you, not only can we improve the quality of our water, we can improve our whole community.

If you have any questions, or would like more information, please feel free to call the Engineering Department at (334) 705-5450.

Stay in touch with us so we can keep YOU informed about all city news and updates!

website:

www.opelika.org

Facebook:

City of Opelika - Community Relations

Download iPhone or iPad App:

"City of Opelika"

Opelika

On Track

Spring / Summer 2016



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Photo courtesy of Mr. David Horton,
Director of Opelika Power Services

City News

Police Department Promotions

Tony A. Amerson

- Promoted to Lieutenant on May 19, 2015
- Current position: Watch Commander in Patrol Division
- Has been with the Opelika Police Department since September, 1997
- Past Positions: Patrolman, COPS Officer, Narcotics Division, Youth Aid Division, Detective in the Investigations Division
- Has also served in the military for 26 years; his current rank there: Master Sergeant in the US Army Reserves.
- Has a degree in Criminal Justice from Troy University



Johnathan Clifton

- Promoted to Lieutenant in November, 2015
- Current position: Detective in the Investigation Division
- Has been with the Opelika Police Department since August, 1999
- Past Positions: K-9 Division, Investigations Division, Detective/Polygraph Examiner
- Has served in the Military Police (MP) Division of the U.S. Army and Alabama Army National Guard for 10 years
- Has a degree in Criminal Justice from Auburn University



John Hester

- Promoted to Sergeant in November, 2015
- Current position: Detective in the Investigations Division
- Has been with the Opelika Police Department since 2010
- Past Positions: Patrol Officer-2 years; Detective Division-3 years
- Has his degree from Auburn University



Ben Jones

- Promoted to Sergeant in March, 2015
- Current Position: Patrol Division
- Has been with the Opelika Police Department since December, 2007
- Past Positions: Patrol Division, Detective in the Investigations Division
- Was a five time "Selected Officer" for the Officer of the Month with the OPD



Alfred White

- Promoted to Sergeant in November, 2015
- Current Position: Detective in the Investigations Division
- Has been with the Opelika Police Department since February, 2004
- Past Positions: Patrolman, D.A.R.E. Officer



New City Employees

John Harris – Engineering Department Storm Water Coordinator

The City of Opelika welcomes Mr. John M. Harris to the City of Opelika's Engineering Department, as the city's new Storm Water Coordinator.



The City of Opelika is committed to continuing the implementation of the City's storm water management program (SWMP) that is the primary tool used to improve the overall water quality in our community. Harris's duties as the Storm Water Coordinator for the City include education and involvement of citizens about water quality, water testing of the streams and creeks for pollutants and tracking and elimination of pollutants. Mr. Harris will also be inspecting-developments and construction sites, ensuring that new developments are maintaining erosion control standards, and detention ponds to make sure the City of Opelika exemplifies the model for water quality. Preventing pollution and maintaining good housekeeping with the City's employees and departments is a key to protecting Opelika's facilities.

Born in Anniston Alabama, John graduated Anniston High School and attended Auburn University, graduating with a degree in Agronomy. John served as an assistant county agent in Talladega County and a pecan pest management specialist in Mobile and Baldwin counties.

He returned to work for the USDA Soil Conservation Service, now the Natural Resources Conservation Service and

OPS
KA POWER SERVICES

IT'S MORE THAN JUST A CUSTOMER SERVICE THING.

IT'S A 24-7, ALWAYS AVAILABLE, TREAT YOU LIKE FAMILY, CALL US ANYTIME WITH A PROBLEM AND WE'LL BE THERE... KIND OF THING.

OPELIKA
POWER SERVICES

600 Fox Run Parkway | Opelika, Alabama 36801
334-705-5170 | www.opelikapower.com

600 Fox Run Parkway | Opelika, Alabama 36801
334-705-5170 | www.opelikapower.com

See Something, say something !

Pollution

Solvents

Paint **Oil**

Waste

MAKE EVERY DROP COUNT

Call Opelika Engineering 334-705-5450

use "Online 311 System"

KEEPING OUR WATERWAYS CLEAN TOGETHER!

As spring begins Opelika has a new direction to spot and work with citizens to alleviate and solve pollution problems for our "water blessed" city. Storm water Coordinator John Harris wants to hear from citizens who spot suspected water contaminating sources. So...if you SEE SOMETHING, SAY SOMETHING!!!

Call "John" (334) 705-5454 or Email JHarris@opelika-al.gov
WE LIVE HERE!



Appendix B

Public Involvement/Participation



B1. Citizens Advisory Committee--ALOAS

ALOAS
 August 13, 2015, 1:30 PM
 Quarterly Meeting
 Bailey-Alexander Complex
 1501 W. Samford Avenue
 Auburn Alabama

Name	Organization	Phone	E-Mail
Alayia Hall	ALDOT - Maintenance	334-242-6923	hallal@dot.state.al.us
Rickard Klingger	ALDOT - Maintenance	334-242-6583	Klingger@dot.state.al.us
Asley Armstrong	ALDOT - Maintenance	334-242-6283	armstrong@dot.state.al.us
Scott Parker	City of Opelika	334-705-5450	sparker@opelika-al.gov
Jim Beckwith	ALDOT - Maintenance	334-242-6283	beckwithj@dot.state.al.us
Denahie Smith	TEMPLE	334-740-6000	DenahieSmith@Temple.com
Ron Estridge	S.O.S	334-821-4970	ronestridge@charter.net
Tom Murray	COA WPM	334-501-7365	tmurray@auburnalabama.org
Ken Baker	COA WPM	334-501-7365	kenbaker@auburnalabama.org
Hea Bink	COA WPM	334-501-7365	HeaBink@AuburnALABAMA.org
FRANK COTHRAN	NRES	334-745-4741	FRANK.COTHRAN@ALUSDA.GOV
SHERRY SMITH	ACES water Intern	334-703-7050	SMITHSH@aces.edu
Alva Jones	ACES	334-703-7050	alvajones@aces.edu
Eric Beaman	ACES	334-703-7050	beaman@aces.edu
Lisa DeLeon	City of SS	334-347-5777	ldeleon@simmsstation.us
Joey Nussling	LEE COUNTY	334-237-7011	jnussling@leeco.us

ALOAS
 November 19, 2015, 1:30 PM
 Quarterly Meeting
 Bailey-Alexander Complex
 1501 W. Samford Avenue
 Auburn Alabama

Name	Organization	Phone	E-Mail
Ed Adams	City of Opelika	334-397-8777	eadams@cityofopelika.us
Denahie Smith	TEMPLE	334-740-6000	Denahie-Smith@Temple.com
John Harris	Opelika	334-399-2199	jharris@opelika-al.gov
Ron Estridge	S.O.S	334-821-4970	ronestridge@charter.net
Scott Parker	Opelika	334-705-5450	sparker@opelika-al.gov
Tom McCarty	Auburn University	334-703-7184	McCarty@Auburn.edu
Matt Dunn	City of Auburn	334-501-7077	mdunn@auburnalabama.org
Joey Nussling	LEE COUNTY	334-237-7011	JoeyN@leeco.us
David Deaton	City of Auburn	334-501-7266	ddeaton@auburnalabama.org
Tom Murray	COA WPM	334-501-7365	tmurray@auburnalabama.org
Eric Nussling	Auburn University	334-844-4785	erice@auburn.edu
JAS PLETT LAMBA	Auburn University	334-844-3531	gokoo5@auburn.edu



ALOAS

March 10, 2016, 1:30 PM
Quarterly Meeting

Bailey-Alexander Complex
1501 W. Samford Avenue
Auburn Alabama

Name	Organization	Phone	E-Mail
Daniel Ballard	CoA WAM	334-501-7367	dballard@auburnalabama.org
John Harris	City of Opelika	334-705-5454	jharris@Opelika-al.gov
Scott Parker	City of Opelika	334-705-4550	sparker@Opelika-al.gov
JOEY HUNTER	LEE COUNTY	334-703-7011	jhunter@lee20.us
LENAINE SMITH	TELEIVE	334-740-6000	LENAINE.SMITH@TELEIVE.COM
Rayton Harle	Risk Management		dph005@auburn.edu
Tom McCantley	Risk Mgmt & Safety	334-740-1524	mcclantp@auburn.edu
Jim BEAUCONTE	ALDOT	334-242-9568	beaumontj@dot.state.al.us
Richard Klingner	ALDOT	334-242-6583	Klingner@dot.state.al.us
LISA DEASON	COSS	334-298-2470	LDeason@smithsstation.us
David NEWTON	Sierra Club #505	334-821-9611	dnewt10@gmail.com



The City of Opelika and other participants in ALOAS sponsored and participated in an erosion and sediment control workshop at Auburn University's AG Heritage Barn on December 10, 2015. The City of Opelika donated \$250 to the organization cost of the seinar.





City of Auburn
 144 Tichenor Avenue, Suite 6
 Auburn, Alabama 36830
 (334) 501-7239

INVOICE 21019

Page 1 of 1

CITY OF OPELIKA
 ACCOUNTS PAYABLE
 P O BOX 390
 OPELIKA, AL 36803-0390

DATE	12/23/2015
ACCOUNT	312343
AMT DUE	250.00
DUE DATE	01/03/2016

AMOUNT ENCLOSED _____

MAKE CHECKS PAYABLE TO THE CITY OF AUBURN
 PLEASE DETACH AND RETURN WITH YOUR REMITTANCE

CITY OF AUBURN

DESCRIPTION	AMOUNT
Miscellaneous Reimbursement for 2015 Erosion and Sediment Control Workshop held December 10, 2015	250.00
Total Amount Due:	250.00

ACCOUNT NO. 312343

DUE DATE: 01/03/2016

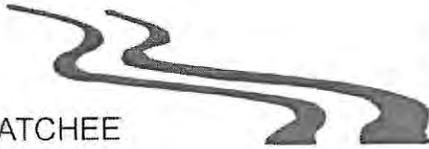
\$250.00

Please Remit to: **City of Auburn**
 144 Tichenor Avenue, Suite 6
 Auburn, Alabama 36830
 (334) 501-7239



B2. Save-our-Saughatchee (S.O.S)

SAVE
OUR
SAUGAHATCHEE



SAVE OUR
SAUGAHATCHEE, INC.
P. O. Box 1387
AUBURN, AL 36831-1387

City of Opelika Engineer

700 Fox Trail
Opelika, Alabama 36803

Subject: SOS Community Monitoring Support Services

Dear Mr. Parker,

Save Our Saugahatchee, Inc. (SOS) is a nonprofit organization that has been working in Lee County for the past 18 years. The group's mission is to *"preserve, protect and restore the Saugahatchee Watershed so that it can be enjoyed by everyone for recreation, environmental education, and ecological uses"* see <https://sites.google.com/site/saveoursaugahatchee>). SOS volunteers currently monitor 28 sites in the Saugahatchee Watershed as certified monitors of the Alabama Water Watch Program. They conduct both water chemistry and bacteriological monitoring on a monthly basis.

In fact, SOS is the most active monitoring group in the entire Tallapoosa Basin based on monitoring activities, with nearly 3,000 water quality data records inputted into the AWW statewide online database (2,241 water chemistry records and 754 bacteriological records). These data are used by an array of agencies, groups and individuals including local municipalities, county agencies, university researchers, and state agencies for water resource management purposes. Data use has included tracking contamination (fecal) of local waters, aiding in monitoring and tracking fish kills, monitoring industrial point source discharges, water monitoring used in implementation of ADEM-funded watershed management plan implementation, municipal and county water monitoring required by ADEM's permitting of Phase II Small Municipal Separate Storm Sewer Systems.

SOS is an all-volunteer organization, and our members give greatly of their time and talent in water monitoring, stream clean-ups, and public outreach. Since AWW's core funding was cut by the Alabama Department of Environmental Management in 2010, local groups have had to pick up the added expense of purchasing water monitoring supplies each year. SOS firmly believes that water monitoring forms a strong foundation for watershed stewardship throughout the community, and makes our local communities here in Lee County safer, healthier and more desirable places to live, work and raise our families. We hope that you agree with these beliefs, and ask the City of Opelika to continue your generous support of our water monitoring efforts so that we can maintain our monitoring efforts going forward.

Our budget for monitoring supplies is approximately \$1,050/year, for purchase of replacement chemicals for our water chemistry test kits and for bacteriological supplies (media, petri dishes and pipettes) to sample ~ 25-30 samples on a monthly basis. We ask that you consider pledging \$350/year to SOS, which when combined with the pledges sought from the City of Auburn and Lee County, would provide SOS the needed funding to continue our monitoring efforts.

Since most municipalities (and Lee County) are required by ADEM to conduct water monitoring and watershed stewardship activities and outreach, this type of support is a WIN-WIN! Local cash-strapped monitoring groups like SOS receive support to continue their water monitoring activities, and local municipalities/agencies can reference this support as their required watershed activities in their annual reports to ADEM. We feel that responsible actions taken by Auburn, Opelika and Lee County can serve as a model for support of local watershed stewardship throughout the state.

We ask that you consider our request, and anxiously await your response.

Sincerely,

A handwritten signature in black ink that reads "Eric Reutebuch". The signature is written in a cursive style with a large, sweeping initial "E".

Eric Reutebuch, Board Member
Save Our Saugahatchee, Inc.

Resolution No. 282-15

WHEREAS, the City of Opelika desires monitor and maintain excellent stream water quality within its City limits and within Lee County;

WHEREAS, Save Our Saugahatchee (SOS) is a non-profit entity that is committed to the same goals of water quality by conducting volunteer water monitor and sampling in the vast waterways of Opelika and Lee County;

WHEREAS, SOS needs supplies to conduct this water quality sampling that are not covered in their non-profit status, it has been requested of the Opelika Engineering Department for a \$350 donation for this service

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Opelika, Alabama as follows:

1. That the Purchasing Agent is hereby authorized to issue a purchase order to Save Our Saugahatchee for the donation.
2. That the funds to pay for the work shall come from the 2015 2016 Engineering Department Budget.

APPROVED AND ADOPTED this the 20th day of October, 2015.



C. E. 'Eddie' Smith, Jr.
President of the City Council
City of Opelika, Alabama

ATTEST:



Robert G. Shuman, CMC
City Clerk - Treasurer



B6. Electronics Recycling



KEEP OPELIKA BEAUTIFUL HOSTS SHREDDING EVENT

Keep Opelika Beautiful hosted its first free, secure document-shredding event Saturday at the Opelika Depot. The event, which ran from 8-11 a.m., was held in conjunction with River Mills Shredding Service of Columbus, Ga. More than 8,000 pounds of paper were shredded and recycled on site. For information about future Keep Opelika Beautiful events, contact Tipi Miller at 334-749-4970 or tipi@keepopelikabeautiful.com.

PHOTO BY GUY LAWRENCE FOR OPELIKA BEAUTIFUL





B7. Litter Survey

This survey uses Keep America Beautiful standards for site ratings.

Litter Survey 2011, 2013, 2015 Comparison

	2011	2013	2015
<u>North</u>	Average	Average	Average
Floral Park	1.80	1.09	1.70
Collinwood SD	1.00	1.00	1.00
Northgate- Oakbowery	1.00	1.13	1.00
Sanders Creek	1.05	1.00	1.00
Northgate- Veterans	1.44	1.00	1.25
Waverly Place	1.19	1.00	1.00
Westside SD	1.90	1.40	1.38
OHA- Pleasant Dr	1.50	1.70	1.24
Medical Arts	1.11	1.30	1.00
Parkway SC	2.48	2.00	2.56
Area Average	1.45	1.26	1.31

	2011	2013	2015
<u>South</u>	Average	Average	Average
Fieldstone SD	1.93	1.43	1.83
Hickory Haven	3.63	3.33	3.45
Hallway SD	1.65	2.73	2.13
Oakhaven	1.68	1.60	1.85
Fox Chase SD	1.00	1.00	1.00
OHA Anitoch	2.05	1.40	1.73
Geneva Street	NA	NA	1.50
Darden Oaks	1.88	1.56	1.63
S. 4th Street	2.28	2.03	2.18
RR Avenue	1.25	2.00	1.38
Area Average	1.93	1.90	1.87

<u>East</u>	2011	2013	2015
Wal-Mart DC	1.55	1.50	1.45
Anderson Lakes SD	1.13	1.20	1.00
West Ridge Park	1.00	1.70	1.75
Ridge Road SD	2.10	2.20	1.08
Stevens Woods	1.38	1.70	1.38
SUSCC	1.23	1.60	1.23
Fox Run	2.10	1.80	1.13
USA Factory	3.25	2.00	1.85
Arbor Spring Apts	2.63	1.60	1.13
Crooked Creek SC	3.00	2.78	2.03
Area Average	1.94	1.81	1.40

<u>West</u>	2011	2013	2015
Ski Lodge	1.73	1.30	1.88
Academy Estates	1.25	1.40	1.05
Midway Manor	1.88	2.10	1.65
Saugahatchee Sq	2.93	2.50	1.00
Executive Park	1.13	1.00	1.03
Wal-Mart	1.19	1.60	1.05
Pepperell Village	1.95	2.10	1.35
Century Park	1.41	2.30	1.03
Hamilton Place	1.16	1.40	1.45
TigerTown	1.26	1.90	1.25
Area Average	1.59	1.76	1.27

<u>SCORING</u>			
No litter	1	Littered	3
Slightly Littered	2	Extremely littered	4

RESULTS: The litter trends from 2011 to 2015 indicate a 42% reduction from the coordination of The "KEEP OPELIKA BEAUTIFUL" program. Our thanks to Tipi Miller, Coordinator and a staff of 52 Volunteers needed to conduct litter surveys.



B8. Opelika City Wide Cleanup

SPRING CLEANING



MEAGAN HURLEY/AHURLEY@OANFW.COM

Scott and Carly Parker pick up trash on Lafayette Parkway on Saturday as part of Keep Opelika Beautiful's Citywide Cleanup event.

Keeop Opelika Beautiful members and community volunteers took part in the organization's annual Citywide Cleanup event Saturday in Opelika.

With more than 20 cleanup sites, volunteers were stationed at areas all throughout the city.

The local event serves as an extension of the national program Great American Cleanup and is an opportunity for residents to join together in the fight against litter, Keep Opelika



Citizens Clean-up Day "Spring Cleaning"



B11. Citizen Complaints

NAME	DATE	ADDRESS OF ISSUE	PHONE #	DATE OF VISIT	summary issue
1807 Bruce st	1/4/2016	1807 Bruce	524-0034	1/4/2016	SEDIMENT, EROSION
2050 Peppereil Apts	1/8/2016	2050 Peoorell		1/8/2016	Sand blast dust
1007 Saughatchee lakes	1/11/2016	1007		1/11/2016	4" lat washed away in creek
Linda Gross	1/11/2016	1502 Covington Ave	787-0693	1/11/2016	overland flow fm park
A&B tire	1/11/2016	3900 peppereil Pky	Hyller	1/11/2016	parking lot dust r.o.
Mike Bailey	2/17/2016	611 6th st	745-5771	2/17/2016	white cloudy water
water board phoned	2/17/2016	610 5th		2/17/2016	white cloudy water
John Griffin	3/1/2016	800 Westpoint Pkwy	678-977-4421	3/3/2016	watershed type
Dave Ketchen	3/7/2016	707 blackberry cove	745-7103	3/7/2016	old cars by lake

NAME	DATE	ADDRESS OF ISSUE	PHONE #	DATE OF VISIT	summary issue
Curtis Williams	11/18/2015	2702 Tally	749-1751	11/19/2015JMH	silt in street, fence breached
Richard Gedig	12/17/2015	Plkwy	745-6790	12/21/2015	washing oil in strom drain
Haley Smith	12/22/2015	2102 Sanders Creek	740-8816	12/23/2015	slight silt downhill



Appendix C

Illicit Discharge Detection and Elimination



C1. Illicit Discharge Incidents Reports with Photos and Documentations



Harris, John M

From: Harris, John M
Sent: Friday, February 26, 2016 10:59 AM
To: 'AANDC120806@yahoo.com'
Cc: Parker, Scott H; Gwin, John M; Kennedy, Jonathan H.
Subject: HAZMAT spill
Attachments: CircleK 6690.jpg; IMG_5426.JPG; IMG_5435.JPG

Friday February 26, 2016

9:15 AM

Asst. Engineer John Gwin informed me the fire department was calling Opelika Storm Water Coordinator, following the IDDE training.

A large diesel fuel spill at 1200 Columbus Pkwy., Circle K (# 6690) had occurred.

9:32 Arrived

Determined the spill was around 15 gallons according to store manager Amanda Weaver.

None of the fuel was allowed to flow more than 55 feet. No storm drain or surface water course was threatened.

Grand berry Creek 1123 feet away. W/S # 031300021106

Manager Weaver called OFD at 9:04. OFD arrived at 9:13.

When I arrived 5 bags of oil dry had been applied.

More oil dry is needed and is in route.

5 fuel pumps had been cut off and OFD was using yellow scene tape blocking traffic from tracking fuel.

Weaver was in constant contact with her off-site supervisor and they are dispatching a clean-up team to arrive within the hour.

I instructed Weaver to replace her 5 bags of oil dry to be ready for next emergency event.

Until Weaver can review her camera and tapes,

it was assumed the driver left the tank unattended, filling the truck tank.

10:12, Storm water Coordinator reported details to Lee County EMA (Johnny Langley)

10:15, Storm water Coordinator contacted State EMA to report spill (June)

Per June's reply; the spill was less than 25 gallons and not endangering surface water, a report did not need to be field or ADEM notified.

State EMA is the point to notify ADEM.

Excellent coordination, very helpful store manager and Opelika fire depart taped of the pumps and OPD gave traffic support.

[3 attachments](#)

John M. Harris

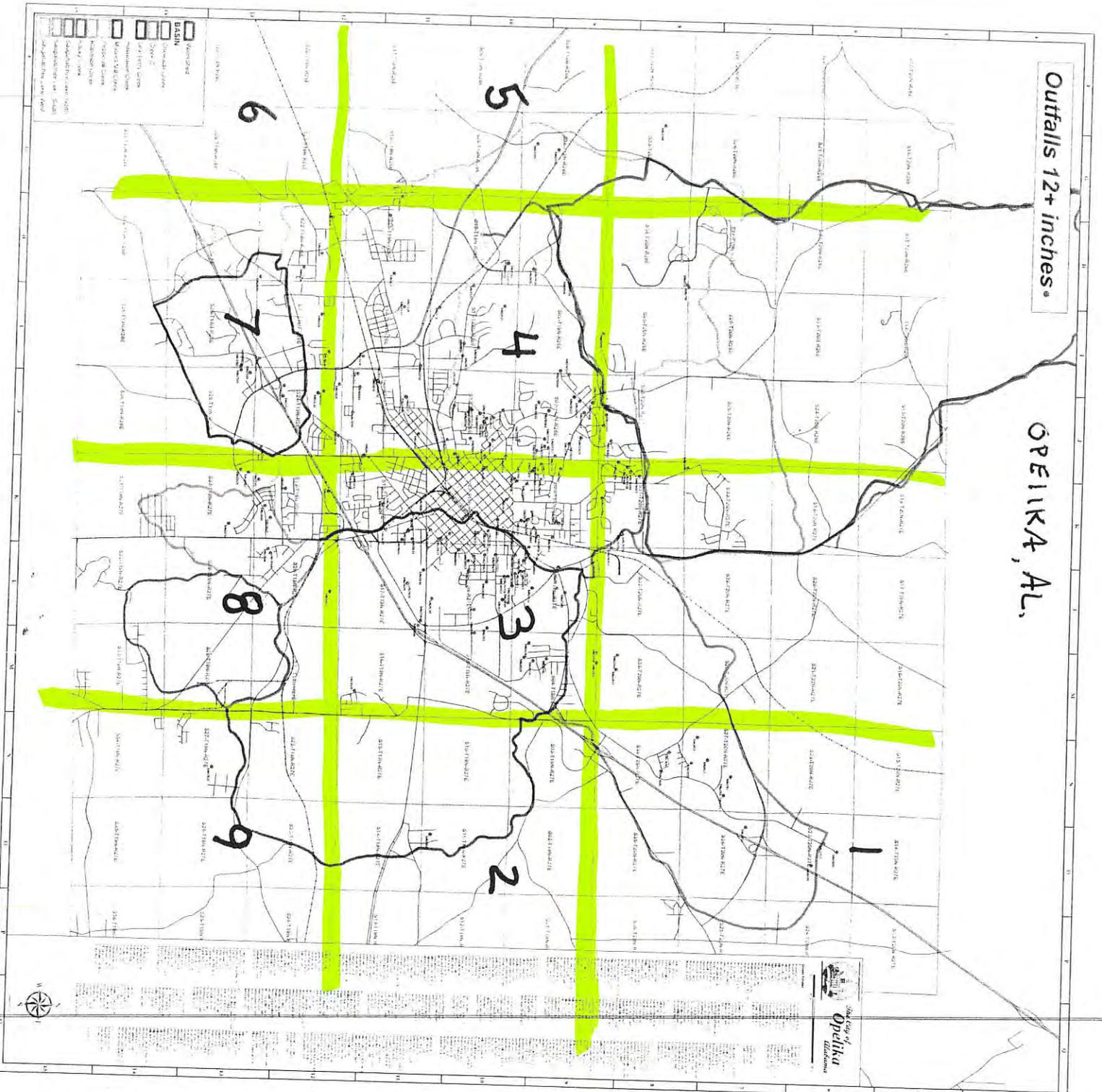
You can't expect what you don't inspect!



C3. Illicit Discharge Dry Weather Screening Map and Monitoring Reports

Outfalls 12+ inches

Opelika, AL



Pg

Nos

1 9

2 3

3 84

4 67

5 5

6 0

7 17

8 11

9 1

197

1915

1

S15-T20N-R27E

S14-T20N-R27E

S13-T20N-R27E

S22-T20N-R27E

S23-T20N-R27E

S24-T20N-R27E

S27-T20N-R27E

S26-T20N-R27E

S25-T20N-R27E

SWJ1682

SWJ2175

SWJ8195

SWJ702

SWJ787

SWJ784

SWJ785

SWJ827

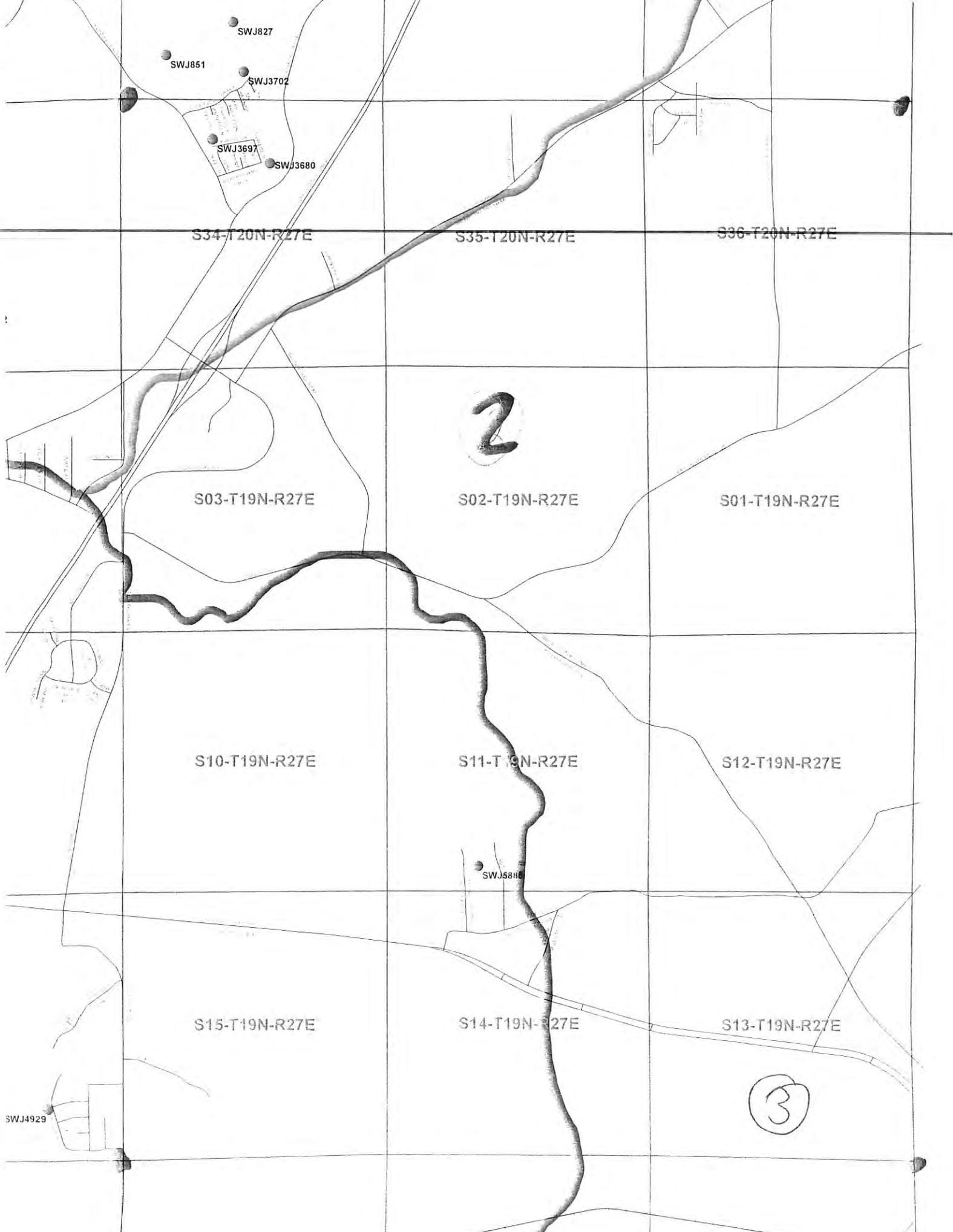
SWJ851

SWJ3702

SWJ3697

SWJ3680

11



SWJ827

SWJ851

SWJ3702

SWJ3697

SWJ3680

S34-T20N-R27E

S35-T20N-R27E

S36-T20N-R27E

2

S03-T19N-R27E

S02-T19N-R27E

S01-T19N-R27E

S10-T19N-R27E

S11-T19N-R27E

S12-T19N-R27E

SWJ5888

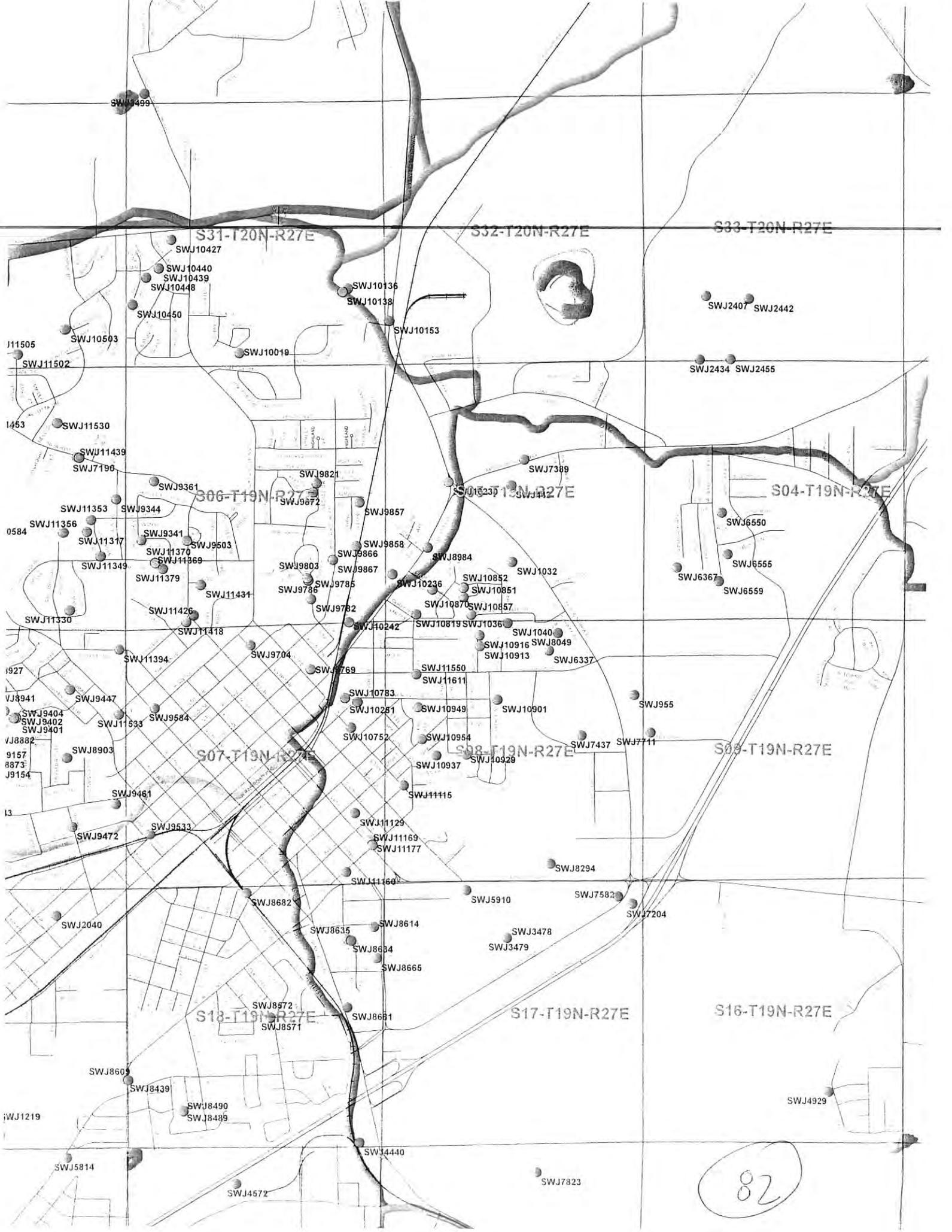
S15-T19N-R27E

S14-T19N-R27E

S13-T19N-R27E

3

SWJ4929



82

S31-T20N-R26E

S32-T20N-R26E

S33-T20N-R26E

SWJ7998

S06-T19N-R26E

S05-T19N-R26E

S04-T19N-R26E

SWJ7756

SWJ11457

S07-T19N-R26E

S08-T19N-R26E

S09-T19N-R26E

3

S18-T19N-R26E

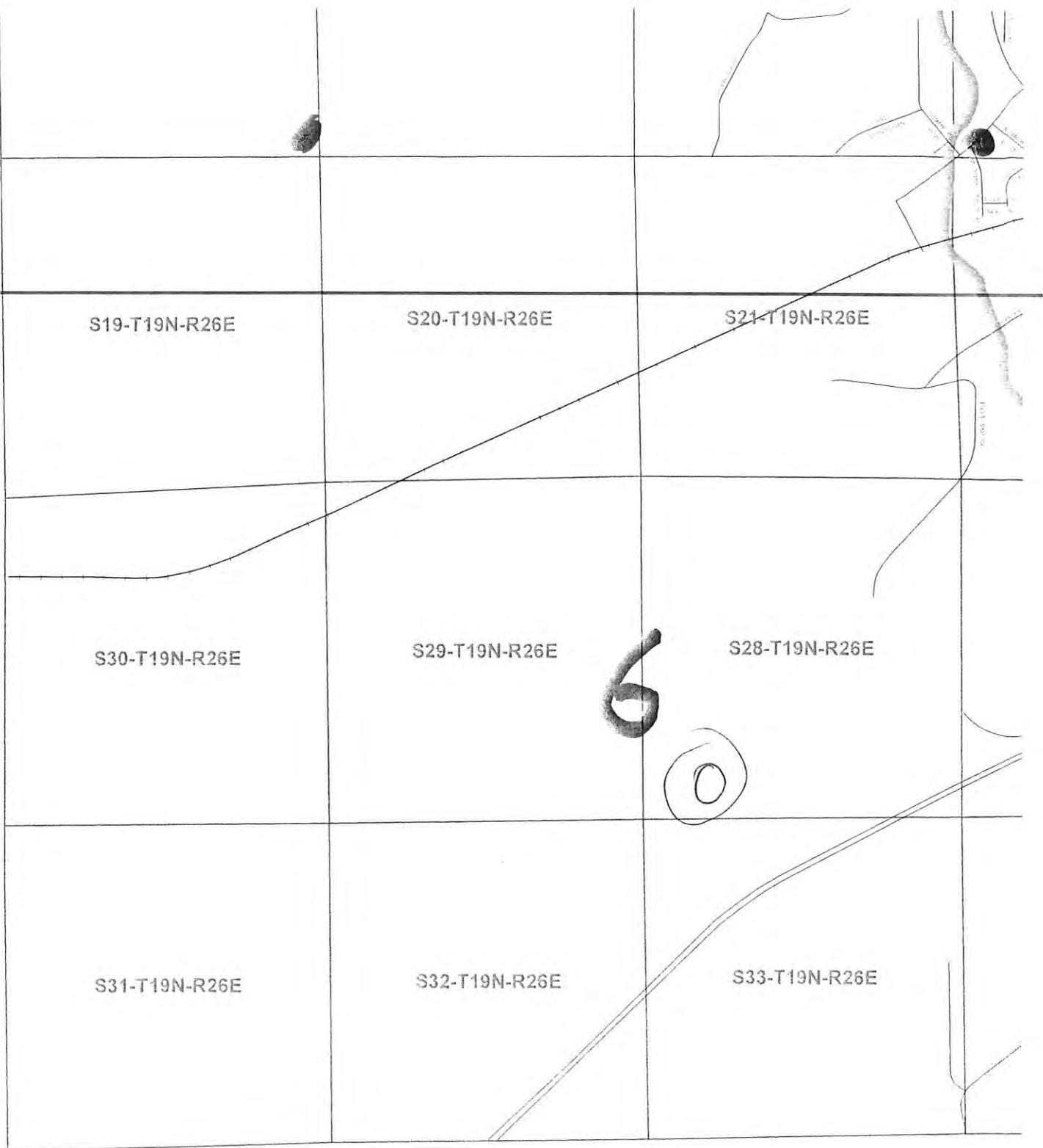
S17-T19N-R26E

S16-T19N-R26E

SWJ1455

SW

SWJ1



S19-T19N-R26E

S20-T19N-R26E

S21-T19N-R26E

S30-T19N-R26E

S29-T19N-R26E

S28-T19N-R26E

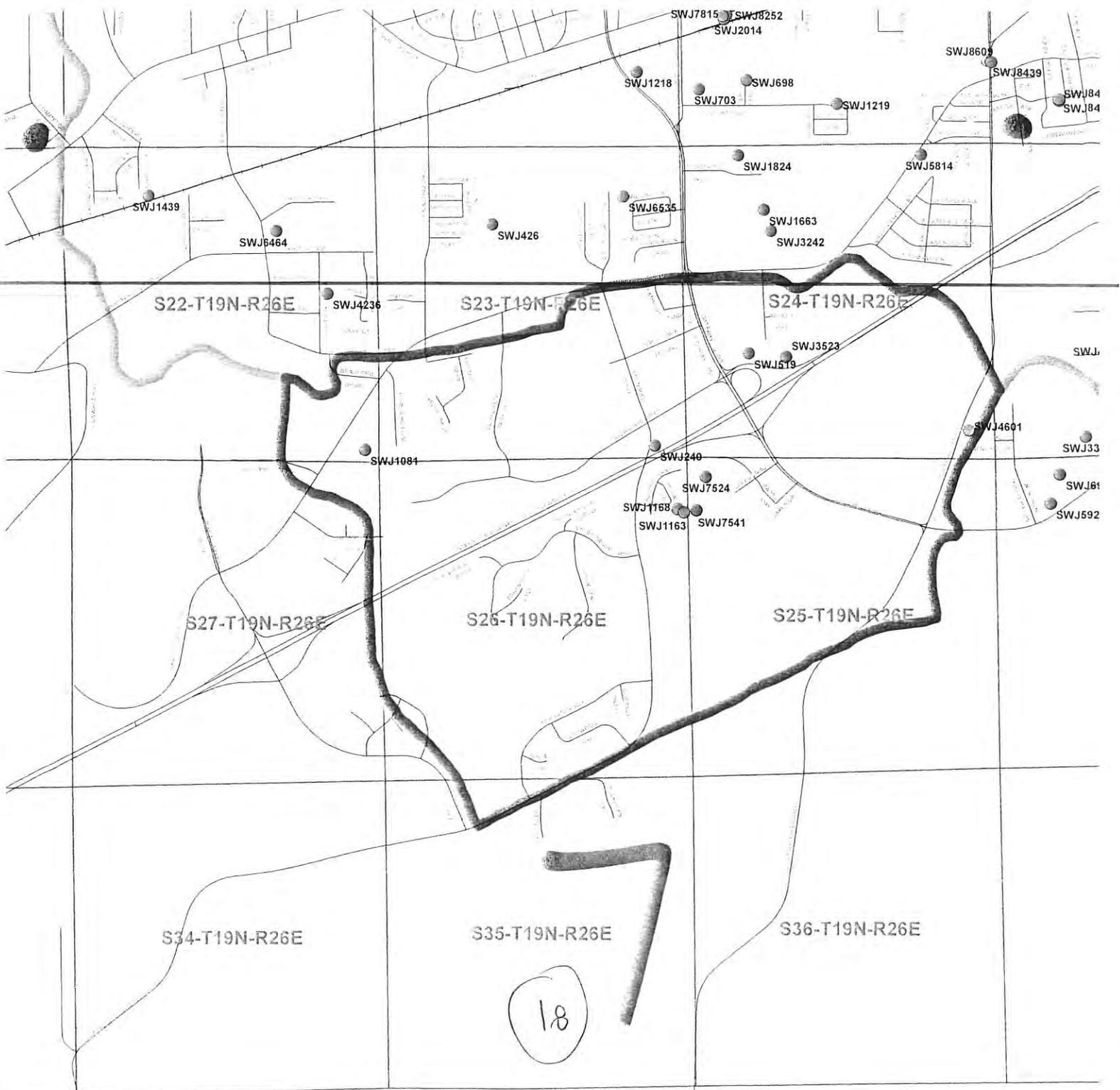
S31-T19N-R26E

S32-T19N-R26E

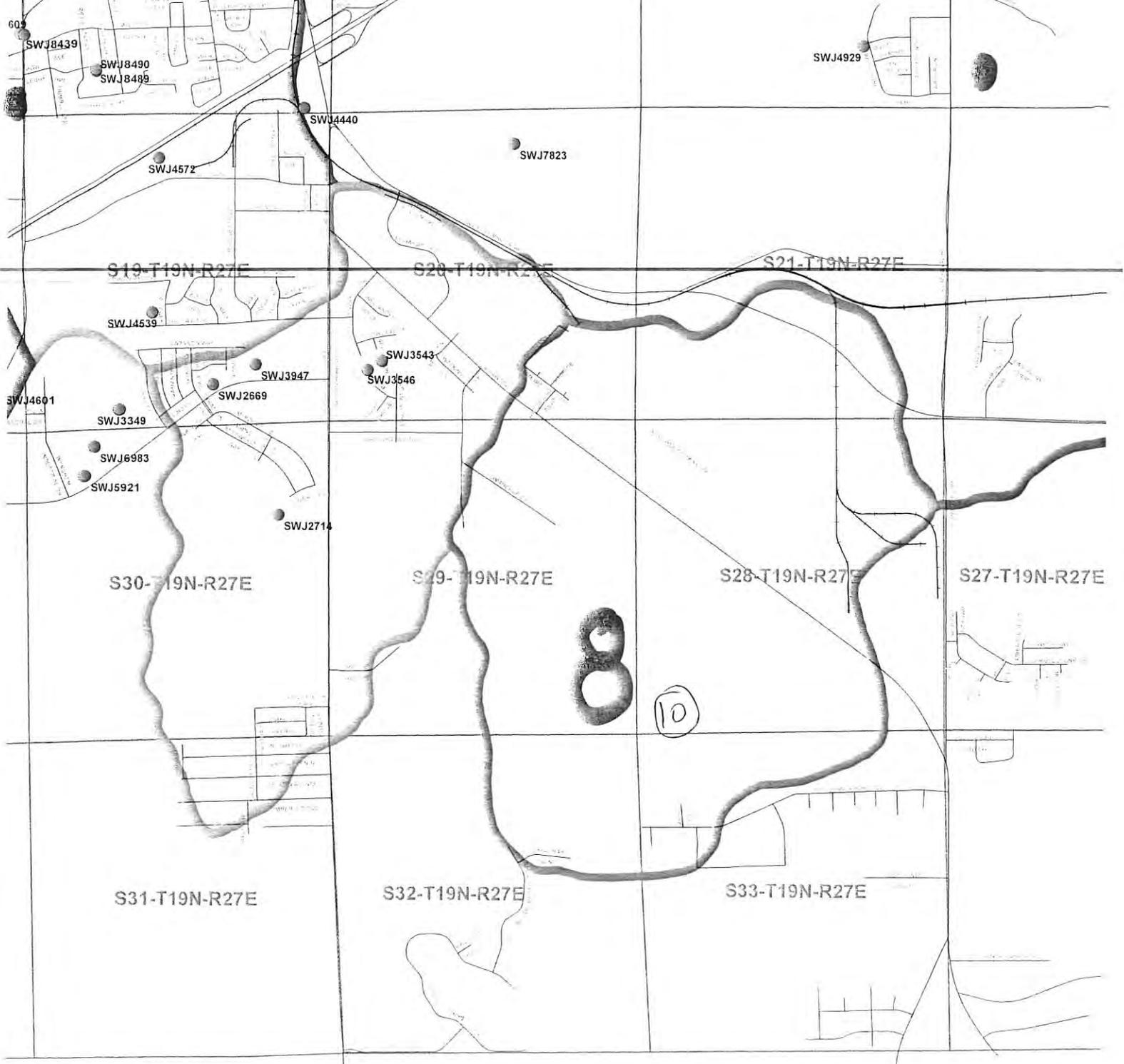
S33-T19N-R26E

6

0



18



S19-T19N-R27E

S20-T19N-R27E

S21-T19N-R27E

S30-T19N-R27E

S29-T19N-R27E

S28-T19N-R27E

S27-T19N-R27E

S31-T19N-R27E

S32-T19N-R27E

S33-T19N-R27E

10

603

SWJ8439

SWJ8490
SWJ8489

SWJ4929

SWJ4440

SWJ7823

SWJ4572

SWJ4639

SWJ3947

SWJ3543

SWJ3546

SWJ4601

SWJ3349

SWJ2669

SWJ6983

SWJ5921

SWJ2714

S30-T19N-R27E

S29-T19N-R27E

S28-T19N-R27E

S27-T19N-R27E

S31-T19N-R27E

S32-T19N-R27E

S33-T19N-R27E

10

S22-T19N-R27E

S23-T19N-R27E

S24-T19N-R27E

S27-T19N-R27E

SWJ7837

S26-T19N-R27E

S25-T19N-R27E

9 (1)

S34-T19N-R27E

S35-T19N-R27E

S36-T19N-R27E

OUTFALL ID	SIZE	DATE	SAMPLED	REMARKS/FINDINGS	ACTIONS
SWJ240	36	1/29/16	n	operational	none
SWJ426	48	2/4/16	n	operational/eroded base	none
SWJ443					
SWJ519	48	1/29/16	n	operational	none
SWJ624	18	2/8/16	n	operational	none
SWJ678					
SWJ698	24	2/1/16	n	operational	none
SWJ703	24	2/1/16	n	operational	none
SWJ753					
SWJ758					
SWJ784					
SWJ785					
SWJ787					
SWJ827					
SWJ851					
SWJ955					
SWJ1032					
SWJ1036					
SWJ1040					
SWJ1081	26	1/29/16	n	operational	none
SWJ1163	18e	1/29/16	n	silt/gravel	none
SWJ1168	36	1/29/16	n	operational	none corr plastic
SWJ1218	18	2/4/16	n	operational	none
SWJ1219	24x36	2/1/16	n	operational dry	none
SWJ1439	26x36	2/5/16	n	operational	none
SWJ1455	24x36	2/8/16	n	operational	silt fabric on intake. Should remove
SWJ1663	18	2/2/16	n	operational	none
SWJ1682	36	1/19/16	n	operational	none
SWJ1702					
SWJ1824	24x36	2/1/16	n	operational	none
SWJ2014	12	2/2/16	n	operational	none
SWJ2040	12	2/3/16	n	operational,relocated	none

SWI2175	14	2/1/16	n	operational	none
SWI2407					
SWI2434					
SWI2442					
SWI2455					
SWI2669					
SWI2714					
SWI2797	30	2/3/16	n	operational	none
SWI3242	18	2/4/16	n	operational	NONE
SWI3349					
SWI3478					
SWI3479					
SWI3495					
SWI3499					
SWI3523	36	1/29/16	n	operational	none
SWI3543					
SWI3546					
SWI3680					
SWI3697					
SWI3702					
SWI3947					
SWI4077					
SWI4236	18	2/5/16	n	operational	none
SWI4440					
SWI4539					
SWI4572					
SWI4601	12	1/29/16	n	operational dry	none WHITE PVC
SWI4929					
SWI5814					
SWI5885	24x36	2/8/16	n	operational	none
SWI5910					
SWI5921					
SWI6156	48	2/4/16	n	operational/inwater stream	
SWI6337					

SWJ16367						
SWJ16464	36	2/5/16	n	operational	none	/// INVERT not outvert
SWJ16535	18	2/4/16	N	OPERATIONAL	none	
SWJ16550						
SWJ16555						
SWJ16559						
SWJ16983						
SWJ17147	18	2/2/16	n	operational	none	
SWJ17149	24	2/2/16	n	operational	none	
SWJ17190						
SWJ17204						
SWJ17389						
SWJ17420	48	2/8/16	n	operational	none	
SWJ17421	36	2/8/16	n	operational	ORANGE STAINS WEEPING	
SWJ17437						
SWJ17524	60	1/29/16	n	operational	none	
SWJ17541	36	2/1/16	n	operational	none	
SWJ17582	18	2/18/16	n	operational;	none	
SWJ17711						
SWJ17756						
SWJ17815	12	2/4/16	n	operational	none	
SWJ17823						
SWJ17837						
SWJ17998						
SWJ18049						
SWJ18195	30	1/19/16	n	operational	none	
SWJ18252	12	2/4/16	n	operational	none	
SWJ18294						
SWJ18439	48x3	2/4/16	n	operational	none	
SWJ18489						
SWJ18490						
SWJ18571						
SWJ18572						
SWJ18609	48x3	2/4/16	n	operational w issues	none	

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET



Section 1: Background Data

Subwatershed:		Outfall ID: <u>2090</u>	
Today's date: <u>2 / 3 / 2016</u>		Time (Military): <u>2:00</u>	
Investigators: <u>JH</u>		Form completed by: <u>JH</u>	
Temperature (°F): <u>66</u>	Rainfall (in.): Last 24 hours: <u>0.5</u> Last 48 hours: _____		
Latitude: _____	Longitude: _____	GPS Unit: _____	GPS LMK #: _____
Camera: <input checked="" type="checkbox"/>	Photo #s: _____		
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial	<input type="checkbox"/> Open Space		
<input type="checkbox"/> Ultra-Urban Residential	<input type="checkbox"/> Institutional		
<input type="checkbox"/> Suburban Residential	Other: _____		
<input checked="" type="checkbox"/> Commercial	Known Industries: _____		
Notes (e.g., origin of outfall, if known): <u>Back well behind Auto zone; From O'Reilly's</u>			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input checked="" type="checkbox"/> Single <input type="checkbox"/> Elliptical <input type="checkbox"/> Double <input type="checkbox"/> Box <input type="checkbox"/> Triple <input checked="" type="checkbox"/> Other: _____	Diameter/Dimensions: <u>12"</u>	In Water: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)			
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

Section 3: Quantitative Characterization

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

2040



Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

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

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

NEEDS FOLLOW UP?? NO YES _____

22-16

Meadow Pk. Apts.

Ret pond

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET



Section 1: Background Data

Subwatershed: _____ Outfall ID: 426

Today's date: 2/4/2016 Time (Military): 4:00

Investigators: JH Form completed by: JH

Temperature (°F): 39 Rainfall (in.): Last 24 hours: 1.0 Last 48 hours: _____

Latitude: _____ Longitude: _____ GPS Unit: _____ GPS LMK #: _____

Camera: Photo #s:

Land Use in Drainage Area (Check all that apply):

Industrial Open Space

Ultra-Urban Residential Institutional

Suburban Residential Other: head wall - base; ending out

Commercial Known Industries: From under base

Notes (e.g., origin of outfall, if known): bottom of wall - this is a Ret pond

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input type="checkbox"/> Single <input type="checkbox"/> Elliptical <input type="checkbox"/> Double <input type="checkbox"/> Box <input type="checkbox"/> Triple <input checked="" type="checkbox"/> Other: _____	Diameter/Dimensions: <u>48</u>	In Water: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)			
Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description (if present)	<input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

Section 3: Quantitative Characterization

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



Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

1. Sample for the lab? Yes No
2. If yes, collected from: Flow Pool
3. Intermittent flow trap set? Yes No If Yes, type: OBM Caulk dam

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

NEEDS FOLLOW UP?? NO YES _____

22426

926

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET



Section 1: Background Data

1218

Subwatershed:		Outfall ID: <u>1218</u>	
Today's date: <u>2/9/2016</u>		Time (Military): <u>10:08</u>	
Investigators: <u>JH</u>		Form completed by: <u>JH</u>	
Temperature (°F): <u>47</u>	Rainfall (in.): Last 24 hours: <u>1.0</u> Last 48 hours: _____		
Latitude:	Longitude:	GPS Unit:	GPS LMK #:
Camera: <input checked="" type="checkbox"/>		Photo #: <input checked="" type="checkbox"/>	
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input type="checkbox"/> Ultra-Urban Residential		<input type="checkbox"/> Institutional	
<input type="checkbox"/> Suburban Residential		Other: _____	
<input checked="" type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known): <u>Behind RBT Bank</u>			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input checked="" type="checkbox"/> Closed Pipe	<input type="checkbox"/> RCP <input type="checkbox"/> CMP <input checked="" type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input type="checkbox"/> Single <input type="checkbox"/> Elliptical <input type="checkbox"/> Double <input type="checkbox"/> Box <input type="checkbox"/> Triple <input checked="" type="checkbox"/> Other: _____	Diameter/Dimensions: <u>18" PVC</u>	In Water: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)			
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		If No, Skip to Section 5	
Flow Description (if present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

Section 3: Quantitative Characterization

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



Outfall Reconnaissance Inventory Field Sheet

1218

Section 4: Physical Indicators for Flowing Outfalls Only

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

INDICATOR	CHECK IF PRESENT	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
			1 - Faint	2 - Easily detected	3 - Noticeable from a distance
Odor	<input type="checkbox"/>	<input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas <input type="checkbox"/> Sulfide <input type="checkbox"/> Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Color	<input type="checkbox"/>	<input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow <input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Turbidity	<input type="checkbox"/>	See severity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Floatables -Does Not include Trash!!	<input type="checkbox"/>	<input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

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

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

NEEDS FOLLOW UP?? NO YES _____

Handwritten signature and date: 2/17/18

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET



Section 1: Background Data

1663

Subwatershed:		Outfall ID:	
Today's date: 2/4/20 16		Time (Military): 9:55	
Investigators: JH		Form completed by: JH	
Temperature (°F): 46	Rainfall (in.): Last 24 hours: 1.0 Last 48 hours:		
Latitude:	Longitude:	GPS Unit:	GPS LMK #:
Camera:		Photo #s: ✓	
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input type="checkbox"/> Ultra-Urban Residential		<input type="checkbox"/> Institutional	
<input type="checkbox"/> Suburban Residential		Other: _____	
<input checked="" type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known): Ret outlet - government center DHR bldg			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input type="checkbox"/> Single <input type="checkbox"/> Elliptical <input type="checkbox"/> Double <input type="checkbox"/> Box <input type="checkbox"/> Triple <input checked="" type="checkbox"/> Other: _____	Diameter/Dimensions: <u>18"</u>	In Water: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)			
Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If No, Skip to Section 5		
Flow Description (If present)	<input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

Section 3: Quantitative Characterization

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

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Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

1. Sample for the lab? Yes No

2. If yes, collected from: Flow Pool

3. Intermittent flow trap set? Yes No

If Yes, type: OBM Caulk dam

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

NEEDS FOLLOW UP?? NO YES

2-4-16

Ret Pond
OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET



Section 1: Background Data

Subwatershed:		Outfall ID: 6535	
Today's date: 2/9/2016		Time (Military): 9:15	
Investigators: JH		Form completed by: JH	
Temperature (°F): 45	Rainfall (in.): Last 24 hours: 0.0 Last 48 hours:		
Latitude:	Longitude:	GPS Unit:	GPS LMK #:
Camera: <input checked="" type="checkbox"/>	Photo #s: 1		
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial <input type="checkbox"/> Ultra-Urban Residential <input type="checkbox"/> Suburban Residential <input checked="" type="checkbox"/> Commercial		<input type="checkbox"/> Open Space <input type="checkbox"/> Institutional Other: _____ Known Industries: _____	
Notes (e.g., origin of outfall, if known): <i>Behind special arrangement. Ret pond out Fall</i>			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED	
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Circular <input checked="" type="checkbox"/> Elliptical <input type="checkbox"/> Box <input checked="" type="checkbox"/> Other: _____	<input checked="" type="radio"/> Single <input type="radio"/> Double <input type="radio"/> Triple <input checked="" type="radio"/> Other: _____	Diameter/Dimensions: <div style="font-size: 2em; text-align: center;">18</div>	In Water: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____		
<input type="checkbox"/> In-Stream	(applicable when collecting samples)				
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>				
Flow Description (if present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial				

Section 3: Quantitative Characterization

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



Outfall Reconnaissance Inventory Field Sheet

6536

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

1. Sample for the lab? Yes No

2. If yes, collected from: Flow Pool

3. Intermittent flow trap set? Yes No If Yes, type: OBM Caulk dam

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

NEEDS FOLLOW UP?? NO YES

Jan 2, 2016

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET



Section 1: Background Data

Subwatershed:		Outfall ID: 1439	
Today's date: 2/5/2016		Time (Military): 10:25	
Investigators: JH		Form completed by: JH	
Temperature (°F): 45	Rainfall (in.): Last 24 hours: 0.5 Last 48 hours:		
Latitude:	Longitude:	GPS Unit:	GPS LMK #:
Camera:	Photo #s:		
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial	<input type="checkbox"/> Open Space		
<input type="checkbox"/> Ultra-Urban Residential	<input type="checkbox"/> Institutional		
<input checked="" type="checkbox"/> Suburban Residential	Other: _____		
<input type="checkbox"/> Commercial	Known Industries: _____		
Notes (e.g., origin of outfall, if known): Ret outlet - A			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Circular <input checked="" type="checkbox"/> Elliptical <input type="checkbox"/> Box <input checked="" type="checkbox"/> Other: _____	Diameter/Dimensions: 26 x 36	In Water: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)			
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description (if present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

Section 3: Quantitative Characterization

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



Outfall Reconnaissance Inventory Field Sheet

1439

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

- Sample for the lab? Yes No
- If yes, collected from: Flow Pool
- Intermittent flow trap set? Yes No If Yes, type: OBM Caulk dam

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

NEEDS FOLLOW UP?? NO YES

2-5-16

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET



Section 1: Background Data

Subwatershed: <u>106</u>		Outfall ID: <u>7582</u>	
Today's date: <u>2-18-16</u>		Time (Military): <u>12:15</u>	
Investigators: <u>Hung</u>		Form completed by: <u>Hunter</u>	
Temperature (°F): <u>48</u>	Rainfall (in.): Last 24 hours: <u>0</u> Last 48 hours: _____		
Latitude: _____	Longitude: _____	GPS Unit: _____	GPS LMK #: _____
Camera: <input checked="" type="checkbox"/>	Photo #s: _____		
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial	<input type="checkbox"/> Open Space		
<input type="checkbox"/> Ultra-Urban Residential	<input type="checkbox"/> Institutional		
<input type="checkbox"/> Suburban Residential	Other: _____		
<input checked="" type="checkbox"/> Commercial	Known Industries: _____		
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> PVC <input type="checkbox"/> Steel <input type="checkbox"/> Other: <u>plastic</u>	<input checked="" type="checkbox"/> Circular <input type="checkbox"/> Elliptical <input checked="" type="checkbox"/> Box <input type="checkbox"/> Other: _____	Diameter/Dimensions: _____ <u>18"</u>	In Water: <input checked="" type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input checked="" type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input checked="" type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input checked="" type="checkbox"/> Parabolic <input type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)			
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description (if present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial <u>N/A</u>			

Section 3: Quantitative Characterization

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



7502

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

1. Sample for the lab? Yes No

2. If yes, collected from: Flow Pool

3. Intermittent flow trap set? Yes No If Yes, type: OBM Caulk dam

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

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET



Section 1: Background Data

HWA 202 ✓

Subwatershed: <u>Morris Mill Creek</u>		Outfall ID: <u>SWJ 3523</u>	
Today's date: <u>11/29/2016</u>		Time (Military): <u>11:15</u>	
Investigators: <u>JH</u>		Form completed by: <u>JH</u>	
Temperature (°F):	Rainfall (in.): Last 24 hours: <u>0.5</u> Last 48 hours:		
Latitude:	Longitude:	GPS Unit:	GPS LMK #:
Camera: <input checked="" type="checkbox"/>	Photo #s: <input checked="" type="checkbox"/>		
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial	<input type="checkbox"/> Open Space	<p style="font-size: 2em; font-weight: bold;">36</p> <p style="font-size: 1.5em; font-weight: bold;">Black can plaster</p>	
<input type="checkbox"/> Ultra-Urban Residential	<input type="checkbox"/> Institutional		
<input type="checkbox"/> Suburban Residential	Other: _____		
<input checked="" type="checkbox"/> Commercial	Known Industries: _____		
Notes (e.g., origin of outfall, if known): <u>South side of Motel</u>			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED	
<input checked="" type="checkbox"/> Closed Pipe	<input type="checkbox"/> RCP <input type="checkbox"/> CMP <input checked="" type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input type="checkbox"/> Elliptical <input type="checkbox"/> Box <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Single <input type="checkbox"/> Double <input type="checkbox"/> Triple <input checked="" type="checkbox"/> Other: _____	Diameter/Dimensions: <u>PVC 36"</u> Depth: _____ Top Width: _____ Bottom Width: _____	In Water: <input type="checkbox"/> No <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____			
<input type="checkbox"/> In-Stream	(applicable when collecting samples)				
Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If No, Skip to Section 5			
Flow Description (if present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial				

Section 3: Quantitative Characterization

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

Outfall Reconnaissance Inventory Field Sheet



Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

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

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

NEEDS FOLLOW UP?? NO YES

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET



Section 1: Background Data

HVA 202 ✓

Subwatershed: <u>Moore's Mill creek</u>		Outfall ID: <u>SWJ 1081</u>	
Today's date: <u>1/29/2016</u>		Time (Military): <u>8:45</u>	
Investigators: <u>JH</u>		Form completed by: <u>JH</u>	
Temperature (°F): <u>43</u>	Rainfall (in.): Last 24 hours: <u>0.5</u> Last 48 hours: _____		
Latitude: _____	Longitude: _____	GPS Unit: _____	GPS LMK #: _____
Camera: <input checked="" type="checkbox"/>	Photo #s: <input checked="" type="checkbox"/>		
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input type="checkbox"/> Ultra-Urban Residential		<input type="checkbox"/> Institutional	
<input type="checkbox"/> Suburban Residential		Other: _____	
<input checked="" type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known): <u>behind play it open sports</u>			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED	
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input type="checkbox"/> Elliptical <input type="checkbox"/> Box <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Single <input type="checkbox"/> Double <input type="checkbox"/> Triple <input checked="" type="checkbox"/> Other: _____	Diameter/Dimensions: _____ <u>30</u> Depth: _____ Top Width: _____ Bottom Width: _____	In Water: <input checked="" type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____			
<input type="checkbox"/> In-Stream	(applicable when collecting samples)				
Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>				
Flow Description (if present)	<input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial				

Section 3: Quantitative Characterization

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

Outfall Reconnaissance Inventory Field Sheet



Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

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

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

NEEDS FOLLOW UP?? NO YES

1-29-16

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

outvent



Section 1: Background Data

HVA 202 1168

Subwatershed: <i>Moores Mill Creek</i>		Outfall ID: <i>SWJ 1163</i>	
Today's date: <i>1/29/2016</i>		Time (Military): <i>9:40</i>	
Investigators: <i>JH</i>		Form completed by: <i>JH</i>	
Temperature (°F): <i>30</i>	Rainfall (in.): Last 24 hours: <i>5</i> Last 48 hours: _____		
Latitude: _____	Longitude: _____	GPS Unit: _____	GPS LMK #: _____
Camera: <input checked="" type="checkbox"/>	Photo #s: <input checked="" type="checkbox"/>		
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input type="checkbox"/> Ultra-Urban Residential		<input type="checkbox"/> Institutional	
<input checked="" type="checkbox"/> Suburban Residential		Other: _____	
<input type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known): <i>36" plastic corr. has inverted end</i>			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED	
<input checked="" type="checkbox"/> Closed Pipe	<input type="checkbox"/> RCP <input type="checkbox"/> CMP <input checked="" type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Circular <input type="checkbox"/> Elliptical <input type="checkbox"/> Box <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Single <input type="checkbox"/> Double <input type="checkbox"/> Triple <input checked="" type="checkbox"/> Other: _____	Diameter/Dimensions: <i>36"</i> Depth: _____ Top Width: _____ Bottom Width: _____	In Water: <input checked="" type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input checked="" type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____		
<input type="checkbox"/> In-Stream	(applicable when collecting samples)				
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>				
Flow Description (if present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial				

Section 3: Quantitative Characterization

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

Outfall Reconnaissance Inventory Field Sheet



Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

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

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

NEEDS FOLLOW UP?? NO YES _____

Hamilton Falls

Benjamin Gold

~~SWP~~ *SWP out*

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET



Section 1: Background Data

HVA 202
1163
1163

Subwatershed: <i>Moores Mill Creek</i>		Outfall ID: <i>SWJ</i>	
Today's date: <i>1/29/2016</i>		Time (Military): <i>9:30</i>	
Investigators: <i>JH</i>		Form completed by: <i>JH</i>	
Temperature (°F): <i>50</i>	Rainfall (in.): Last 24 hours: <i>0.5</i> Last 48 hours: _____		
Latitude: _____	Longitude: _____	GPS Unit: _____	GPS LMK #: _____
Camera: <input checked="" type="checkbox"/>		Photo #s: <input checked="" type="checkbox"/>	
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial	<input type="checkbox"/> Open Space		
<input type="checkbox"/> Ultra-Urban Residential	<input type="checkbox"/> Institutional		
<input checked="" type="checkbox"/> Suburban Residential	Other: _____		
<input type="checkbox"/> Commercial	Known Industries: _____		
Notes (e.g., origin of outfall, if known): <i>outfall to put ponds @ Benjamin Gold</i>			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> RCP <input checked="" type="checkbox"/> PVC <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Circular <input checked="" type="checkbox"/> Elliptical <input type="checkbox"/> Box <input checked="" type="checkbox"/> Other: _____	Diameter/Dimensions: <i>36"</i> 	In Water: <input checked="" type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Fully
<input checked="" type="checkbox"/> Open drainage	<input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input checked="" type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: <i>0.2</i> Top Width: <i>12"</i> Bottom Width: <i>36"</i>	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)			
Flow Present?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	<input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

Section 3: Quantitative Characterization

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



Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

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

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

NEEDS FOLLOW UP?? NO YES

5 wet out
~~at inlet side~~
 Ham. Han Gable

Retention outlet - Lowe's

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET



Section 1: Background Data

HVA 202

Subwatershed: <u>Moore's Mill Creek</u>	Outfall ID: <u>SWJ 519</u>
Today's date: <u>1/29/2016</u>	Time (Military): <u>11:15</u>
Investigators: <u>JH</u>	Form completed by: <u>JH</u>
Temperature (°F): <u>55</u>	Rainfall (in.): Last 24 hours: <u>0.5</u> Last 48 hours: _____
Latitude: _____	Longitude: _____
Camera: <input checked="" type="checkbox"/>	GPS Unit: _____
	GPS LMK #: _____
	Photo #s: <input checked="" type="checkbox"/>
Land Use in Drainage Area (Check all that apply):	
<input type="checkbox"/> Industrial	<input type="checkbox"/> Open Space
<input type="checkbox"/> Ultra-Urban Residential	<input type="checkbox"/> Institutional
<input type="checkbox"/> Suburban Residential	Other: _____
<input checked="" type="checkbox"/> Commercial	Known Industries: _____
Notes (e.g., origin of outfall, if known): <u>outlet for home's pet</u> <u>48" zinc / tar coated - with head</u>	

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input type="checkbox"/> Single <input type="checkbox"/> Elliptical <input type="checkbox"/> Double <input type="checkbox"/> Box <input type="checkbox"/> Triple <input checked="" type="checkbox"/> Other: _____	Diameter/Dimensions: <u>48"</u>	In Water: <input type="checkbox"/> No <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)			
Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If No, Skip to Section 5		
Flow Description (If present)	<input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

Section 3: Quantitative Characterization

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

Outfall Reconnaissance Inventory Field Sheet



Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

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

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

NEEDS FOLLOW UP?? NO YES

O. A News

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET



HVA 202

Section 1: Background Data

Subwatershed: <u>Mosses Mill</u>		Outfall ID: <u>SW 3 4601</u>	
Today's date: <u>1 29 2016</u>		Time (Military): <u>12:3</u>	
Investigators: <u>JH</u>		Form completed by: <u>JH</u>	
Temperature (°F): <u>59</u>	Rainfall (in.): Last 24 hours: <input checked="" type="checkbox"/> Last 48 hours: <input type="checkbox"/>		
Latitude: _____	Longitude: _____	GPS Unit: _____	GPS LMK #: _____
Camera: <input checked="" type="checkbox"/>		Photo #: _____	
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input type="checkbox"/> Ultra-Urban Residential		<input type="checkbox"/> Institutional	
<input type="checkbox"/> Suburban Residential		Other: _____	
<input checked="" type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known): <u>white 12" PVC outfall; north side of O.A News N.E. corner</u>			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED	
<input checked="" type="checkbox"/> Closed Pipe	<input type="checkbox"/> RCP <input type="checkbox"/> CMP <input checked="" type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input type="checkbox"/> Elliptical <input type="checkbox"/> Box <input checked="" type="checkbox"/> Other: _____	<input checked="" type="radio"/> Single <input type="radio"/> Double <input type="radio"/> Triple <input checked="" type="radio"/> Other: _____	Diameter/Dimensions: <u>12"</u> Depth: _____ Top Width: _____ Bottom Width: _____	In Water: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____			
<input type="checkbox"/> In-Stream	(applicable when collecting samples)				
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>				
Flow Description (if present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial				

Section 3: Quantitative Characterization

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

Outfall Reconnaissance Inventory Field Sheet



Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

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

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

NEEDS FOLLOW UP?? NO YES

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET



Section 1: Background Data

HVA 202

Subwatershed: <u>Moore's Mill Creek</u>		Outfall ID: <u>SWJ 7524</u>	
Today's date: <u>1/29/2016</u>		Time (Military): <u>10:45</u>	
Investigators: <u>JH</u>		Form completed by: <u>JH</u>	
Temperature (°F): <u>54</u>	Rainfall (in.): Last 24 hours: <u>0.5</u>	Last 48 hours: _____	
Latitude: _____	Longitude: _____	GPS Unit: _____	GPS LMK #: _____
Camera: <input checked="" type="checkbox"/>	Photo #s: <input checked="" type="checkbox"/>		
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial	<input type="checkbox"/> Open Space		
<input type="checkbox"/> Ultra-Urban Residential	<input type="checkbox"/> Institutional		
<input type="checkbox"/> Suburban Residential	Other: _____		
<input checked="" type="checkbox"/> Commercial	Known Industries: _____		
Notes (e.g., origin of outfall, if known): <u>60" out Fall at Tiger 13 concrete detention out</u>			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED	
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input type="checkbox"/> Elliptical <input type="checkbox"/> Box <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Single <input type="checkbox"/> Double <input type="checkbox"/> Triple <input checked="" type="checkbox"/> Other: _____	Diameter/Dimensions: <u>60"</u> Depth: _____ Top Width: _____ Bottom Width: _____	In Water: <input type="checkbox"/> No <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____			
<input type="checkbox"/> In-Stream	(applicable when collecting samples)				
Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If No, Skip to Section 5			
Flow Description (if present)	<input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial				

Section 3: Quantitative Characterization

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

Outfall Reconnaissance Inventory Field Sheet



Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

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

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

NEEDS FOLLOW UP?? NO YES

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET



Section 1: Background Data

Subwatershed: <u>107</u>		Outfall ID: <u>SWJ 1692</u>	
Today's date: <u>1/19/2016</u>		Time (Military): <u>2:30 P</u>	
Investigators: <u>J. Haws</u>		Form completed by: <u>JH</u>	
Temperature (°F): <u>45</u>	Rainfall (in.): Last 24 hours: _____	Last 48 hours: <u>0</u>	
Latitude: _____	Longitude: _____	GPS Unit: _____	GPS LMK #: _____
Camera: <input checked="" type="checkbox"/>		Photo #s: _____	
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input type="checkbox"/> Ultra-Urban Residential		<input type="checkbox"/> Institutional	
<input type="checkbox"/> Suburban Residential		Other: <u>Pharmative</u>	
<input checked="" type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known): _____			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED	
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Circular <input checked="" type="checkbox"/> Elliptical <input type="checkbox"/> Box <input checked="" type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Single <input type="checkbox"/> Double <input type="checkbox"/> Triple <input checked="" type="checkbox"/> Other: _____	Diameter/Dimensions: <u>36 slope</u> Depth: _____ Top Width: _____ Bottom Width: _____	In Water: <input type="checkbox"/> No <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input checked="" type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____		
<input type="checkbox"/> In-Stream	(applicable when collecting samples) <u>No</u>				
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>				
Flow Description (If present)	<input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial				

Section 3: Quantitative Characterization

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

SWJ 1682



Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	<input type="checkbox"/>	<input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint <input type="checkbox"/> Corrosion	N/A
Deposits/Stains	<input type="checkbox"/>	<input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:	N/A
Abnormal Vegetation	<input type="checkbox"/>	<input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited	N/A
Poor pool quality	<input type="checkbox"/>	<input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen <input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other:	No
Pipe benthic growth	<input type="checkbox"/>	<input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:	No

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

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

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

NEEDS FOLLOW UP?? NO YES _____

good stability - Below permeative

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET



Section 1: Background Data

Subwatershed: <u>107</u>		Outfall ID: <u>8195</u>	
Today's date: <u>1/19/20</u>		Time (Military): <u>2:50</u>	
Investigators: <u>JH</u>		Form completed by: <u>JH</u>	
Temperature (°F): <u>46</u>	Rainfall (in.): Last 24 hours: _____ Last 48 hours: <u>0</u>		
Latitude: _____	Longitude: _____	GPS Unit: _____	GPS LMK #: _____
Camera: <input checked="" type="checkbox"/>	Photo #s: _____		
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial	<input type="checkbox"/> Open Space		
<input type="checkbox"/> Ultra-Urban Residential	<input type="checkbox"/> Institutional		
<input type="checkbox"/> Suburban Residential	Other: _____		
<input checked="" type="checkbox"/> Commercial	Known Industries: <u>Pharmaceutical</u>		
Notes (e.g., origin of outfall, if known): _____			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Circular <input checked="" type="checkbox"/> Elliptical <input type="checkbox"/> Box <input checked="" type="checkbox"/> Other: _____	<input checked="" type="radio"/> Single <input type="radio"/> Double <input type="radio"/> Triple <input checked="" type="radio"/> Other: _____	Diameter/Dimensions: <u>30</u> In Water: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)			
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description (if present)	<input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

Section 3: Quantitative Characterization

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

SWJ 8195



Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

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

INDICATOR	CHECK IF Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
			1 - Faint	2 - Easily detected	3 - Noticeable from a distance
Odor <i>N</i>	<input type="checkbox"/>	<input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas <input type="checkbox"/> Sulfide <input type="checkbox"/> Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Color <i>N</i>	<input type="checkbox"/>	<input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow <input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Turbidity <i>N</i>	<input type="checkbox"/>	See severity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Floatables -Does Not Include Trash!! <i>N</i>	<input type="checkbox"/>	<input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

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

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

NEEDS FOLLOW UP?? NO YES _____

out fall to detention behind
pharmatune

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET



Section 1: Background Data

Subwatershed: <u>102</u>		Outfall ID: <u>698</u>	
Today's date: <u>2/1/20 16</u>		Time (Military): <u>2:35</u>	
Investigators: <u>JH</u>		Form completed by: <u>JH</u>	
Temperature (°F): <u>66</u>	Rainfall (in.): Last 24 hours: <u>2.5</u>	Last 48 hours: _____	
Latitude: _____	Longitude: _____	GPS Unit: _____	GPS LMK #: _____
Camera: <u>✓</u>		Photo #: _____	
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input type="checkbox"/> Ultra-Urban Residential		<input type="checkbox"/> Institutional	
<input checked="" type="checkbox"/> Suburban Residential		Other: _____	
<input type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known): <u>No end of century lane.</u>			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input checked="" type="checkbox"/> Single <input type="checkbox"/> Elliptical <input type="checkbox"/> Double <input type="checkbox"/> Box <input type="checkbox"/> Triple <input checked="" type="checkbox"/> Other: _____	Diameter/Dimensions: <u>24"</u>	In Water: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)			
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		If No, Skip to Section 5	
Flow Description (if present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

Section 3: Quantitative Characterization

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

Outfall Reconnaissance Inventory Field Sheet



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Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

Are Physical Indicators that are not related to flow present? Yes No *(If No, Skip to Section 6)*

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

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

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

NEEDS FOLLOW UP?? NO YES

2-1-16

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

5137 ✓


Section 1: Background Data

Subwatershed: <u>102</u>		Outfall ID: <u>703</u>	
Today's date: <u>2/1/2016</u>		Time (Military): <u>2:30</u> <u>2:21</u>	
Investigators: <u>JH</u>		Form completed by: <u>JH</u>	
Temperature (°F): <u>66</u>	Rainfall (in.): Last 24 hours: <u>✓</u> Last 48 hours: _____		
Latitude: _____	Longitude: _____	GPS Unit: _____	GPS LMK #: _____
Camera: <input checked="" type="checkbox"/>	Photo #: <input checked="" type="checkbox"/>		
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input type="checkbox"/> Ultra-Urban Residential		<input type="checkbox"/> Institutional	
<input checked="" type="checkbox"/> Suburban Residential		Other: _____	
<input type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known): <u>on chest row country</u>			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input checked="" type="checkbox"/> Single <input type="checkbox"/> Elliptical <input type="checkbox"/> Double <input type="checkbox"/> Box <input type="checkbox"/> Triple <input checked="" type="checkbox"/> Other: _____	Diameter/Dimensions: <u>24 in</u>	In Water: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)			
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		If No, Skip to Section 5	
Flow Description (if present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

Section 3: Quantitative Characterization

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

Outfall Reconnaissance Inventory Field Sheet



Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

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

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

NEEDS FOLLOW UP?? NO YES _____

Well covered for 2-1-16

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

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Section 1: Background Data

Subwatershed: 102		Outfall ID: 12/19	
Today's date: 2/1/20 16:51		Time (Military): 2:40	
Investigators: Jit		Form completed by: Jit	
Temperature (°F): 66	Rainfall (in.): Last 24 hours: 0.5 Last 48 hours:		
Latitude:	Longitude:	GPS Unit:	GPS LMK #:
Camera:	Photo #s:		
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input type="checkbox"/> Ultra-Urban Residential		<input type="checkbox"/> Institutional	
<input checked="" type="checkbox"/> Suburban Residential		Other: _____	
<input type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known): removal from Rd str. This is outfall			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED	
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input checked="" type="checkbox"/> Elliptical <input type="checkbox"/> Box <input checked="" type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Single <input type="checkbox"/> Double <input type="checkbox"/> Triple <input checked="" type="checkbox"/> Other: _____	Diameter/Dimensions: <div style="text-align: center; font-size: 2em;">24 /</div> <div style="text-align: center; font-size: 2em;">36</div>	In Water: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____		
<input type="checkbox"/> In-Stream	(applicable when collecting samples)				
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>				
Flow Description (if present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial				

Section 3: Quantitative Characterization

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

Outfall Reconnaissance Inventory Field Sheet



Section 4: Physical Indicators for Flowing Outfalls Only (If No, Skip to Section 5)

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

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

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?
 NEEDS FOLLOW UP?? NO YES

2-1-16

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET



Section 1: Background Data

Subwatershed:		Outfall ID: <u>1824</u>	
Today's date: <u>2/1/20 16</u>		Time (Military): <u>12:00</u>	
Investigators: <u>JH</u>		Form completed by: <u>JH</u>	
Temperature (°F): <u>62</u>	Rainfall (in.): Last 24 hours:	Last 48 hours:	
Latitude:	Longitude:	GPS Unit:	GPS LMK #:
Camera: <input checked="" type="checkbox"/>	Photo #s: <input checked="" type="checkbox"/>		
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input type="checkbox"/> Ultra-Urban Residential		<input type="checkbox"/> Institutional	
<input type="checkbox"/> Suburban Residential		Other: _____	
<input checked="" type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Circular <input checked="" type="checkbox"/> Elliptical <input type="checkbox"/> Box <input checked="" type="checkbox"/> Other: _____	<input checked="" type="radio"/> Single <input type="radio"/> Double <input type="radio"/> Triple <input checked="" type="radio"/> Other: _____	Diameter/Dimensions: <u>24" W</u> In Water: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)			
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description (if present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

Section 3: Quantitative Characterization

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

1824

Outfall Reconnaissance Inventory Field Sheet



Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

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

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

NEEDS FOLLOW UP?? NO YES

2-1-16

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET



Section 1: Background Data

Subwatershed:		Outfall ID: <u>2175</u>	
Today's date: <u>2/15/2016</u>		Time (Military): <u>11:45</u>	
Investigators: <u>JH</u>		Form completed by: <u>JH</u>	
Temperature (°F): <u>63</u>	Rainfall (in.): Last 24 hours: <u>0.5</u> Last 48 hours: _____		
Latitude: _____	Longitude: _____	GPS Unit: _____	GPS LMK #: _____
Camera: <input checked="" type="checkbox"/>	Photo #s: <input checked="" type="checkbox"/>		
Land Use in Drainage Area (Check all that apply):			
<input checked="" type="checkbox"/> Industrial	<input type="checkbox"/> Open Space		
<input type="checkbox"/> Ultra-Urban Residential	<input type="checkbox"/> Institutional		
<input type="checkbox"/> Suburban Residential	Other: _____		
<input type="checkbox"/> Commercial	Known Industries: _____		
Notes (e.g., origin of outfall, if known): <u>across from Pharmatave 14" Pit outlet</u>			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Circular <input checked="" type="radio"/> Single <input type="checkbox"/> Elliptical <input type="radio"/> Double <input type="checkbox"/> Box <input type="radio"/> Triple <input checked="" type="checkbox"/> Other: _____	Diameter/Dimensions: <u>14"</u>	In Water: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	<i>(applicable when collecting samples)</i>			
Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description (if present)	<input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

Section 3: Quantitative Characterization

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

2175



Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

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

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

NEEDS FOLLOW UP?? NO YES _____

[Signature] 2-1-16

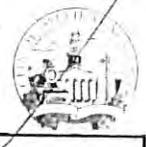
[Signature]

5147

7149

10:57

JH



OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

Section 1: Background Data

Subwatershed:		Outfall ID: 7149	
Today's date: 2/2/2016		Time (Military): 10:57	
Investigators: JH		Form completed by: JH	
Temperature (°F): 68	Rainfall (in.): Last 24 hours: 0		Last 48 hours:
Latitude:	Longitude:	GPS Unit:	GPS LMK #:
Camera: <input checked="" type="checkbox"/>	Photo #s: <input checked="" type="checkbox"/>		
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input type="checkbox"/> Ultra-Urban Residential		<input type="checkbox"/> Institutional	
<input checked="" type="checkbox"/> Suburban Residential		Other: _____	
<input type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known): outfall of Ret pond. East side of Arbon springs			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED	
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Circular <input checked="" type="checkbox"/> Elliptical <input type="checkbox"/> Box <input checked="" type="checkbox"/> Other: _____	<input checked="" type="radio"/> Single <input type="radio"/> Double <input type="radio"/> Triple <input checked="" type="radio"/> Other: _____	Diameter/Dimensions: <div style="font-size: 2em; text-align: center;">24"</div>	In Water: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____		
<input type="checkbox"/> In-Stream	(applicable when collecting samples)				
Flow Present?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>				
Flow Description (If present)	<input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial				

Section 3: Quantitative Characterization

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

Outfall Reconnaissance Inventory Field Sheet



Section 4: Physical Indicators for Flowing Outfalls Only

(If No, Skip to Section 5)

Are Any Physical Indicators Present in the flow? Yes No

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

1. Sample for the lab? Yes No

2. If yes, collected from: Flow Pool

3. Intermittent flow trap set? Yes No

If Yes, type: OBM Caulk dam

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

NEEDS FOLLOW UP?? NO YES

22-10

149

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET



Section 1: Background Data

5146

7147

10:55

JH

JH

Subwatershed: _____ Outfall ID: _____

Today's date: 2/2/2016 Time (Military): _____

Investigators: _____ Form completed by: _____

Temperature (°F): 67 Rainfall (in.): Last 24 hours: 0 Last 48 hours: _____

Latitude: _____ Longitude: _____ GPS Unit: _____ GPS LMK #: _____

Camera: Photo #:

Land Use in Drainage Area (Check all that apply):

Industrial Open Space

Ultra-Urban Residential Institutional

Suburban Residential Other: _____

Commercial Known Industries: _____

Notes (e.g., origin of outfall, if known): East side of Arbor Springs Reverb inlet to Pit

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED	
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Circular <input checked="" type="checkbox"/> Elliptical <input type="checkbox"/> Box <input checked="" type="checkbox"/> Other: _____	<input checked="" type="radio"/> Single <input type="radio"/> Double <input type="radio"/> Triple <input checked="" type="radio"/> Other: _____	Diameter/Dimensions: 18" Depth: _____ Top Width: _____ Bottom Width: _____	In Water: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____			
<input type="checkbox"/> In-Stream	(applicable when collecting samples)				
Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, Skip to Section 5				
Flow Description (if present)	<input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial				

Section 3: Quantitative Characterization

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

Outfall Reconnaissance Inventory Field Sheet



Section 4: Physical Indicators for Flowing Outfalls Only (If No, Skip to Section 5)

Are Any Physical Indicators Present in the flow? Yes No

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

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

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

NEEDS FOLLOW UP?? NO YES

22-16

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

5145



Section 1: Background Data

Subwatershed:		Outfall ID: 2797	
Today's date: 2/2/16		Time (Military): 10:30 A	
Investigators: JH		Form completed by: JH	
Temperature (°F): 64	Rainfall (in.): Last 24 hours: 0 Last 48 hours:		
Latitude:	Longitude:	GPS Unit:	GPS LMK #:
Camera: <input checked="" type="checkbox"/>		Photo #: <input checked="" type="checkbox"/>	
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input checked="" type="checkbox"/> Ultra-Urban Residential		<input type="checkbox"/> Institutional	
<input type="checkbox"/> Suburban Residential		Other: _____	
<input type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known): cut Fall to Hosp detention 60" pipe under road behind OTRC - not detent use			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input type="checkbox"/> Single <input type="checkbox"/> Elliptical <input type="checkbox"/> Double <input type="checkbox"/> Box <input type="checkbox"/> Triple <input checked="" type="checkbox"/> Other: _____	Diameter/Dimensions: 30"	In Water: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)			
Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	<input type="checkbox"/> Trickle <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

Section 3: Quantitative Characterization

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

2797



Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

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

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

NEEDS FOLLOW UP?? NO YES

[Signature]
2-2-16

5135



OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

Section 1: Background Data

Subwatershed: <u>Moans Mill</u>		Outfall ID: <u>7541</u>	
Today's date: <u>2-1-20</u>		Time (Military): <u>11:30</u>	
Investigators: <u>JH</u>		Form completed by: <u>JH</u>	
Temperature (°F): <u>64</u>	Rainfall (in.): Last 24 hours: <u>.5</u> Last 48 hours: _____		
Latitude: _____	Longitude: _____	GPS Unit: _____	GPS LMK #: _____
Camera: <input checked="" type="checkbox"/>	Photo #s: <input checked="" type="checkbox"/>		
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input type="checkbox"/> Ultra-Urban Residential		<input type="checkbox"/> Institutional	
<input type="checkbox"/> Suburban Residential		Other: _____	
<input checked="" type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known): <u>Behind 13 photos, south retention outlet</u>			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input checked="" type="checkbox"/> Single <input type="checkbox"/> Elliptical <input type="checkbox"/> Double <input type="checkbox"/> Box <input type="checkbox"/> Triple <input checked="" type="checkbox"/> Other: _____	Diameter/Dimensions: <u>36"</u>	In Water: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)			
Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	<input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

Section 3: Quantitative Characterization

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

7541



Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

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

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

NEEDS FOLLOW UP?? NO YES _____

[Signature] 2-1-16

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET



Section 1: Background Data

Subwatershed:		Outfall ID: 2014	
Today's date: 2/9/2016		Time (Military): 10:23	
Investigators: JH		Form completed by: JH	
Temperature (°F): 47	Rainfall (in.): Last 24 hours: 0.0 Last 48 hours:		
Latitude:	Longitude:	GPS Unit:	GPS LMK #:
Camera: /		Photo #s: /	
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input type="checkbox"/> Ultra-Urban Residential		<input type="checkbox"/> Institutional	
<input type="checkbox"/> Suburban Residential		Other: _____	
<input checked="" type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known): out fall into Ret			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input checked="" type="checkbox"/> Closed Pipe	<input type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input checked="" type="checkbox"/> Single <input type="checkbox"/> Elliptical <input type="checkbox"/> Double <input type="checkbox"/> Box <input type="checkbox"/> Triple <input checked="" type="checkbox"/> Other: _____	Diameter/Dimensions: 12"	In Water: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)			
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description (if present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

Section 3: Quantitative Characterization

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

Outfall/Reconnaissance Inventory Field Sheet

2014



Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

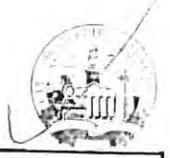
1. Sample for the lab?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
2. If yes, collected from:	<input type="checkbox"/> Flow	<input type="checkbox"/> Pool
3. Intermittent flow trap set?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
If Yes, type:		<input type="checkbox"/>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

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

NEEDS FOLLOW UP?? NO YES

2-11-16

Ret Pond



OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

Section 1: Background Data

3242

Subwatershed:		Outfall ID: 3242	
Today's date: 2/4/2016		Time (Military): 9:45	
Investigators: JH		Form completed by: JH	
Temperature (°F): 48	Rainfall (in.):	last 24 hours:	Last 48 hours:
Latitude:	Longitude:	GPS Unit:	GPS LMK #:
Camera: <input checked="" type="checkbox"/>	Photo #: <input checked="" type="checkbox"/>		
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input type="checkbox"/> Ultra-Urban Residential		<input type="checkbox"/> Institutional	
<input type="checkbox"/> Suburban Residential		Other: _____	
<input checked="" type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known): Behind, or at N end of Mexican Rest parking lot, Ret Pond			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input type="checkbox"/> Single <input type="checkbox"/> Elliptical <input type="checkbox"/> Double <input type="checkbox"/> Box <input type="checkbox"/> Triple <input checked="" type="checkbox"/> Other: _____	Diameter/Dimensions: <div style="text-align: center; font-size: 2em;">18"</div>	In Water: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)			
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description (if present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

Section 3: Quantitative Characterization

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

Outfall Reconnaissance Inventory Field Sheet



3242

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

1. Sample for the lab? Yes No

2. If yes, collected from: Flow Pool

3. Intermittent flow trap set? Yes No If Yes, type: OBM Caulk dam

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

NEEDS FOLLOW UP?? NO YES

2-1-16

Tiger town Ret-out Fall

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET



Section 1: Background Data

HVA 202 ✓

Subwatershed: <u>Moares Mill Creek</u>		Outfall ID: <u>SWJ 240</u>	
Today's date: <u>1/29/2016</u>		Time (Military): <u>11:30</u>	
Investigators: <u>JH</u>		Form completed by: <u>JH</u>	
Temperature (°F): <u>55</u>	Rainfall (in.): Last 24 hours: <u>0.5</u> Last 48 hours: _____		
Latitude: _____	Longitude: _____	GPS Unit: _____	GPS LMK #: _____
Camera: _____		Photo #: _____	
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input type="checkbox"/> Ultra-Urban Residential		<input type="checkbox"/> Institutional	
<input type="checkbox"/> Suburban Residential		Other: _____	
<input checked="" type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known): <u>on west side of Ham Han overpass 36" head wall outlet for Ret pond</u>			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED	
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Circular <input type="checkbox"/> Elliptical <input type="checkbox"/> Box <input checked="" type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Single <input type="checkbox"/> Double <input type="checkbox"/> Triple <input checked="" type="checkbox"/> Other: _____	Diameter/Dimensions: <u>36" headwall</u> Depth: _____ Top Width: _____ Bottom Width: _____	In Water: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____		
<input type="checkbox"/> In-Stream	(applicable when collecting samples)				
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>				
Flow Description (If present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial				

Section 3: Quantitative Characterization

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

Outfall Reconnaissance Inventory Field Sheet



Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

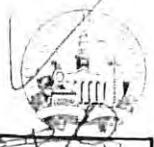
1. Sample for the lab?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
2. If yes, collected from:	<input type="checkbox"/> Flow	<input type="checkbox"/> Pool	
3. Intermittent flow trap set?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If Yes, type: <input type="checkbox"/>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

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

NEEDS FOLLOW UP?? NO YES

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5885

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET



Section 1: Background Data

Subwatershed:		Outfall ID:	
Today's date: 2/8/20		Time (Military): 2:20	
Investigators: JH		Form completed by: JH	
Temperature (°F): 52	Rainfall (in.): Last 24 hours: 0 Last 48 hours:		
Latitude:	Longitude:	GPS Unit:	GPS LMK #:
Camera: /	Photo #s: /		
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial	<input type="checkbox"/> Open Space		
<input type="checkbox"/> Ultra-Urban Residential	<input type="checkbox"/> Institutional		
<input checked="" type="checkbox"/> Suburban Residential	Other: _____		
<input type="checkbox"/> Commercial	Known Industries: _____		
Notes (e.g., origin of outfall, if known): Behind 308 Autumn Way - down hill			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED	
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Circular <input checked="" type="checkbox"/> Elliptical <input type="checkbox"/> Box <input checked="" type="checkbox"/> Other: _____	<input checked="" type="radio"/> Single <input type="radio"/> Double <input type="radio"/> Triple <input checked="" type="radio"/> Other: _____	Diameter/Dimensions: 24" x 36"	In Water: <input checked="" type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____		
<input type="checkbox"/> In-Stream	(applicable when collecting samples)				
Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>				
Flow Description (if present)	<input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial				

Section 3: Quantitative Characterization

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

Outfall Reconnaissance Inventory Field Sheet

5885



Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

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

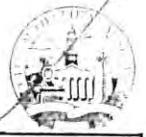
If Yes, type: OBM Caulk dam

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

NEEDS FOLLOW UP?? NO YES

P-2-8-16

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET



Section 1: Background Data

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1455

Subwatershed:		Outfall ID:	
Today's date: 2/13/20		Time (Military): 10:30	
Investigators: JH		Form completed by: JH	
Temperature (°F): 46	Rainfall (in.): Last 24 hours: <input type="checkbox"/> Last 48 hours: <input type="checkbox"/>		
Latitude:	Longitude:	GPS Unit:	GPS LMK #:
Camera: <input checked="" type="checkbox"/>	Photo #s: <input checked="" type="checkbox"/>		
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial	<input type="checkbox"/> Open Space		
<input type="checkbox"/> Ultra-Urban Residential	<input type="checkbox"/> Institutional		
<input checked="" type="checkbox"/> Suburban Residential	Other: _____		
<input type="checkbox"/> Commercial	Known Industries: _____		
Notes (e.g., origin of outfall, if known): Behind 3928 Eagle Ridge Ln Ret pond			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED	
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Circular <input checked="" type="checkbox"/> Elliptical <input type="checkbox"/> Box <input checked="" type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Single <input type="checkbox"/> Double <input type="checkbox"/> Triple <input checked="" type="checkbox"/> Other: _____	Diameter/Dimensions: 24x36 Depth: _____ Top Width: _____ Bottom Width: _____	In Water: <input type="checkbox"/> No <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____		
<input type="checkbox"/> In-Stream	(applicable when collecting samples)				
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>				
Flow Description (if present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial				

Section 3: Quantitative Characterization

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

Outfall Reconnaissance Inventory Field Sheet



Section 4: Physical Indicators for Flowing Outfalls Only

(If No, Skip to Section 5)

1455

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

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

If Yes, type: OBM Caulk dam

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

NEEDS FOLLOW UP?? NO YES

[Handwritten signature]

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

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Section 1: Background Data

7421

Subwatershed:		Outfall ID: 7421	
Today's date: 2/8/20 16		Time (Military): 12:30	
Investigators: DIF		Form completed by: JH	
Temperature (°F): 52	Rainfall (in.): Last 24 hours: 0 Last 48 hours:		
Latitude:	Longitude:	GPS Unit:	GPS LMK #:
Camera: <input checked="" type="checkbox"/>		Photo #s: <input checked="" type="checkbox"/>	
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input type="checkbox"/> Ultra-Urban Residential		<input type="checkbox"/> Institutional	
<input type="checkbox"/> Suburban Residential		Other: _____	
<input checked="" type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known): Behind Tractor Supply			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input checked="" type="checkbox"/> Single <input type="checkbox"/> Elliptical <input checked="" type="checkbox"/> Double <input type="checkbox"/> Box <input type="checkbox"/> Triple <input checked="" type="checkbox"/> Other: _____	Diameter/Dimensions: 36	In Water: <input checked="" type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)			
Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	<input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial orange iron			

Section 3: Quantitative Characterization

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

Outfall Reconnaissance Inventory Field Sheet



7421

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

1. Sample for the lab? Yes No

2. If yes, collected from: Flow Pool

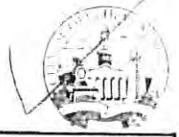
3. Intermittent flow trap set? Yes No

If Yes, type: OBM Caulk dam

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?
 NEEDS FOLLOW UP?? NO YES

Handwritten signature/initials

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET



Section 1: Background Data

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7420

Subwatershed:		Outfall ID: <u>7420</u>	
Today's date: <u>2/8/2016</u>		Time (Military): <u>12:20</u>	
Investigators: <u>JH</u>		Form completed by: <u>JH</u>	
Temperature (°F): <u>52</u>	Rainfall (in.): Last 24 hours: <u>0</u> Last 48 hours: _____		
Latitude: _____	Longitude: _____	GPS Unit: _____	GPS LMK #: _____
Camera: <input checked="" type="checkbox"/>	Photo #: <input checked="" type="checkbox"/>		
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial	<input type="checkbox"/> Open Space		
<input type="checkbox"/> Ultra-Urban Residential	<input type="checkbox"/> Institutional		
<input type="checkbox"/> Suburban Residential	Other: _____		
<input checked="" type="checkbox"/> Commercial	Known Industries: _____		
Notes (e.g., origin of outfall, if known): <u>Behind motor 6 Retention outlet</u>			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input type="checkbox"/> Single <input type="checkbox"/> Elliptical <input checked="" type="checkbox"/> Double <input type="checkbox"/> Box <input type="checkbox"/> Triple <input checked="" type="checkbox"/> Other: _____	Diameter/Dimensions: <u>48"</u>	In Water: <input checked="" type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)			
Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If No, Skip to Section 5		
Flow Description (if present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

Section 3: Quantitative Characterization

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

Outfall Reconnaissance Inventory Field Sheet

7420



Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

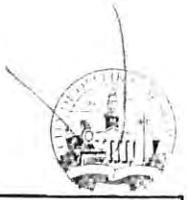
Section 7: Data Collection

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

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?
 NEEDS FOLLOW UP?? NO YES

2-9-16

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET



193 = 1804

Section 1: Background Data

Subwatershed:		Outfall ID: 180 624	
Today's date: 2.8.20 16		Time (Military): 10:50	
Investigators: JH		Form completed by: JH	
Temperature (°F): 48	Rainfall (in.): Last 24 hours: 0 Last 48 hours:		
Latitude:	Longitude:	GPS Unit:	GPS LMK #:
Camera: —		Photo #: —	
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input type="checkbox"/> Ultra-Urban Residential		<input type="checkbox"/> Institutional	
<input type="checkbox"/> Suburban Residential		Other: _____	
<input checked="" type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known): Ret Pond - down - Beside Wal-Mart next Ret pond			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input type="checkbox"/> Single <input type="checkbox"/> Elliptical <input type="checkbox"/> Double <input type="checkbox"/> Box <input type="checkbox"/> Triple <input checked="" type="checkbox"/> Other: _____	Diameter/Dimensions: 18" out vent	In Water: <input checked="" type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)			
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description (if present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

Section 3: Quantitative Characterization

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

Outfall Reconnaissance Inventory Field Sheet



Section 4: Physical Indicators for Flowing Outfalls Only

(If No, Skip to Section 5)

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

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

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

NEEDS FOLLOW UP?? NO YES

2-8-16

2503 Hammond St



OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

Section 1: Background Data

4236

Subwatershed:		Outfall ID:	
Today's date: 2.5.2016		Time (Military): 1135	
Investigators: JH		Form completed by: JH	
Temperature (°F): 50	Rainfall (in.): Last 24 hours: 5		Last 48 hours:
Latitude:	Longitude:	GPS Unit:	GPS LMK #:
Camera: <input checked="" type="checkbox"/>	Photo #s: <input checked="" type="checkbox"/>		
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial	<input type="checkbox"/> Open Space		
<input type="checkbox"/> Ultra-Urban Residential	<input type="checkbox"/> Institutional		
<input type="checkbox"/> Suburban Residential	Other: _____		
<input type="checkbox"/> Commercial	Known Industries: _____		
Notes (e.g., origin of outfall, if known): Branches - Pit Bull			

Section 2: Outfall Description

Looks to be corr. - Blue Plus 1/2

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED	
<input checked="" type="checkbox"/> Closed Pipe	<input type="checkbox"/> RCP <input type="checkbox"/> PVC <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input type="checkbox"/> Elliptical <input type="checkbox"/> Box <input checked="" type="checkbox"/> Other: _____	<input checked="" type="radio"/> Single <input type="radio"/> Double <input type="radio"/> Triple <input checked="" type="radio"/> Other: _____	Diameter/Dimensions: 18"	In Water: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____		
<input type="checkbox"/> In-Stream	(applicable when collecting samples)				
Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>				
Flow Description (if present)	<input type="checkbox"/> Trickle <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Substantial				

Section 3: Quantitative Characterization

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

Outfall Reconnaissance Inventory Field Sheet



Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

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

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

NEEDS FOLLOW UP?? NO YES

2-5-16

6 3 4

Invent



OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

Section 1: Background Data

5464

Subwatershed:		Outfall ID:	
Today's date: 2 15 20 16		Time (Military): 1150	
Investigators: JH		Form completed by: JH	
Temperature (°F): 51	Rainfall (in.): Last 24 hours: <input checked="" type="checkbox"/> Last 48 hours: <input checked="" type="checkbox"/>		
Latitude:	Longitude:	GPS Unit:	GPS LMK #:
Camera: <input checked="" type="checkbox"/>	Photo #s: _____		
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial	<input type="checkbox"/> Open Space		
<input type="checkbox"/> Ultra-Urban Residential	<input type="checkbox"/> Institutional		
<input checked="" type="checkbox"/> Suburban Residential	Other: _____		
<input type="checkbox"/> Commercial	Known Industries: _____		
Notes (e.g., origin of outfall, if known): Below church parking lot - Invent			

OPEN

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED	
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Circular <input type="checkbox"/> Elliptical <input type="checkbox"/> Box <input checked="" type="checkbox"/> Other: _____	<input checked="" type="radio"/> Single <input type="radio"/> Double <input type="radio"/> Triple <input checked="" type="radio"/> Other: _____	Diameter/Dimensions: 36"	In Water: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____		
<input type="checkbox"/> In-Stream	(applicable when collecting samples)				
Flow Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>				
Flow Description (If present)	<input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial				

Section 3: Quantitative Characterization

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

5464-6464

Outfall Reconnaissance Inventory Field Sheet



Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

1. Sample for the lab? Yes No

2. If yes, collected from: Flow Pool

3. Intermittent flow trap set? Yes No If Yes, type: OBM Caulk dam

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

NEEDS FOLLOW UP?? NO YES

2-5-16

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET



Section 1: Background Data

Subwatershed:		Outfall ID: 8609	
Today's date: 2/3/2016		Time (Military): 9:14	
Investigators:		Form completed by:	
Temperature (°F): 52	Rainfall (in.): Last 24 hours: 1.0 Last 48 hours:		
Latitude:	Longitude:	GPS Unit:	GPS LMK #:
Camera: <input checked="" type="checkbox"/>		Photo #s: <input checked="" type="checkbox"/>	
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial	<input type="checkbox"/> Open Space		
<input checked="" type="checkbox"/> Ultra-Urban Residential	<input type="checkbox"/> Institutional		
<input type="checkbox"/> Suburban Residential	Other: _____		
<input type="checkbox"/> Commercial	Known Industries: _____		
Notes (e.g., origin of outfall, if known): 3 culverts at MLK + Long street			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED	
<input checked="" type="checkbox"/> Closed Pipe	<input type="checkbox"/> RCP <input type="checkbox"/> PVC <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input type="checkbox"/> Elliptical <input type="checkbox"/> Box <input checked="" type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Single <input type="checkbox"/> Double <input type="checkbox"/> Triple <input checked="" type="checkbox"/> Other: _____	Diameter/Dimensions: 48" X 3 p.pies	In Water: <input type="checkbox"/> No <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____		
<input type="checkbox"/> In-Stream	(applicable when collecting samples)				
Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>				
Flow Description (If present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Substantial				

Section 3: Quantitative Characterization

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

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET



Section 1: Background Data

8439

Subwatershed:		Outfall ID:	
Today's date: 21 3/20 16		Time (Military): 9:14	
Investigators: JH		Form completed by: JH	
Temperature (°F): 52	Rainfall (in.): Last 24 hours: 1. Last 48 hours:		
Latitude:	Longitude:	GPS Unit:	GPS LMK #:
Camera:		Photo #s:	
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Ultra-Urban Residential <input type="checkbox"/> Suburban Residential <input type="checkbox"/> Commercial		<input type="checkbox"/> Open Space <input type="checkbox"/> Institutional Other: _____ Known Industries: _____	
Notes (e.g., origin of outfall, if known): 3 culverts at MUK + Long St			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED	
<input checked="" type="checkbox"/> Closed Pipe	<input type="checkbox"/> RCP <input checked="" type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input type="checkbox"/> Elliptical <input type="checkbox"/> Box <input checked="" type="checkbox"/> Other: _____	<input checked="" type="radio"/> Single <input type="radio"/> Double <input type="radio"/> Triple <input checked="" type="radio"/> Other: _____	Diameter/Dimensions: 48" x 3"	In Water: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____		
<input type="checkbox"/> In-Stream	(applicable when collecting samples)				
Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>				
Flow Description (if present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Substantial				

Section 3: Quantitative Characterization

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

Outfall Reconnaissance Inventory Field Sheet



Section 4: Physical Indicators for Flowing Outfalls Only

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

8439

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

1. Sample for the lab? Yes No
2. If Yes, collected from: Flow Pool
3. Intermittent flow trap set? Yes No

If Yes, type: OBM Caulk dam

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

NEEDS FOLLOW UP?? NO YES

2-9-16

Need rebuild old



OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

Section 1: Background Data

Subwatershed:		Outfall ID: <u>8252</u>	
Today's date: <u>2, 9¹²⁰ 16</u>		Time (Military): <u>10:23</u>	
Investigators: <u>JH</u>		Form completed by: <u>JH</u>	
Temperature (°F): <u>47</u>	Rainfall (in.): Last 24 hours: <u>1.0</u> Last 48 hours: _____		
Latitude: _____	Longitude: _____	GPS Unit: _____	GPS LMK #: _____
Camera: _____	Photo #s: _____		
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial	<input type="checkbox"/> Open Space		
<input type="checkbox"/> Ultra-Urban Residential	<input type="checkbox"/> Institutional		
<input type="checkbox"/> Suburban Residential	Other: _____		
<input checked="" type="checkbox"/> Commercial	Known Industries: _____		
Notes (e.g., origin of outfall, if known): <u>Rest area full - for offices</u>			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED	
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input type="checkbox"/> Elliptical <input type="checkbox"/> Box <input checked="" type="checkbox"/> Other: _____	<input checked="" type="radio"/> Single <input type="radio"/> Double <input type="radio"/> Triple <input checked="" type="radio"/> Other: _____	Diameter/Dimensions: <u>12"</u> Depth: _____ Top Width: _____ Bottom Width: _____	In Water: <input checked="" type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____			
<input type="checkbox"/> In-Stream	(applicable when collecting samples)				
Flow Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If No, Skip to Section 5			
Flow Description (if present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial				

Section 3: Quantitative Characterization

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

Outfall Reconnaissance Inventory Field Sheet



Section 4: Physical Indicators for Flowing Outfalls Only

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

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

0439

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

1. Sample for the lab? Yes No

2. If Yes, collected from: Flow Pool

3. Intermittent flow trap set? Yes No

If Yes, type: OBM Caulk dam

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

NEEDS FOLLOW UP?? NO YES

Needs rebarbing
2-4-16 B

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET



Section 1: Background Data

7815

Subwatershed:		Outfall ID:	
Today's date: 2/4/20 16		Time (Military): 10:22	
Investigators:		Form completed by: JH	
Temperature (°F): 48	Rainfall (in.): Last 24 hours: 1.0	Last 48 hours:	
Latitude:	Longitude:	GPS Unit:	GPS LMK #:
Camera:		Photo #s:	
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial <input type="checkbox"/> Ultra-Urban Residential <input type="checkbox"/> Suburban Residential <input checked="" type="checkbox"/> Commercial		<input type="checkbox"/> Open Space <input type="checkbox"/> Institutional Other: _____ Known Industries: _____	
Notes (e.g., origin of outfall, if known): outfall from Ret Pond - plastic corr.			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED	
<input checked="" type="checkbox"/> Closed Pipe	<input type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: plastic	<input checked="" type="checkbox"/> Circular <input type="checkbox"/> Elliptical <input type="checkbox"/> Box <input checked="" type="checkbox"/> Other: _____	<input checked="" type="radio"/> Single <input type="radio"/> Double <input type="radio"/> Triple <input checked="" type="radio"/> Other: _____	Diameter/Dimensions: <div style="font-size: 2em; text-align: center;">12"</div>	In Water: <input checked="" type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____		
<input type="checkbox"/> In-Stream	(applicable when collecting samples)				
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>				
Flow Description (If present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial				

Section 3: Quantitative Characterization

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

Outfall Reconnaissance Inventory Field Sheet



Section 4: Physical Indicators for Flowing Outfalls Only

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

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

8252

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

1. Sample for the lab? Yes No

2. If yes, collected from: Flow Pool

3. Intermittent flow trap set? Yes No

If Yes, type: OBM Caulk dam

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

NEEDS FOLLOW UP?? NO YES

2-4-16

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET



Section 1: Background Data

Subwatershed:		Outfall ID: 6156	
Today's date: 2 / 4 / 20 16		Time (Military): 10:25	
Investigators: JH		Form completed by: JH	
Temperature (°F): 47	Rainfall (in.): Last 24 hours: 1.0 Last 48 hours:		
Latitude: "	Longitude:	GPS Unit:	GPS LMK #:
Camera: <input checked="" type="checkbox"/>	Photo #s: ✓		
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input type="checkbox"/> Ultra-Urban Residential		<input type="checkbox"/> Institutional	
<input type="checkbox"/> Suburban Residential		Other: _____	
<input checked="" type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known): 1st street Road culvert -			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED	
<input checked="" type="checkbox"/> Closed Pipe	<input type="checkbox"/> RCP <input checked="" type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input type="checkbox"/> Elliptical <input type="checkbox"/> Box <input checked="" type="checkbox"/> Other: _____	<input checked="" type="radio"/> Single <input type="radio"/> Double <input type="radio"/> Triple <input checked="" type="radio"/> Other: _____	Diameter/Dimensions: <div style="font-size: 2em; text-align: center;">48"</div>	In Water: <input type="checkbox"/> No <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input checked="" type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input checked="" type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____		
<input type="checkbox"/> In-Stream	(applicable when collecting samples)				
Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>				
Flow Description (if present)	<input type="checkbox"/> Trickle <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Substantial				

Section 3: Quantitative Characterization

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

Outfall Reconnaissance Inventory Field Sheet



Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

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

If Yes, type: OBM Caulk dam

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

NEEDS FOLLOW UP?? NO YES

2-4-16

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only (If No, Skip to Section 5)

6156



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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

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

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

NEEDS FOLLOW UP?? NO YES

204-16

Moore's Mill Creek at Capps Landing Bridge

AwwSiteCd	Sample_Date	Air_Temp	Water_Temp	pH	DO1	DO2	Oxygen	DO_Saturation	Alk_Drops	Hard_Drops	Turb1	Turbidity
07022002	4/27/2015	20	16	7	8.1	7.8	7.95	80.6	8	8	0	2
07022002	6/16/2015	22	18	7	8.2	8	8.1	82.3	9	7	2	3
07022002	7/24/2015	24	20	6.5	7.6	7.4	7.5	79.5	9	6	3	5
07022002	8/24/2015	25	21	7	6.9	6.7	6.8	72.6	10	8	1	3
07022002	9/22/2015	26	21	7.5	6.4	6.3	6.35	71.6	10	6	5	25
7022002	10/29/2015	20	17	7	5	5	5	51.5	13	6	2	10
7022002	11/25/2015	13.3	11	7	9.2	9.1	9.15	86.15	10	8	1	5
7022002	12/14/2015	13.8	16	7	8	8	8	80.72	4	6	5	25
7022002	1/26/2016	10	10	7	9.5	9.5	9.5	83.4	6	10	1	5
7022002	2/18/2016	17.2	11	7.5	8.6	8.4	8.5	8.45	7	11	1	5
7022002	3/22/2016	13.9	12	7	7.8	7.6	7.7	7.65	8	9	2	3

Moore's Mill Creek at BENT creek bridge

AwSiteCd	Sample_Date	Air_Temp	Water_Temp	pH	DO1	DO2	Oxygen	DO_Satura	Alk_Drops	Hard_Drop	Turb1	Turbidity
07022003	4/27/2015	21	18	6.5	6.6	6.4	6.5	68.6	10	5	0	2
07022003	6/16/2015	24	19	6.5	5.5	5.6	5.55	63.2	8	6	1	2
07022003	7/24/2015	25	20	7	6.1	6.2	6.15	58.6	11	5	0	1
07022003	8/24/2015	25	21	7	5.8	6	5.9	57.3	10	8	2	1
07022003	9/22/2015	23	20	7.5	5.6	5.7	5.65	63.7	13	8	3	15
07022003	10/29/2015	20	17	7	4.3	4.4	4.35	52.1	11	5	4	20
07022003	11/25/2015	7.2	12	8	8.9	8.7	8.8	80.95	9	6	2	10
07022003	12/14/2015	13.8	17	7	7.9	7.9	7.9	81.52	6	6	5	25
07022003	1/26/2016	8.9	9	7	10	9.8	9.9	84.9	6	8	3	15
7022003	2/18/2016	17.2	12	7.5	8	8.2	8.1	82.3	7	7	2	5
7022003	3/22/2016	13.9	15	7	7.8	7.6	7.7	79.3	8	9	3	8

REPORT OF ANALYSIS

CITY OF OPELIKA
P.O. BOX 390
OPELIKA, AL 36801

SAMPLE DATE/TIME: 26 JAN 16/0845
SAMPLE # 129143/129144

SAMPLE TYPE: STORMWATER
SAMPLE LOCATION: BENT CREEK

PARAMETER	ANALYSIS	DETECTION LEVEL	ANALYST	METHOD	DATE	TIME
TOTAL P	<0.0400 mg/l	0.0400 mg/l	VVK	200.7	02-01-16	1546
TSS	7.2 mg/l	1.0 mg/l	CEA	160.2	01-28-16	1449

SAMPLE DATE/TIME: 26 JAN 16/0930
SAMPLE # 129145/129146

SAMPLE TYPE: STORMWATER
SAMPLE LOCATION: CAPPS

PARAMETER	ANALYSIS	DETECTION LEVEL	ANALYST	METHOD	DATE	TIME
TOTAL P	<0.0400 mg/l	0.0400 mg/l	VVK	200.7	02-01-16	1546
TSS	<1.0 mg/l	1.0 mg/l	CEA	160.2	01-28-16	1449

SAMPLE DATE/TIME: 26 JAN 16/0910
SAMPLE # 129147/129148

SAMPLE TYPE: STORMWATER
SAMPLE LOCATION: HAMILTON

PARAMETER	ANALYSIS	DETECTION LEVEL	ANALYST	METHOD	DATE	TIME
TOTAL P	<0.0400 mg/l	0.0400 mg/l	VVK	200.7	02-01-16	1546
TSS	2.0	1.0 mg/l	CEA	160.2	01-28-16	1449

SAMPLES ANALYZED ACCORDING TO:
STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, 19TH EDITION, 1995.
EPA METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTES, 600/4-79-020 AUGCH 1983.

REPORT APPROVED BY:



THOMAS BRANTLY, JR
LABORATORY MANAGER

REVIEWED BY: *B*



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1-800-408-0083
MWallace@AuburnEnvironmental.com
PO BOX 271716 FT. COLLINS, CO 80527

REPORT OF ANALYSIS

CITY OF OPELIKA
P.O. BOX 390
OPELIKA, AL 36801

SAMPLE DATE/TIME: 22 FEB 16/1230
SAMPLE # 129392

SAMPLE TYPE: STORMWATER
SAMPLE LOCATION: CUNNINGHAM

PARAMETER	ANALYSIS	DETECTION LEVEL	ANALYST	METHOD	DATE	TIME
TOTAL P	0.0770 mg/l	0.0530 mg/l	VVK	200.7	03-01-16	1139

SAMPLE DATE/TIME: 22 FEB 16/1330
SAMPLE # 129393

SAMPLE TYPE: STORMWATER
SAMPLE LOCATION: PEPPERELL-WAVERLY

PARAMETER	ANALYSIS	DETECTION LEVEL	ANALYST	METHOD	DATE	TIME
TOTAL P	0.0740 mg/l	0.0500 mg/l	VVK	200.7	03-01-16	1139

SAMPLE DATE/TIME: 22 FEB 16/1300
SAMPLE # 129394

SAMPLE TYPE: STORMWATER
SAMPLE LOCATION: PEPPERELL-PEP. PKWY

PARAMETER	ANALYSIS	DETECTION LEVEL	ANALYST	METHOD	DATE	TIME
TOTAL P	0.130 mg/l	0.0530 mg/l	VVK	200.7	03-01-16	1139

SAMPLE DATE/TIME: 18 FEB 16/1359
SAMPLE # 129389

SAMPLE TYPE: STORMWATER
SAMPLE LOCATION: HAMPTON OF-1

PARAMETER	ANALYSIS	DETECTION LEVEL	ANALYST	METHOD	DATE	TIME
TSS	6.8 mg/l	1.0 mg/l	CEA	160.2	02-23-16	1444

SAMPLE DATE/TIME: 18 FEB 16/1345
SAMPLE # 129390

SAMPLE TYPE: STORMWATER
SAMPLE LOCATION: HAMILTON OF-2

PARAMETER	ANALYSIS	DETECTION LEVEL	ANALYST	METHOD	DATE	TIME
TSS	3.6 mg/l	1.0 mg/l	CEA	160.2	02-23-16	1444

SAMPLE DATE/TIME: 26 FEB 16/1230
SAMPLE # 129468

SAMPLE TYPE: STORMWATER
SAMPLE LOCATION: HAMILTON HAM LAKE

PARAMETER	ANALYSIS	DETECTION LEVEL	ANALYST	METHOD	DATE	TIME
TSS	8.0	1.0 mg/l	CEA	160.2	03-01-16	1450

SAMPLES ANALYZED ACCORDING TO:
STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, 19TH EDITION, 1995.
EPA METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTES, 600/4-79-020 AUGCH 1983.

REPORT APPROVED BY:

THOMAS BRANTLY, JR
LABORATORY MANAGER

REVIEWED BY: *B*

P

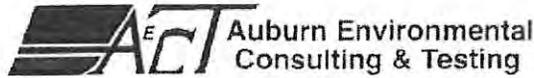
TSS

see TSS

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10-29-15

Moore's Mill ck



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PO BOX 271716 FT. COLLINS CO 80527

03 150 1100-202-

REPORT OF ANALYSIS

CITY OF OPELIKA
P.O. BOX 390
OPELIKA, AL 36801

SAMPLE DATE/TIME: 29 OCT 15/0900
SAMPLE # 128432

SAMPLE TYPE: STORMWATER
SAMPLE LOCATION: BENT CREEK BRIDGE

PARAMETER	ANALYSIS	DETECTION LEVEL	ANALYST	METHOD	DATE	TIME
TOTAL P	<0.500 mg/l	0.500 mg/l	VVK	200.7	11-04-15	0800

SAMPLE DATE/TIME: 29 OCT 15/0915
SAMPLE # 128433

SAMPLE TYPE: STORMWATER
SAMPLE LOCATION: HAMILTON RD BRIDGE

PARAMETER	ANALYSIS	DETECTION LEVEL	ANALYST	METHOD	DATE	TIME
TOTAL P	<0.500 mg/l	0.500 mg/l	VVK	200.7	11-04-15	0800

SAMPLE DATE/TIME: 29 OCT 15/1000
SAMPLE # 128434

SAMPLE TYPE: STORMWATER
SAMPLE LOCATION: CAPPS LANDING

PARAMETER	ANALYSIS	DETECTION LEVEL	ANALYST	METHOD	DATE	TIME
TOTAL P	<0.500 mg/l	0.500 mg/l	VVK	200.7	11-04-15	0800

SAMPLES ANALYZED ACCORDING TO:
STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, 19TH EDITION, 1995
EPA METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTES, 600/4-79-020 AUGCH 1983.

REPORT APPROVED BY:

THOMAS BRANTLY, JR
LABORATORY MANAGER

REVIEWED BY:

Michael Strain

04
10/29/15



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REPORT OF ANALYSIS

**CITY OF OPELIKA
 P.O. BOX 390
 OPELIKA, AL 36801**

SAMPLE DATE/TIME: 23 NOV 15/1000
 SAMPLE # 128681

SAMPLE TYPE: STORMWATER
 SAMPLE LOCATION: BENT CREEK BRIDGE

PARAMETER	ANALYSIS	DETECTION LEVEL	ANALYST	METHOD	DATE	TIME
TOTAL P	<0.0400 mg/l	0.0400 mg/l	VVK	200.7	12-03-15	1224

SAMPLE DATE/TIME: 23 NOV 15/1015
 SAMPLE # 128682

SAMPLE TYPE: STORMWATER
 SAMPLE LOCATION: HAMILTON RD BRIDGE

PARAMETER	ANALYSIS	DETECTION LEVEL	ANALYST	METHOD	DATE	TIME
TOTAL P	<0.0400 mg/l	0.0400 mg/l	VVK	200.7	12-03-15	1224

SAMPLE DATE/TIME: 23 NOV 15/1020
 SAMPLE # 128683

SAMPLE TYPE: STORMWATER
 SAMPLE LOCATION: CAPPS LANDING

PARAMETER	ANALYSIS	DETECTION LEVEL	ANALYST	METHOD	DATE	TIME
TOTAL P	<0.0400 mg/l	0.0400 mg/l	VVK	200.7	12-03-15	1224

SAMPLES ANALYZED ACCORDING TO:
 STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, 19TH EDITION, 1995.
 EPA METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTES, 600/4-79-020 AUGCH 1983.

REPORT APPROVED BY:

THOMAS BRANTLY, JR
 LABORATORY MANAGER

REVIEWED BY:



ACT PROJECT NO.: 205
STUDY: NPDES

CLIENT: CITY OF OPELIKA
SITE: OUT FALL 1
PERMIT#: ALR040018

TRANSFER TO: AUBURN ENVIRONMENTAL
6485 LEE ROAD 54
AUBURN, AL 36830
(334) 745-0055

MATRIX: (circle one) LIQUID SOLID

SAMPLE# LAB USE ONLY	ANALYSIS, MEASUREMENT	DATE COLLECTED	TIME COLLECTED	PERSON COLLECTING
128681	TOTAL Phosphorus: PRESERVED HNO ₃	11-23-15	10 AM	JMIF

City of Opelika

384-705-5454

SAMPLE CHAIN OF CUSTODY:

COURIER
YES NO

TRANSFERRED BY: X *John M. Harris*

DATE/TIME: *10:38*

RECEIVED BY: X _____

DATE/TIME: _____

TRANSFERRED BY: X _____

DATE/TIME: _____

RECEIVED BY: X *Commanda Brink*

DATE/TIME: *23 Nov 15 1038*

X

PLEASE DO NOT WRITE BELOW THIS LINE

LAB 23 Nov 15

TEMPERATURE OF SAMPLES WHEN REC'D BY LAB: *N/A* °C

SAMPLES STORED IN REFRIGERATOR ID#: *2167* THERMOMETER ID#: *N/A*

SHIPPED BY: *Client* TRACKING #: *N/A*

AECT BOTTLES: YES NO



ACT PROJECT NO.: 205
STUDY: NPDES

CLIENT: CITY OF OPELIKA
SITE: OUT FALL 2
PERMIT#: ALR040018

TRANSFER TO: AUBURN ENVIRONMENTAL
6485 LEE ROAD 54
AUBURN, AL 36830
(334) 745-0055

MATRIX: (circle one) LIQUID SOLID

SAMPLE# LAB USE ONLY	ANALYSIS, MEASUREMENT	DATE COLLECTED	TIME COLLECTED	PERSON COLLECTING
178682	TOTAL Phosphorus: PRESERVED HNO ₃	11-23-15	10:15 AM	JMIF

334-705-5454

SAMPLE CHAIN OF CUSTODY:

COURIER
YES NO

TRANSFERRED BY: X <u>John M. Harris</u>	DATE/TIME: <u>10:30 P</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
RECEIVED BY: X _____	DATE/TIME: _____	<input type="checkbox"/>	<input type="checkbox"/>
TRANSFERRED BY: X _____	DATE/TIME: _____	<input type="checkbox"/>	<input type="checkbox"/>
RECEIVED BY: X <u>Chanda Baily</u>	DATE/TIME: <u>23 Nov 15 1038</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

PLEASE DO NOT WRITE BELOW THIS LINE

TEMPERATURE OF SAMPLES WHEN REC'D BY LAB: N/A °C

SAMPLES STORED IN REFRIGERATOR ID#: 2107 THERMOMETER ID#: N/A

SHIPPED BY: Client TRACKING #: N/A

AECT BOTTLES: YES NO _____



ACT PROJECT NO.: 205
STUDY: NPDES

CLIENT: CITY OF OPELIKA
SITE: OUT FALL 3
PERMIT#: ALR040018

TRANSFER TO: AUBURN ENVIRONMENTAL
6485 LEE ROAD 54
AUBURN, AL 36830
(334) 745-0055

MATRIX: (circle one) LIQUID SOLID

SAMPLE# LAB USE ONLY	ANALYSIS, MEASUREMENT	DATE COLLECTED	TIME COLLECTED	PERSON COLLECTING
1281083	TOTAL Phosphorus: PRESERVED HNO ₃	11-23-15	10:20 AM	JMH

334 - 705-5454

SAMPLE CHAIN OF CUSTODY:

COURIER
YES NO

TRANSFERRED BY: X <u>John M. Harris</u>	DATE/TIME: <u>10:28</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
RECEIVED BY: X _____	DATE/TIME: _____	<input type="checkbox"/>	<input type="checkbox"/>
TRANSFERRED BY: X _____	DATE/TIME: _____	<input type="checkbox"/>	<input type="checkbox"/>
RECEIVED BY: X <u>Amanda Brishy</u>	DATE/TIME: <u>23 Nov 15 1038</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

PLEASE DO NOT WRITE BELOW THIS LINE

TEMPERATURE OF SAMPLES WHEN REC'D BY LAB: N/A °C

SAMPLES STORED IN REFRIGERATOR ID#: 267 THERMOMETER ID#: N/A

SHIPPED BY: Client TRACKING #: N/A

AECT BOTTLES: YES NO _____

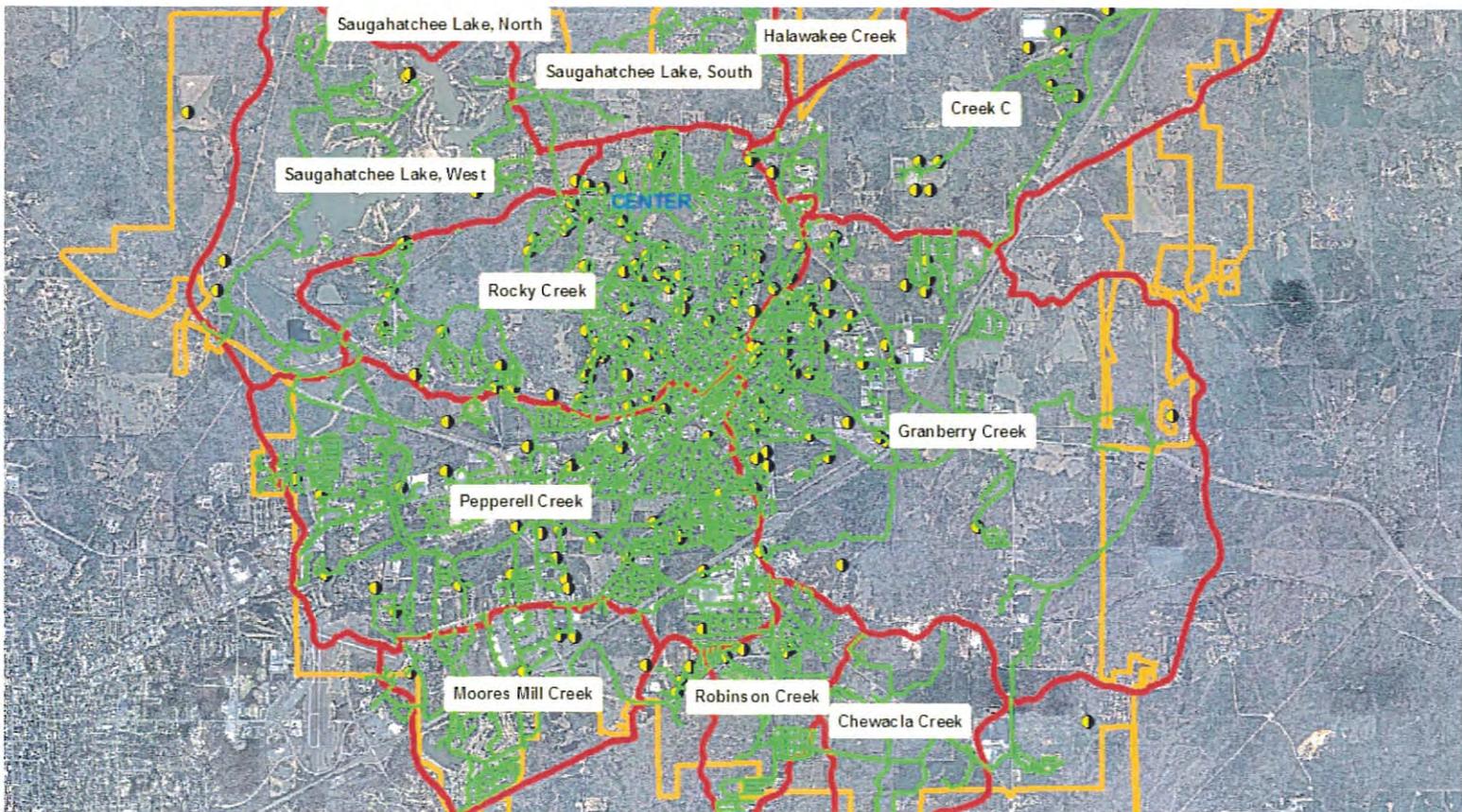


C4. Opelika GIS Storm Sewer Map

City Map

Sewer lines in GREEN

Outfall pipes in Yellow & Black





Appendix D

Construction Site Storm Water Runoff Control



D2. Opelika's QCP and QCI Personnel Certifications

**STATE OF ALABAMA
BOARD OF LICENSURE FOR PROFESSIONAL
ENGINEERS AND LAND SURVEYORS**

SCOTT HAMILTON PARKER

is duly licensed as a
Professional Engineer

License No. 24171

Status: ACTIVE

Regina Dinger
Executive Director

Lapse Date
December 31, 2015

QCI Training Program **Certificate of Completion**

is hereby granted to:

John M. Harris
City of Opelika

for satisfactory completion of 8 instructional hours



Initial Training Class

November 5, 2015

Instructor Names

John Carlton, Joel Seawell



QCI NO: T4431

EXPIRES: 11/05/2016



ADEM Alabama Department of Environmental Management

QCI Training Program

Certificate of Completion

is hereby granted to:

Jeff Kappelman

City of Opelika

for satisfactory completion of

Online Refresher Training

QCI No. T3482
Expires 11/12/2016

This certificate confers four (4.0) professional development hour (PDH) equivalents to students who require credits for licenses or certifications. Such PDHs are subject to the qualifying requirements of the licensing or certifying organization.



ADEM Alabama Department of Environmental Management

QCI Training Program

Certificate of Completion

is hereby granted to:

David Chapman

City of Opelika

for satisfactory completion of

Online Refresher Training

QCI No. T3480
Expires 11/12/2016

This certificate confers four (4.0) professional development hour (PDH) equivalents to students who require credits for licenses or certifications. Such PDHs are subject to the qualifying requirements of the licensing or certifying organization.

ADEM Alabama Department of Environmental Management

QCI Training Program

Certificate of Completion

is hereby granted to:

Brady Pollock

City of Opelika

for satisfactory completion of

Online Refresher Training

QCI No. T0163
Expires 11/5/2016

This certificate confers four (4.0) professional development hour (PDH) equivalents to students who require credits for licenses or certifications. Such PDHs are subject to the qualifying requirements of the licensing or certifying organization.



D3. Land Disturbance Permits



**Land Disturbance Permit
Site Plan Review and Notice to Proceed**

Opelika Engineering and Public Works Department
700 Fox Trail, Opelika, AL 36801
(334) 705-5150, (334) 705-5400

PART I. SITE INFORMATION:

JOB NAME: M.O.B. Shell Building #2 _____ OWNER: East Alabama Health Authority _____

LOCATION: 2430-2432 Village Professional Park ADDRESS: 2000 Pepperell Parkway Opelika, AL _____

PHONE: _____

ARCHITECT/CONTRACTOR: Harmon Engineering—Alan Tucker

ADDRESS: 13367 C.L. Torbert, Jr. Parkway Lafayette, AL PHONE: 334-864-8046

TYPE OF WORK: COMMERCIAL INDUSTRIAL PUBLIC SUBDIVISION

AREA OF DISTURBANCE: < 5 ACRE 5 ACRES TO 10 ACRES

10 ACRES TO 25 ACRES 25 ACRES TO 50 ACRES 50 ACRES TO 75 ACRES

75 ACRES TO 100 ACRES GREATER THAN 100 ACRES

LAND DISTURBANCE FEE REQUIRED: \$ 60.00 PAID Ck # 10762

PERFORMACNE BOND REQUIRED: \$ _____

PART II. PLANS REVIEWED FOR:

Storm Drain System

Sanitary Sewer System

Utilities

Erosion Sediment Control Plan

Post Construction Storm Water

Access Management Spacing

N/A Roadway Alignment and build-up

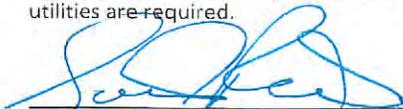
PART III. APPROVAL and NOTICE TO PROCEED:

Approved as Submitted

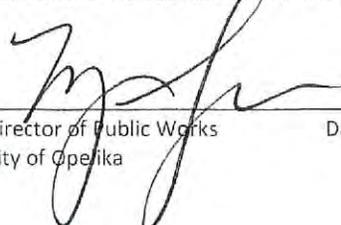
Approved Subject to Conditions

Not Approved

COMMENTS: If the Land Disturbance Fee has been paid and a Performance Bond has been submitted if required, the signatures below signify a notice to proceed with the development. All communications and coordination with the proper departments and utilities are required.

 4/27/2015

City Engineer Date
City of Opelika

 4-27-15

Director of Public Works Date
City of Opelika

***Note:** The acceptance of this plan review does not represent a permit for building construction. The permit for construction must be obtained separately from the Opelika Building Permits office.



Proudly Serving the City of Opelika



Land Disturbance Permit
Site Plan Review and Notice to Proceed

Opelika Engineering and Public Works Department
700 Fox Trail, Opelika, AL 36801
(334) 705-5150, (334) 705-5400

PART I. SITE INFORMATION:

JOB NAME: Opelika Farmers Market OWNER: Rusty and Mitch Nix
LOCATION: 2320 1st Avenue - Opelika, AL ADDRESS: 3829 Pepperell Parkway - Opelika AL
PHONE: 334-737-2080
ARCHITECT/CONTRACTOR: Barrett-Simpson, Inc.—Blake Rice
ADDRESS: 223 S. 9th Street - Opelika, AL PHONE: 334-705-7026
TYPE OF WORK: [X] COMMERCIAL [] INDUSTRIAL [] PUBLIC SUBDIVISION
AREA OF DISTURBANCE: [X] < 5 ACRE [] 5 ACRES TO 10 ACRES
[] 10 ACRES TO 25 ACRES [] 25 ACRES TO 50 ACRES [] 50 ACRES TO 75 ACRES
[] 75 ACRES TO 100 ACRES [] GREATER THAN 100 ACRES
[X] LAND DISTURBANCE FEE REQUIRED: \$ 60.00 Paid Check #
[] PERFORMACNE BOND REQUIRED: \$

PART II. PLANS REVIEWED FOR:

[X] Storm Drain System [X] Sanitary Sewer System
[] Erosion Sediment Control Plan [] Post Construction Storm Water
[] Access Management Spacing [X] Roadway Alignment and build-up
Handwritten notes: Please add Opelika Public Works Department as Sanitary Sewer Contact. Fence around detention pond is not needed or recommended.

PART III. APPROVAL and NOTICE TO PROCEED:

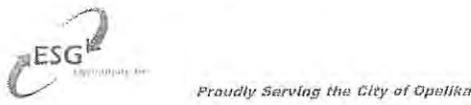
[] Approved as Submitted [X] Approved Subject to Conditions [] Not Approved

COMMENTS: If the Land Disturbance Fee has been paid and a Performance Bond has been submitted if required, the signatures below signify a notice to proceed with the development. All communications and coordination with the proper departments and utilities are required.

Signature of City Engineer, Date: 4/27/2015

Signature of Director of Public Works, Date: 4-27-15

*Note: The acceptance of this plan review does not represent a permit for building construction. The permit for construction must be obtained separately from the Opelika Building Permits office.





Land Disturbance Permit
Site Plan Review and Notice to Proceed

Opelika Engineering and Public Works Department
700 Fox Trail, Opelika, AL 36801
(334) 705-5150, (334) 705-5400

PART I. SITE INFORMATION:

JOB NAME: Oral & Facial Surgery Building OWNER:

LOCATION: 2971 Corporate Park Drive ADDRESS: Opelika, AL

PHONE:

ARCHITECT/CONTRACTOR: Harmon Engineering—Brian Lee

ADDRESS: 13376 C.L. Torbert Jr. Parkway, Lafayette, AL PHONE: 334-864-9735

TYPE OF WORK: [X] COMMERCIAL [] INDUSTRIAL [] PUBLIC SUBDIVISION

AREA OF DISTURBANCE: [X] < 5 ACRE [] 5 ACRES TO 10 ACRES

[] 10 ACRES TO 25 ACRES [] 25 ACRES TO 50 ACRES [] 50 ACRES TO 75 ACRES

[] 75 ACRES TO 100 ACRES [] GREATER THAN 100 ACRES

[X] LAND DISTURBANCE FEE REQUIRED: \$ 60.00 Paid ck # 10669

[] PERFORMACNE BOND REQUIRED: \$

PART II. PLANS REVIEWED FOR:

[X] Storm Drain System

[] Sanitary Sewer System

[] Utilities

[X] Erosion Sediment Control Plan

NA Post Construction Storm Water

[] Access Management Spacing

[] Roadway Alignment and build-up

PART III. APPROVAL and NOTICE TO PROCEED:

[X] Approved as Submitted

[] Approved Subject to Conditions

[] Not Approved

COMMENTS: If the Land Disturbance Fee has been paid and a Performance Bond has been submitted if required, the signatures below signify a notice to proceed with the development. All communications and coordination with the proper departments and utilities are required.

[Signature] 4/8/2015
City Engineer
City of Opelika

[Signature] 4-8-2015
Director of Public Works
City of Opelika

*Note: The acceptance of this plan review does not represent a permit for building construction. The permit for construction must be obtained separately from the Opelika Building Permits office.



Proudly Serving the City of Opelika



Land Disturbance Permit
Site Plan Review and Notice to Proceed

Opelika Engineering and Public Works Department
700 Fox Trail, Opelika, AL 36801
(334) 705-5150, (334) 705-5400

PART I. SITE INFORMATION:

JOB NAME: The Paces at the Estates II OWNER: Estates of Auburn, LLC—Pace Burk
LOCATION: off Academy Drive Opelika ADDRESS: 539 NWestover Blv Albany GA 31707
PHONE:

ENGINEER: Hydro Engineering/Trimble—J.T. Thomas
ADDRESS: P.O. Box 2889 Auburn, AL 36830 PHONE: 334-466-0894

TYPE OF WORK: [X] COMMERCIAL [] INDUSTRIAL [] PUBLIC SUBDIVISION
AREA OF DISTURBANCE: [] < 5 ACRE [X] 5 ACRES TO 10 ACRES
[] 10 ACRES TO 25 ACRES [] 25 ACRES TO 50 ACRES [] 50 ACRES TO 75 ACRES
[] 75 ACRES TO 100 ACRES [] GREATER THAN 100 ACRES

[X] LAND DISTURBANCE FEE REQUIRED: \$ 120.00 Paid Oct # 1377 4/17/2015
[] PERFORMACNE BOND REQUIRED: \$

PART II. PLANS REVIEWED FOR:

- [X] Storm Drain System [X] Sanitary Sewer System [] Utilities
[X] Erosion Sediment Control Plan [] Post Construction Storm Water
[X] Access Management Spacing [] Roadway Alignment and build-up

PART III. APPROVAL and NOTICE TO PROCEED:

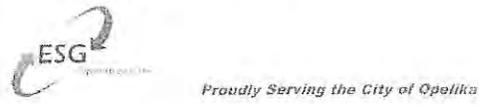
[] Approved as Submitted [X] Approved Subject to Conditions [] Not Approved

COMMENTS: If the Land Disturbance Fee has been paid and a Performance Bond has been submitted if required, the signatures below signify a notice to proceed with the development. All communications and coordination with the proper departments and utilities are required.

[Signature] 2/19/2015
City Engineer Date
City of Opelika

[Signature] 2-19-2015
Director of Public Works Date
City of Opelika

*Note: The acceptance of this plan review does not represent a permit for building construction. The permit for construction must be obtained separately from the Opelika Building Permits office.





Land Disturbance Permit
Site Plan Review and Notice to Proceed

Opelika Engineering and Public Works Department
700 Fox Trail, Opelika, AL 36801
(334) 705-5150, (334) 705-5400

PART I. SITE INFORMATION:

JOB NAME: Golden State Foods Processing OWNER: Golden State Foods
LOCATION: 4801 Northpark Drive CONTACT:
ARCHITECT/CONTRACTOR: Goodwyn, Mills and Cawood--Cedric Campbell
ADDRESS: 2660 East Chase Lane, Suite 200, Montgomery, AL 36117
PHONE: 334-271-3200

TYPE OF WORK: [] COMMERCIAL [x] INDUSTRIAL [] PUBLIC SUBDIVISION
AREA OF DISTURBANCE: [] < 5 ACRE [] 5 ACRES TO 10 ACRES
[] 10 ACRES TO 25 ACRES [x] 25 ACRES TO 50 ACRES [] 50 ACRES TO 75 ACRES
[] 75 ACRES TO 100 ACRES [] GREATER THAN 100 ACRES

[] LAND DISTURBANCE FEE REQUIRED: \$ 0.00--Abated

PART II. PLANS REVIEWED FOR:

- [x] Storm Drain System [x] Sanitary Sewer System [] Utilities
[x] Erosion Sediment Control Plan [x] Post Construction Storm Water
[x] Access Management Spacing [x] Roadway Alignment and build-up

Note: a recordable flow meter MUST be installed on Sewer Discharge Line
7-16-15 [Signature]

PART III. APPROVAL and NOTICE TO PROCEED:

[] Approved as Submitted [x] Approved Subject to Conditions [] Not Approved

COMMENTS: If the Land Disturbance Fee has been paid, the signatures below signify a notice to proceed with the development. All communications and coordination with the proper departments and utilities are required.

[Signature] July 13, 2015
City Engineer Date
City of Opelika

[Signature] 7-16-15
Director of Public Works Date
City of Opelika

*Note: The acceptance of this plan review does not represent a permit for building construction. The permit for construction must be obtained separately from the Opelika Building Permits office.



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Land Disturbance Permit
Site Plan Review and Notice to Proceed

Opelika Engineering and Public Works Department
700 Fox Trail, Opelika, AL 36801
(334) 705-5150, (334) 705-5400

PART I. SITE INFORMATION:

JOB NAME: LE Energy OWNER: PCH Investments
LOCATION: 2680 Corporate Park Drive CONTACT: Cliff Hare--334-332-3294
ARCHITECT/CONTRACTOR: Harmon Engineering--Alan Tucker
ADDRESS: 13367 C.L. Torbert Jr. Parkway--LaFayette, AL 36862
PHONE: 334-864-9135

TYPE OF WORK: [X] COMMERCIAL [] INDUSTRIAL [] PUBLIC SUBDIVISION
AREA OF DISTURBANCE: [X] < 5 ACRE [] 5 ACRES TO 10 ACRES
[] 10 ACRES TO 25 ACRES [] 25 ACRES TO 50 ACRES [] 50 ACRES TO 75 ACRES
[] 75 ACRES TO 100 ACRES [] GREATER THAN 100 ACRES

[X] LAND DISTURBANCE FEE REQUIRED: \$ 60.00--Paid Check No. 11104

PART II. PLANS REVIEWED FOR:

[X] Storm Drain System [X] Sanitary Sewer System [] Utilities
[X] Erosion Sediment Control Plan [X] Post Construction Storm Water
[X] Access Management Spacing [X] Roadway Alignment and build-up

PART III. APPROVAL and NOTICE TO PROCEED:

[X] Approved as Submitted [] Approved Subject to Conditions [] Not Approved

COMMENTS: If the Land Disturbance Fee has been paid, the signatures below signify a notice to proceed with the development. All communications and coordination with the proper departments and utilities are required.

[Signature] 7/13/2015
City Engineer Date
City of Opelika

[Signature] 7-13-2015
Director of Public Works Date
City of Opelika

*Note: The acceptance of this plan review does not represent a permit for building construction. The permit for construction must be obtained separately from the Opelika Building Permits office.





Land Disturbance Permit
Site Plan Review and Notice to Proceed

Opelika Engineering and Public Works Department
700 Fox Trail, Opelika, AL 36801
(334) 705-5150, (334) 705-5400

PART I. SITE INFORMATION:

JOB NAME: Mingledorffs OWNER: Lavista Associates, Inc.
LOCATION: 2295 1st Avenue CONTACT: Arthur L. Murray--770-729-2839
ARCHITECT/CONTRACTOR: Harmon Engineering--Brian Lee
ADDRESS: 13667 C.L. Torbert, Jr. Parkway, Lafayette, AL 36862
PHONE: 334-864-9135

TYPE OF WORK: [X] COMMERCIAL [] INDUSTRIAL [] PUBLIC SUBDIVISION
AREA OF DISTURBANCE: [X] < 5 ACRE [] 5 ACRES TO 10 ACRES
[] 10 ACRES TO 25 ACRES [] 25 ACRES TO 50 ACRES [] 50 ACRES TO 75 ACRES
[] 75 ACRES TO 100 ACRES [] GREATER THAN 100 ACRES

[X] LAND DISTURBANCE FEE REQUIRED: \$ 60.00--Paid Ck No. 12278

PART II. PLANS REVIEWED FOR:

[X] Storm Drain System [X] Sanitary Sewer System [] Utilities
[X] Erosion Sediment Control Plan [X] Post Construction Storm Water
[X] Access Management Spacing [] Roadway Alignment and build-up

PART III. APPROVAL and NOTICE TO PROCEED:

[X] Approved as Submitted [] Approved Subject to Conditions [] Not Approved

COMMENTS: If the Land Disturbance Fee has been paid, the signatures below signify a notice to proceed with the development. All communications and coordination with the proper departments and utilities are required.

[Signature] 3/8/2016
City Engineer Date
City of Opelika

[Signature] 3-8-2016
Director of Public Works Date
City of Opelika

*Note: The acceptance of this plan review does not represent a permit for building construction. The permit for construction must be obtained separately from the Opelika Building Permits office.

ESG



Land Disturbance Permit
Site Plan Review and Notice to Proceed

Opelika Engineering and Public Works Department
700 Fox Trail, Opelika, AL 36801
(334) 705-5150, (334) 705-5400

PART I. SITE INFORMATION:

JOB NAME: CTC Commercial Tire and Service OWNER: River City Contracting
LOCATION: 304 Williamson Avenue CONTACT: Todd Ammerman
ARCHITECT/CONTRACTOR: Barrett Simpson--Chris Rogers
ADDRESS: 706 12th Street Phenix City AL 36867
PHONE: 334-297-2423

TYPE OF WORK: [X] COMMERCIAL [] INDUSTRIAL [] PUBLIC SUBDIVISION
AREA OF DISTURBANCE: [X] < 5 ACRE [] 5 ACRES TO 10 ACRES
[] 10 ACRES TO 25 ACRES [] 25 ACRES TO 50 ACRES [] 50 ACRES TO 75 ACRES
[] 75 ACRES TO 100 ACRES [] GREATER THAN 100 ACRES

[X] LAND DISTURBANCE FEE REQUIRED: \$ 60.00 paid ck # 507

PART II. PLANS REVIEWED FOR:

- [X] Storm Drain System [X] Sanitary Sewer System [X] Utilities
[X] Erosion Sediment Control Plan [X] Post Construction Storm Water
[X] Access Management Spacing [X] Roadway Alignment and build-up

PART III. APPROVAL and NOTICE TO PROCEED:

[] Approved as Submitted [X] Approved Subject to Conditions [] Not Approved

COMMENTS: If the Land Disturbance Fee has been paid, the signatures below signify a notice to proceed with the development. All communications and coordination with the proper departments and utilities are required.

[Signature] 8/26/15
City Engineer Date
City of Opelika

[Signature] 8-26-15
Director of Public Works Date
City of Opelika

*Note: The acceptance of this plan review does not represent a permit for building construction. The permit for construction must be obtained separately from the Opelika Building Permits office.



Proudly Serving the City of Opelika



Land Disturbance Permit
Site Plan Review and Notice to Proceed

Opelika Engineering and Public Works Department
700 Fox Trail, Opelika, AL 36801
(334) 705-5150, (334) 705-5400

PART I. SITE INFORMATION:

JOB NAME: South Uniroyal Road Dirt Pit OWNER: John M. Dudley
LOCATION: 3800 block of South Uniroyal Road CONTACT: Jerry Schwarzauer
ARCHITECT/CONTRACTOR: Barrett-Simpson - Chris Rogers
ADDRESS: 706 12th Street, Phenix City, AL 36867
PHONE: 334-297-2423

TYPE OF WORK: [X] COMMERCIAL [] INDUSTRIAL [] PUBLIC SUBDIVISION
AREA OF DISTURBANCE: [X] < 5 ACRE [] 5 ACRES TO 10 ACRES
[] 10 ACRES TO 25 ACRES [] 25 ACRES TO 50 ACRES [] 50 ACRES TO 75 ACRES
[] 75 ACRES TO 100 ACRES [] GREATER THAN 100 ACRES

[X] LAND DISTURBANCE FEE REQUIRED: \$ 60.00 Paid check 43277

PART II. PLANS REVIEWED FOR:

[] Storm Drain System [] Sanitary Sewer System [] Utilities
[X] Erosion Sediment Control Plan [] Post Construction Storm Water
[] Access Management Spacing [] Roadway Alignment and build-up

PART III. APPROVAL and NOTICE TO PROCEED:

[X] Approved as Submitted [] Approved Subject to Conditions [] Not Approved

COMMENTS: If the Land Disturbance Fee has been paid, the signatures below signify a notice to proceed with the development. All communications and coordination with the proper departments and utilities are required.

City Engineer Date 9/18/2015 City of Opelika
Director of Public Works Date N/A City of Opelika

*Note: The acceptance of this plan review does not represent a permit for building construction. The permit for construction must be obtained separately from the Opelika Building Permits office.





Land Disturbance Permit
Site Plan Review and Notice to Proceed

Opelika Engineering and Public Works Department
700 Fox Trail, Opelika, AL 36801
(334) 705-5150, (334) 705-5400

PART I. SITE INFORMATION:

JOB NAME: Shiloh Development OWNER: The Bennett Group
LOCATION: 1600 block of Century Blvd CONTACT: Fred Bennett 334-321-0159
ARCHITECT/CONTRACTOR: Barrett-Simpson, Inc--Blake Rice
ADDRESS: 223 S. 9th Street, Opelika, AL 36801
PHONE: 334-745-7026

TYPE OF WORK: [] COMMERCIAL [] INDUSTRIAL [x] PRIVATE PUBLIC SUBDIVISION
AREA OF DISTURBANCE: [] < 5 ACRE [] 5 ACRES TO 10 ACRES
[] 10 ACRES TO 25 ACRES [] 25 ACRES TO 50 ACRES [] 50 ACRES TO 75 ACRES
[] 75 ACRES TO 100 ACRES [] GREATER THAN 100 ACRES

[x] LAND DISTURBANCE FEE REQUIRED: \$ 120.00 Paid Ck No. 4139

PART II. PLANS REVIEWED FOR:

[x] Storm Drain System [x] Sanitary Sewer System [] Utilities
[x] Erosion Sediment Control Plan [x] Post Construction Storm Water
[x] Access Management Spacing [] Roadway Alignment and build-up

Sewer Private off Century Blvd.

PART III. APPROVAL and NOTICE TO PROCEED:

[] Approved as Submitted [x] Approved Subject to Conditions [] Not Approved

COMMENTS: If the Land Disturbance Fee has been paid, the signatures below signify a notice to proceed with the development. All communications and coordination with the proper departments and utilities are required.

[Signature] 9/10/15
City Engineer Date
City of Opelika

[Signature] 9-10-15
Director of Public Works Date
City of Opelika

*Note: The acceptance of this plan review does not represent a permit for building construction. The permit for construction must be obtained separately from the Opelika Building Permits office.



Proudly Serving the City of Opelika



Land Disturbance Permit
Site Plan Review and Notice to Proceed

Opelika Engineering and Public Works Department
700 Fox Trail, Opelika, AL 36801
(334) 705-5150, (334) 705-5400

PART I. SITE INFORMATION:

JOB NAME: Verizon Wireless Monopole OWNER: Verizon Wireless
LOCATION: 20 Veterans Parkway CONTACT: Emanuel Adegoke
ARCHITECT/CONTRACTOR: Allcom Wireless--Bobby Abernathy
ADDRESS:
PHONE: 205-641-2966

TYPE OF WORK: [X] COMMERCIAL [] INDUSTRIAL [] PUBLIC SUBDIVISION
AREA OF DISTURBANCE: [X] < 5 ACRE [] 5 ACRES TO 10 ACRES
[] 10 ACRES TO 25 ACRES [] 25 ACRES TO 50 ACRES [] 50 ACRES TO 75 ACRES
[] 75 ACRES TO 100 ACRES [] GREATER THAN 100 ACRES

[X] LAND DISTURBANCE FEE REQUIRED: \$ 60.00 Paid Ck #507

PART II. PLANS REVIEWED FOR:

[X] Storm Drain System [] Sanitary Sewer System [] Utilities
[X] Erosion Sediment Control Plan [] Post Construction Storm Water
[X] Access Management Spacing [] Roadway Alignment and build-up

PART III. APPROVAL and NOTICE TO PROCEED:

[X] Approved as Submitted [] Approved Subject to Conditions [] Not Approved

COMMENTS: If the Land Disturbance Fee has been paid, the signatures below signify a notice to proceed with the development. All communications and coordination with the proper departments and utilities are required.

City Engineer Date
City of Opelika

Director of Public Works Date
City of Opelika

*Note: The acceptance of this plan review does not represent a permit for building construction. The permit for construction must be obtained separately from the Opelika Building Permits office.



Proudly Serving the City of Opelika



Land Disturbance Permit
Site Plan Review and Notice to Proceed

Opelika Engineering and Public Works Department
700 Fox Trail, Opelika, AL 36801
(334) 705-5150, (334) 705-5400

PART I. SITE INFORMATION:

JOB NAME: Clearing for mini warehouses OWNER: Steve Kennon
LOCATION: 3155 Society Hill Road CONTACT: 706-681-1666
ARCHITECT/CONTRACTOR: Barrett-Simpson--Blake Rice
ADDRESS: 223 S. 9th Street Opelika, AL 36801
PHONE: 334-745-7026

TYPE OF WORK: [X] COMMERCIAL [] INDUSTRIAL [] PUBLIC SUBDIVISION

AREA OF DISTURBANCE: [] < 5 ACRE [X] 5 ACRES TO 10 ACRES
[] 10 ACRES TO 25 ACRES [] 25 ACRES TO 50 ACRES [] 50 ACRES TO 75 ACRES
[] 75 ACRES TO 100 ACRES [] GREATER THAN 100 ACRES

[X] LAND DISTURBANCE FEE REQUIRED: \$ 90.00--Paid (\$120) Ck No. 16529

PART II. PLANS REVIEWED FOR:

- [] Storm Drain System [] Sanitary Sewer System [] Utilities
[X] Erosion Sediment Control Plan [] Post Construction Storm Water
[] Access Management Spacing [] Roadway Alignment and build-up

* Plan is for Land Disturbance only. Public Works will need to sign off for Site Plan Approval

PART III. APPROVAL and NOTICE TO PROCEED:

[] Approved as Submitted [X] Approved Subject to Conditions [] Not Approved

COMMENTS: If the Land Disturbance Fee has been paid, the signatures below signify a notice to proceed with the development. All communications and coordination with the proper departments and utilities are required.

[Signature] 9/30/15
City Engineer Date
City of Opelika

Not required--see comment above
Director of Public Works Date
City of Opelika

*Note: The acceptance of this plan review does not represent a permit for building construction. The permit for construction must be obtained separately from the Opelika Building Permits office.



Proudly Serving the City of Opelika



Land Disturbance Permit
~~Site Plan Review and Notice to Proceed~~

Opelika Engineering and Public Works Department
700 Fox Trail, Opelika, AL 36801
(334) 705-5150, (334) 705-5400

PART I. SITE INFORMATION:

JOB NAME: Clearing and grubbing off US 280 OWNER: Chapman H, LLC
LOCATION: 2600-3000 Birmingham Highway CONTACT:
ARCHITECT/CONTRACTOR: Barrett-Simpson--Blake Rice
ADDRESS: 223 S. 9th Street Opelika, AL 36801
PHONE: 334-745-7026

TYPE OF WORK: COMMERCIAL INDUSTRIAL PUBLIC SUBDIVISION
AREA OF DISTURBANCE: < 5 ACRE 5 ACRES TO 10 ACRES
 10 ACRES TO 25 ACRES 25 ACRES TO 50 ACRES 50 ACRES TO 75 ACRES
 75 ACRES TO 100 ACRES GREATER THAN 100 ACRES

LAND DISTURBANCE FEE REQUIRED: \$ 120.00 PAID Ck #1490

PART II. PLANS REVIEWED FOR:

Storm Drain System Sanitary Sewer System Utilities
 Erosion Sediment Control Plan Post Construction Storm Water
 Access Management Spacing Roadway Alignment and build-up

* Plan is for Land Disturbance only. Public Works will need to sign off for Site Plan Approval

PART III. APPROVAL and NOTICE TO PROCEED:

Approved as Submitted Approved Subject to Conditions Not Approved

COMMENTS: If the Land Disturbance Fee has been paid, the signatures below signify a notice to proceed with the development. All communications and coordination with the proper departments and utilities are required.

 9/30/15

City Engineer Date
City of Opelika

Not required--see comment above

Director of Public Works Date
City of Opelika

***Note:** The acceptance of this plan review does not represent a permit for building construction. The permit for construction must be obtained separately from the Opelika Building Permits office.





Land Disturbance Permit

Opelika Engineering and Public Works Department
700 Fox Trail, Opelika, AL 36801
(334) 705-5150, (334) 705-5400

PART I. SITE INFORMATION:

JOB NAME: Pharmavite Parking Lot Expansion OWNER: Pharmavite LLC

LOCATION: 4701 Northpark Drive CONTACT: Welsy Wells

ARCHITECT/CONTRACTOR:

ADDRESS: Same

PHONE: 818-963-0740

TYPE OF WORK: COMMERCIAL INDUSTRIAL PUBLIC SUBDIVISION

AREA OF DISTURBANCE: < 5 ACRE 5 ACRES TO 10 ACRES

10 ACRES TO 25 ACRES 25 ACRES TO 50 ACRES 50 ACRES TO 75 ACRES

75 ACRES TO 100 ACRES GREATER THAN 100 ACRES

LAND DISTURBANCE FEE REQUIRED: \$ 60.00 Paid Check #

PART II. PLANS REVIEWED FOR:

Pass	Storm Drain System	N/A	Sanitary Sewer System	N/A	Utilities
Pass	Erosion Sediment Control Plan	N/A	Post Construction Storm Water		
N/A	Access Management Spacing	N/A	Roadway Alignment and build-up		

PART III. APPROVAL and NOTICE TO PROCEED:

Approved as Submitted Approved Subject to Conditions Not Approved

COMMENTS: If the Land Disturbance Fee has been paid, the signatures below signify a notice to proceed with the development. All communications and coordination with the proper departments and utilities are required.

12/16/2015

City Engineer Date
City of Opelika

Not required for Land Disturbance

Director of Public Works Date
City of Opelika

***Note:** The acceptance of this plan review does not represent a permit for building construction. The permit for construction must be obtained separately from the Opelika Building Permits office.



Proudly Serving the City of Opelika



**Land Disturbance Permit
Site Plan Review and Notice to Proceed**

Opelika Engineering and Public Works Department
700 Fox Trail, Opelika, AL 36801
(334) 705-5150, (334) 705-5400

PART I. SITE INFORMATION:

JOB NAME: Saugahatchee Square (west) OWNER: Fimiani Development Co
LOCATION: 3794 Pepperell Parkway CONTACT: Mike Finiani 561-395-8882
ARCHITECT/CONTRACTOR: Pinnacle Design Group-David Slocum, P.E.
ADDRESS: 570 Devall Drive, Suite 303 Auburn, AL 36832
PHONE: 334-703-8860

TYPE OF WORK: COMMERCIAL INDUSTRIAL PUBLIC SUBDIVISION
AREA OF DISTURBANCE: < 5 ACRE 5 ACRES TO 10 ACRES
 10 ACRES TO 25 ACRES 25 ACRES TO 50 ACRES 50 ACRES TO 75 ACRES
 75 ACRES TO 100 ACRES GREATER THAN 100 ACRES

LAND DISTURBANCE FEE REQUIRED: \$ \$120.00 Paid Check No. 0248

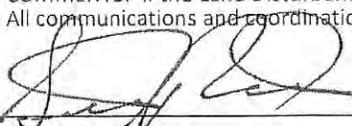
PART II. PLANS REVIEWED FOR:

Storm Drain System Sanitary Sewer System Utilities
 Erosion Sediment Control Plan Post Construction Storm Water
 Access Management Spacing Roadway Alignment and build-up

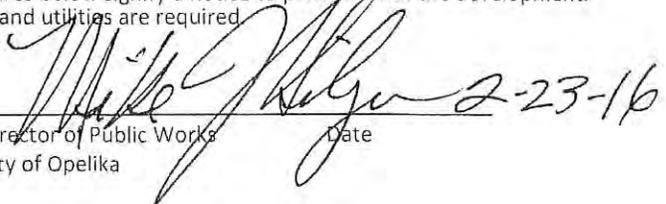
PART III. APPROVAL and NOTICE TO PROCEED:

Approved as Submitted Approved Subject to Conditions Not Approved

COMMENTS: If the Land Disturbance Fee has been paid, the signatures below signify a notice to proceed with the development. All communications and coordination with the proper departments and utilities are required.

 2/23/2016

City Engineer Date
City of Opelika

 2-23-16

Director of Public Works Date
City of Opelika

***Note:** The acceptance of this plan review does not represent a permit for building construction. The permit for construction must be obtained separately from the Opelika Building Permits office.



Proudly Serving the City of Opelika



**Land Disturbance Permit
Site Plan Review and Notice to Proceed**

Opelika Engineering and Public Works Department
700 Fox Trail, Opelika, AL 36801
(334) 705-5150, (334) 705-5400

PART I. SITE INFORMATION:

JOB NAME: The Village at Hamilton Lake OWNER: VADA LLC
LOCATION: Stonybrook Piont CONTACT: Rob Dibenedetto--334-332-8105
ARCHITECT/CONTRACTOR: Pinnacle Design Group--David Slocum, P.E.
ADDRESS: 570 Deyall Drive, Suite 303
PHONE: 334-703-8860

TYPE OF WORK: COMMERCIAL INDUSTRIAL PUBLIC SUBDIVISION
AREA OF DISTURBANCE: < 5 ACRE 5 ACRES TO 10 ACRES
 10 ACRES TO 25 ACRES 25 ACRES TO 50 ACRES 50 ACRES TO 75 ACRES
 75 ACRES TO 100 ACRES GREATER THAN 100 ACRES

LAND DISTURBANCE FEE REQUIRED: \$ 120.00

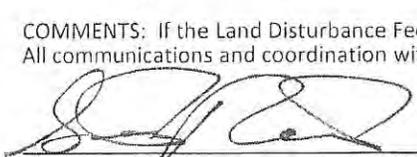
PART II. PLANS REVIEWED FOR:

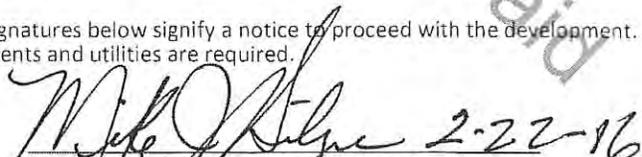
Storm Drain System Sanitary Sewer System Utilities
 Erosion Sediment Control Plan Post Construction Storm Water
 Access Management Spacing Roadway Alignment and build-up

PART III. APPROVAL and NOTICE TO PROCEED:

Approved as Submitted Approved Subject to Conditions Not Approved

COMMENTS: If the Land Disturbance Fee has been paid, the signatures below signify a notice to proceed with the development. All communications and coordination with the proper departments and utilities are required.

 2/22/16
City Engineer Date
City of Opelika

 2-22-16
Director of Public Works Date
City of Opelika

***Note:** The acceptance of this plan review does not represent a permit for building construction. The permit for construction must be obtained separately from the Opelika Building Permits office.





D4. Building Inspection Annual Report

Fiscal Year End Report - 2015

Building Repairs	Commercial	Residential
Buildings Condemned	0	5
Buildings Demolished	1	17
Building Repairs	57	60
Plumbing Upgrades	26	62
Electrical Upgrades	46	111
Mechanical Upgrades	39	34
Reroofs And Roof Repairs	17	43
Mobile Home Services	0	1
Building Additions/Accessory Structures	0	89

Yearly Totals For Oct. 1st - Sept. 30th	
2006	\$156,630,888.00
2007	\$129,263,598.00
2008	\$127,407,288.00
2009	\$67,359,271.00
2010	\$96,662,342.00
2011	\$45,352,237.00
2012	\$178,221,004.00
2013	\$61,881,917.00
2014	\$79,409,560.00
2015	\$192,080,600.00

INSPECTION REQUEST TOTAL	4,596
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30	New Buildings: Commercial	\$105,231,989.00
85	Commercial Renovations And Repairs	\$13,641,552.00
36	Signs	\$270,435.00
154	New Single Family Homes	\$36,071,178.00
225	Residential Repairs And Renovations	\$2,881,005.00
0	New Apartment Units	\$0.00
0	New Duplex Residences	\$0.00
530	Total Building Permits Issued	\$158,096,159.00

313	Electrical Permits	\$10,516,535.00
256	Plumbing Permits	\$11,327,716.00
227	HVAC Permits	\$12,140,190.00

1,326	Permit Total Issued for FY 2015	\$192,080,600.00
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D5. Enforcement Actions and Reports



JOB SITE

ADEM & YOUR PERMIT REQUIRED ACTIONS:

BMP's

BMP are minimum treatments.

ADDITIONAL BMPs may be needed to achieve proper capture of pollutants

WHAT WE INSPECT

1. INSTALL RAIN GUAGE AND ADEM I.D. PERMIT VISIBLY
2. CONSTRUCTION EXIT PAD. (# 1. STONE UNDERLAIN WITH GEO TEXTILE) 20 X 50, 6" THICK.
3. PERMIMETER EROSION CONTROL, SILT FENCE, Trenched in.
4. STORMWATER MANAGEMENT INLET DEVICES PROTCTED, ALL INLETS!
5. NON-WOVEN GEOTEXTILE FABRIC UNDERNEATH ALL RIP-RAP STONE AT INLET/OUTLETS
6. DO NOT place port-o-let over storm drains
7. ESTABLISH AN APPROVED CONCRETE WASH-OUT AREA/DEVICE

8. EXPOSED AREAS FOR MORE THAN 13 DAYS MUST HAVE TEMPORARY SEEDING & MULCH!
9. 3:1 OR STEEPER SLOPES MUST HAVE EROSION CONTROL BLANKES AS PER ENGINEER'S PLAN.
10. INSPECT EROSION CONTROL MEASURES AND DOCUMENT IN AN "ON THE JOB" BINDER.
11. INSPECT AND RECORD EROSION CONTROL DEVICES AFTER A ¼ INCH RAIN.
12. CORRECT DAILY ANY FAILING EROSION CONTROL DEVICES.
13. REMOVE TRACKED SEDIMENT FROM ROAD-WAY THAT LEAVES THE SITE – sweep only

UNDERSTOOD THAT ANY FAILURE TO INSTALL, MAINATIN OR OPERATE ALL EROSION CONTROL MEASURE WILL RESULT IN CONSTRUCTION BEING STOPPED ON THE PROJECT UNTIL ALL MEAURES ARE CORECTED IN ACCORDANCE WITH YOUR PLANS AND SPECS.

14. MAINTAIN ALL BMPs FOR THE LIFE OF THE PROJECT AS PERMITTED!
15. RECALIM ALL WORKED AREAS WITH PERMANENT, PERENEIAL VEGETATON

You can't expect what you don't inspect

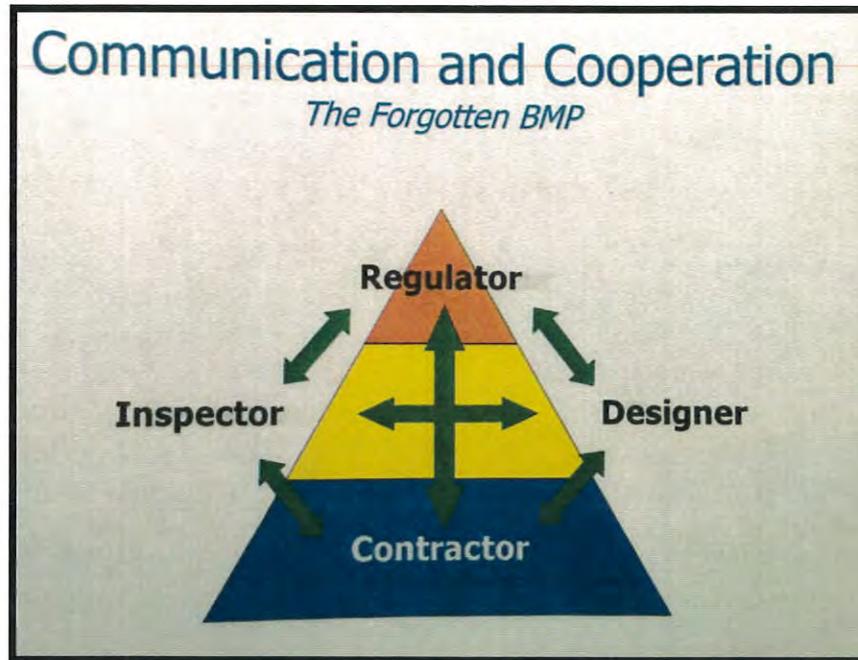
CITY OF OPELIKA STORMWATER DEPARTMENT

OPELIKA INSPECTS YOUR SITE
ADEM INSPECTS OPELIKA
EPA INSPECTS ADEM
Cheaper to do it right one time!

JUST DO IT



334-705-5454



Common problems identified during inspection

ADEM permit not displayed/rain gauge
Failure to record precipitation data
Failure to seed and mulch areas not worked in 13 days
BMPs improperly installed
Failure to clean out silt fences/sediment basins
BMPs not maintained properly
Fuel/chemicals stored improperly
Inadequate outlet stabilization and energy dissipation
Improper concrete wash-out area
Final stabilization

[Contractor must be knowledgeable and willing to take proper steps.](#)

OPELIKA INSPECTS YOUR SITE
ADEM INSPECTS OPELIKA
EPA INSPECTS ADEM
Cheaper to do it right one time!
JUST DO IT



E. Construction Site Storm Water Runoff Control - Post BMPs

Appendix E POST BMPs

3/10/2016

POST-CONSTRUCTION MAINTENANCE BMP'S

Bio Retention Areas
Buffer Zones
Chemical Handling Facility
Dust Control
Riprap Flumes
Riprap Structures
Rock Chutes
Roof Runoff Structures
Sod
Sediment Basins
Shallow Water Developments
Spring Developments
Storm water Runoff Control
Bridge and all components
Streambank and Shoreline Protection
Structures for Wildlife
Subsurface Drains
Terraces
Trails and Walkways
Tree/Shrub Pruning
Underground Outlets
Vegetated Filters
Waste Storage Facility
Structures
Fences
Wastewater Treatment Strips
Water and Sediment Control Basins
Water Harvesting Catchment
Water Wells
Wetland Wildlife Habitat Management
Irrigation Water Management
Toxic Discharge Control
Lined Swales
Litter Management
Preservation of Vegetation
LID strategies
Emergency Response Plan

Structural & Non-structural items

Pond-Shallow Water Reservoirs
Retention/Detention Basins
Prescribed Burning
Pumping Plants
Retaining Walls & weep drains
Recreation Areas
Firebreaks
Grazing Systems
Fuel Breaks
Grass Swale
Grade Stabilization Structures
Grassed Waterways
Heavy Use Area Protection
Hedgerow Planting
Irrigation Systems
Filter Strips
Storm Debris
Composting
Buffer Strips
Critical Area Planting
Cultural Resources Identification
Diversions or Dikes
Discharge Pipe Drop Structures
Drainage Water Management
Erosion and Sediment Control
Fabric Drop Inlets
Floating Turbidity Barriers
Freeze-Proof Water Supply
Nutrient Management - Nitrogen
Nutrient Management - Phosphorus
Brush Management
Grade Stabilization Structure
Grounds Keeping
Vegetation Plan
Accidental Discharge
Green Infrastructure
Porous pavement

_____/_____/20____

City Engineer, Opelika, Alabama 38801
334-705-5450

Opelika Storm water coordinator's office can provide a site and plan review as your partner.

This agreement to annually inspect and maintain post-construction BMP's, named or un-named above, is a requirement for annual business license renewal by the City of Opelika. The developer-owner-operator is required to submit said annual inspection to Opelika Engineering Department each year and keep a file of post-construction inspection records. Until the annual inspection is submitted to City engineer or Storm water division (Ord. No. 107-14 & 1,3-18-14) a business license will not be issued.



Notice of Violation Ledger

CITY OF OPELIKA

DATE	PERMIT #	NAME	LOCATION	DATE OF CORROSPONDANCE	PHONE	ISSUES	DATE RESOLVED
11/24/2015		Tiger Square	Fedrick & Corporate	11/24/2015	Ed Whatley	silt fence & Veg	11-25-15 Check back for veg Fence repaired
11/24/2015		LE Energy	Corporate Dr	11/24/2015	Hudmorn	silt,silt fence & inlet	12/8/15 mulched/floc log
11/30/2015		farmers Market	1st Ave	1-Dec	Mitch NIX	silt, vege, no hood covers	
12/1/2015		king Honda	Hwy 280	12/2/2015	Dave king	vege	mulch is on
12/7/2015		Wynndham Gates	society Hill Rd	12/7/2015	John Fuller	slope vege	mats are laid on slopes
12/14/2015		Oral facial	Corpraet Drive	12/14/2015	David Hudmon	car on job site	MGT KEEPING CARS OFF SITE
12/17/2015		Precision tune	Parkway	12/17/2015	Clayton elmore	oil cleandre down drain	
12/18/2015		Cannon	Parkway	12/18/2015	Mr cannon	dump	to Tippit N Scott
12/18/2015		Aneet schanzes	704 8th ave	12/21/2015	yes12/28/15	lot disturbance	askdd for help: is moving
12/18/2015		sauga SQU	Pepprell Pkwy	12/21/2015	Marg. 319-7870	silt fence, mulch	seeded and mulched 12/23/15
12/22/2015		Southern Union	east campus			off site sediment	
12/16/2015		Estate homeowner	Academy Dr	12/16/2015	Jeff Kappleman	4 breaches	Y

Construction Site Inspection Records

SITE NAME	DATE	NEW	FOLLOW UP	location
GAMBRO	10/13/2015	N	Y	
Wyndham Gates II	10/13/2015	N	Y	
PACES II	10/13/2015	N	Y	
TIGER SQUARE	10/13/2015	N	Y	
L E ENERGY	10/13/2015	N	Y	
ORAL FACIAL	10/13/2015	N	Y	
FOOD COURT	10/13/2015	N	Y	
280 EAGLE GAS	10/13/2015	N	Y	
CTC TIRE	10/13/2015	N	Y	
MILL LAKES	10/21/2015	Y	-	
CTC TIRE	10/22/2015	N	Y	
Wyndham Gates II	10/22/2015	N	Y	
ORAL FACIAL	10/22/2015	N	N	
LE ENERGY	10/22/2015	N	N	
Wyndham Gates II	10/22/2015	N	Y	
CTC TIRE	10/28/2015	N	Y	
MILL LAKES	10/30/2015	Y	Y	
ORAL FACIAL	11/2/2015	N	Y	
PACES II	11/2/2015	N	Y	
WYNAHAM GATES II	11/2/2015	N	Y	
WYNAHAM GATES II	11/3/2015	N	Y	
WYNAHAM GATES II	11/6/2015	N	Y	
WYNAHAM GATES II	11/9/2015	N	Y	
ORAL FACIAL	11/9/2015	N	Y	
L E ENERGY	11/9/2015	N	Y	
GAMBRO	11/12/2015	N	Y	
KING HONDA	11/13/2015	N	Y	
L E ENERGY	11/13/2015	N	Y	
ORAL FACIAL	11/13/2015	N	Y	
SOCIETY HILL STORAGE	11/13/2015	Y	N	
KING HONDA	11/16/2015	N	Y	
WYNDHAM GATES II	11/17/2015	N	Y	
TIGER SQUARE	11/18/2015	N	Y	
PACES II	11/18/2015	N	Y	
WYNDHAM GATES II	11/18/2015	N	Y	
MILL LAKES	11/18/2015	N	Y	
TIGER SQUARE	11/19/2015	N	Y	
ORAL FACIAL	11/20/2015	N	Y	
TIGER SQUARE	11/20/2015	N	Y	
TIGER SQUARE	11/23/2015	N	Y	
P1 capps	11/23/2015	P		202
P2 hamilton	11/23/2015	P		202
P3 bent creek	11/23/2015	P		202
280 EAGLE GAS	11/23/2015	N	Y	
SOCIETY HILL STORAGE	11/23/2015	Y	Y	
King Honda	11/24/2015	n	y	

Tiger square	11/24/2015	n	y	
L E Energy	11/24/2015	n	y	
WYNDAHM GATES II	11/24/2015	n	y	
Wyndham Gates II	11/25/2015	n	y	
L E ENERGY	11/25/2015	n	y	
TIGER SQUARE	11/25/2015	n	y	
Oral Facial	11/30/2015	n	y	
LE Energy	11/30/2015	n	y	
Tiger Square	11/30/2015	n	y	
Farmers Market	11/30/2015	y	n	
LE Energy	12/1/2015	n	y	
Facial Oral	12/1/2015	n	y	
KING HONDA	12/1/2015	n	y	
king honda	12/2/2015	n	y	
chem bent	11/25/2015	c		202
chem hamilton	11/25/2015	c		202
chem capps	11/25/2015	c		202
Biological thom	11/24/2015	b		102
Biological ball	11/24/2015	b		102
Biological waverly	11/24/2015	b		192
Tiger square	12/3/2015	n	y	
KING HONDA	12/3/2015			
LE ENERGY	12/3/2015			
Farmers Market	12/3/2015			
Farmers Market	12/4/2015	n	y	
TIGER SQUARE	12/4/2015	n	y	
SOCIETY HILL STORAGE	12/4/2015	n	y	
King Honda	12/4/2015	n	y	
KING HONDA	12/8/2015	n	y	
Parkway Market	12/8/2018	n	y	
L E Energy	12/8/2015	n	y	
Wyndham Gates II	12/7/2015	n	y	
MILL LAKES	12/9/2015	N	Y	
TIGER SQUARE	12/14/2015	n	y	
L E ENERGY	12/14/2015	n	y	
ORAL FACIAL	12/14/2015	n	y	
Wyndham Gates II	12/15/2015	n	y	
KING HONDA	12/15/2015	n	y	
Parkway Market	12/15/2015	n	y	
SOCIETY HILL STORAGE	12/15/2015	n	y	
PACES II	12/16/2015	n	y	
LE ENERGY	12/17/2015	n	y	
ORAL FACIAL	12/17/2015	n	y	
KING HONDA	12/17/2015	n	y	
saugahatchee sq	12/22/2015	n	y	
Tiger Squstre	12/22/2015	n	Y	
L E ENERGY	12/22/2015	N	Y	

ORAL FACIAL	12/22/2015	N	Y
Southern union	12/22/2015	y	Y
GAMBRO	12/22/2015	n	Y
SOCIETY HILL STORAGE	12/22/2015	n	Y
L E ENERGY	12/23/2015	n	Y
ORAL FACIAL	12/23/2015	n	Y
saugahatchee sq	12/23/2015	n	Y
Dan Kennefick	12/23/2015	y	Y
Dan Kennefick	12/28/2015	n	Y
King Honda	12/28/2015	n	Y
Stone martin	12/28/2015	y	Y
Parkway Market	12/28/2015	n	Y
Stoen martin	12/29/2015	n	Y
parkway market	12/29/2015	n	Y
Paces II	12/29/2015	n	Y
Estates 5	12/29/2015	n	Y
saugahatchee sq	12/30/2015	n	Y
L E ENERGY	12/20/2015	n	Y
ORAL FACIAL	12/30/2015	n	Y

SITE NAME	DATE	NEW	FOLLOW UP	LOCATION
Parkway Farmers Market	1/4/2016	n	y	1st
Southern Union	1/4/2016	n	y	campus
city 100 vaughn ave	1/4/2016	n	y	100 Vaughn ave
stone martin	1/4/2016	n	y	preston
700 8th ave.	1/4/2016	n	y	8th ave
Stone Martin	1/4/2016	n	y	vege
Society Hill Storage	1/4/2016	n	y	idle
280 eagle	1/5/2016	n	y	280
Wyndham Gates II	1/5/2016	n	y	280
CTC tire	1/5/2016	n	y	
Parkway Market	1/5/2016	n	y	1st
100 Vaughn	1/5/2016	n	y	vaughn
Lee Co Fair assn	1/5/2016	n	y	431
Sanders Creek	1/5/2016	n	y	sander creek sub
100 Vaughn	1/6/2016	n	y	vaughn 102
parkman market	1/6/2016	n	y	1st st
vaughn	1/8/2016	n	y	100
MOB 3	1/8/2016	Y	y	Proff dr
Saucier industry	1/8/2016	Y	n	Cunningham dr
Society Hill Storage	1/11/2016	n	y	
Joilet ROW	1/11/2016	n	y	Joilet
Thompson St	1/8/2016	Y	y	Headwall
Parkway market	1/14/2016	n	y	1st st
Oralfacial	1/14/2016	bn	y	corporate dr
Tiger square	1/14/2016	n	y	fredrick
280 eagle	1/14/2016	n	y	280
Lee Fair	1/14/2016	n	y	431
Sasucer ind	1/14/2016	y	y	Cunningham dr
Southern Union	1/19/2016	n	y	Campus
Saucier industry	1/19/2016	n	y	Cunningham dr
Stone Martin	1/19/2016	n	y	preston dr
704 8th	1/21/2016	n	y	8th ave
Percision Oil	1/22/2016	n	y	saug sq.
parkway market	1/22/2016	n	y	1st st
parkway market	1/26/2016	n	y	1st
Honda	1/26/2016	n	y	280
280 eagle	1/26/2016	n	y	280
Society Hill Storage	1/26/2016	N	Y	society rd
Stone martin	2/1/2016	n	y	preston st
704 8th AVE	2/1/2016	n	y	8ave
parkan market	2/5/2016	n	y	CEP new
Grand National 7	2/12/2016	n	y	start up
Stone Martin	2/15/2016	n	y	preston st
Lee Co Fair	2/15/2016	n	y	co
Stone Martin	2/16/2016	n	y	prestson street
Tiger Square	2/16/2016	n	y	fredrick

Mill Lakes	2/16/2016	n	Y		280
RTJ	2/16/2016	n	Y	grand natl	
Southern Union	2/16/2016	n	Y	campus	
King Honda	2/16/2016	n	Y		280
280 eagle mart	2/18/2016	n	Y		280
King Honda	2/23/2016	n	Y		280
tiger square	2/23/2016	n	Y	fredrick	
mob 3	2/23/2016	n	Y	village proff	
porter prop	2/22/2016	y	Y	center hill	
porter prop	2/23/2016	n	Y	center hill	
hamilton lakes	2/25/2016	Y	Y	pre-evaluation	
LE energy	3/3/2016	n	Y	corporate dr	
Parkway Farmers Market	3/3/2016	N	Y	1st st	
Porter prop	3/3/2016	n	Y	CENTER HILLS	
Oralfacial	3/3/2016	N	Y	CORPORATE DR	
TIGER SQUARE	3/3/2016	N	Y	FREDRICK	
PACES	3/3/2016	N	Y	ACADEMY DR	
King Honda	3/9/2016	n	Y		280
Mill Lakes	3/9/2016	N	Y		280102
L E energy	3/10/2016	n	Y	corporate dr	
Oralfacial	3/10/2016	n	Y	corporate dr	
mingledoofs	3/11/2016	Y	Y	1st st	
Oralfacial	3/15/2016	n	Y	corporate dr	
LE energy	3/15/2016	n	Y	"	
Parkway Farmers Market	3/17/2016	n	Y	1st st	
MOB 3	3/17/2016	n	Y	POP	

HUA	COMPLY	issue
	102 n	no veg, inlet protect;CEP
	120 n	silt:veg
	202 n	sand in street
	102 n	bare, silt, ero
	102 Y	noise
	102 n	veg
	202 y	clearing phase
	202 y	slab work, almos tdone
	202 y	seeded and good stand
	202 y	seeded and buildign up. Det pond Good
	102 n	CEP, seed & mulching needed. Called Nix
	202 n	road silt. No work yet
	102 N	runoff of silt
	102 Y	MULCHED AND DIVERTED
	102 n	sand in road
	102 n	not seeded
	102	cleaned and bermed
	102	good mulched
	102	road mud
	102	cleadred only
	102	water ROW eroding
	102	head wall erosion to PW
	102	needs seed and mulch still [pix
	102	controlled
	102	new CEP
	202	pouring entrance
	102	no sitl fencing
	102	road sand
	102 n	vegetation
	102 n	roda silt
	102	veg
	102 n	veg
	102 Y	moppin goil now
	102 n	tracking mud
	102 n	re worked CEP and silt fencing
	102 y	moer mulch n seeding
	202 Y	CONCRETE PARKIGN IN
	202 y	cleared and mulched !!
	102 n	mud in street
	102 n	idle work n bare
	102 n	CEP refreshed
	102 n	needs 1 more CEP
	102 Y	MORE MULCH
	102 N	no silt fencing
	102 y	adding mulch
	102 y	service silt fence

102 Y job locked
102 Y CEP #2
102 Y more mulch
102 n REPAIR SILT FENCE
202 Y sod down complete jh
102 repaired diversion
202 REPAIRED diversion
102 good functioning
102 stil leaking
102 rebuilding crew in repair
202 permit pre TSS and site visit
202 on going parking lots going down
102 new CEP, worked stopped
102 ONGOING
202 PARKING LOT WORK
202 PARKING LOT WORK
102 IDLE
102 BASE GOING DOWN
102 good well, idle for now
202 parking lot sufficient
202 pourign curb sufficient
102 idle not broken ground
202 curbing good
202 curbing good
102 idle
102 framing

Construction Inspection Violation Example

3



Violation Notification

Date: July 18, 2015
Address: 605, 607, 702 Drive
To: Development Inc.
P.O. Box xxx
Opelika, AL 36831

To Whom It May Concern:

This is to officially notify you that you are in violation of the Erosion and Sediment Control Ordinance #116-02 enforced by the City of Opelika. According to Section 7-87 of this ordinance, you are required by this ordinance to correct all deficiencies within within 72 hours of receipt of this notification. If the corrective action does not occur within this time, this site will be issued a **STOP WORK ORDER**.

Paragraph 2. of Section 7-88 in this ordinance establishes penalties for violations. Any person violating any provision shall be deemed guilty of a misdemeanor and each day during which a violation is allowed to continue, will constitute a separate offense. Conviction of a violation shall be punishable by a fine up to \$500.00 for each offense. In addition to any other penalty authorized by this section, any person, partnership, or corporation convicted of violating any of the provisions herein shall be required to bear the expense of such restoration.

The nature of the violation and the action necessary to abate the violation is noted below. Please notify my office at 705-5420 so I can verify that corrective actions are in place to correct this violation.

Nature of Violation: Proper erosion control is not being properly maintained. The erosion and silt accumulation continues to be a chronic problem throughout the Harwell Hills subdivision. Barren areas remain unseeded and silt fences are not being maintained on vacant lots.

Action Necessary to Correct Violation: Implement silt fences to control erosion. Stabilize and minimize all barren areas and stabilize erosion. Maintain erosion control measures as required by the Erosion and Sediment Control Ordinance. Remove all mud and rocks on McDonald Drive in and around 605, 607, and 702 McDonald Drive. Sincerely,

David R. Chapman
Building Inspector



Harris, John M

From: Harris, John M
Sent: Tuesday, November 24, 2015 3:23 PM
Cc: Parker, Scott H; Gwin, John M
Subject: OFF SITE EFFECTS
Attachments: Lorr.JPG

If you are receiving this e-mail, your construction site is contributing to Orr Lake (aka. Scott Lake) problem.

This construction site is in a priority watershed as classified by ADEM. The visibility of this site invites ADEMs' inspectors to come and find its source as they drive I-85, Issuing violation notices you will NOT like.

One site vendor has placed a floc-log into the major "site draining storm pipe" per my request. I hope the other 2 sites will do the same. However, this is NOT a floc-log issue (used to clear up the water turbidity). Arresting the erosion and keeping it trapped on the upland site is vital.

Ignoring to establish vegetation on turned dirt is no longer a choice. The entire exposed dirt, left exposed, NOW, is to be seeded and mulched.

Should you need help, I am here. This deposition bar was exposed today as the storm water swell has now passed down stream. If the attached picture wildlife park continues to grow, I will move beyond this last verbal caution and issue a stop work order.

Because of the Thanksgiving holiday, I shall check back Tuesday December 1st to look for adequate seed and mulch. I do perform a seed count per square foot.

Regards

John M. Harris

You can't expect what you don't inspect!

QCI # 3656
Watershed Coordinator
City of Opelika
Office 334-705-5454
Fax 334-705-5452
jharris@opelika-al.gov
700 Fox Trail
P.O. Box 390
Opelika, Alabama 36801

Harris, John M

From: Parker, Scott H
Sent: Monday, February 22, 2016 11:32 AM
To: 'Dozier Smith T'
Cc: Harris, John M
Subject: RE: Source of apparent illicit discharge

Dozier

It is one of those situations that we don't know about it until after it happens. As long as they stop it should not be an issue. We can talk to the workers if you think it will help.

Thank You,

Scott Parker
City of Opelika Engineer

From: Dozier Smith T [mailto:dozier@smithtbuildingsupply.com]
Sent: Monday, February 22, 2016 11:29 AM
To: Parker, Scott H
Subject: RE: Source of apparent illicit discharge

Scott,

I have had some guys working at my sister's house, and told them not to do that anymore; actually had no idea that they were doing that. I am very sorry.

Dozier Smith T
Winston Smith T Building Supply
812 N. Railroad Avenue
Opelika, AL 36801
334-745-4618

From: Parker, Scott H [mailto:sparker@opelika-al.gov]
Sent: Monday, February 22, 2016 11:06 AM
To: 'Dozier Smith T'
Cc: Harris, John M
Subject: Source of apparent illicit discharge

Dozier

Last week we had a call from a few citizens regarding discolored water in the stream that is highlighted in the attached drawing. John Harris and I both investigated to see if we could find out where the source of the colored water. John thinks that he may have found the apparent location...701 N. 5th Avenue...you may know of this location...

It looks like someone is washing out paint brushes and supplies in the inlet identified in the photo and is causing the constantly running stream to change color...I have also attached a photo of this water.

Harris, John M

From: Harris, John M
Sent: Tuesday, January 12, 2016 3:15 PM
To: 'Nolan Yon'
Subject: RE: Courtyard Apartments 2050 Pepperell Pkwy

Thank You Nolan.
Anytime
JH

John M Harris
Watershed Coordinator
City of Opelika

From: Nolan Yon [mailto:ignolanyon@gmail.com]
Sent: Tuesday, January 12, 2016 1:16 PM
To: Harris, John M
Subject: Courtyard Apartments 2050 Pepperell Pkwy

John,

It was great meeting you last Friday, and I apologize for not following up yesterday. The white shade behind the courtyard was from the pool work. The first picture is from this morning. The pool subcontractor was rinsing the pool and flushing the water onto the ground. I noticed it and made a "catch basin" as shown in the second picture. The last picture shows the current state of the creek with no discoloration. Feel free to come by anytime or give me a call on my cel 334-439-9665.

Thank You,
Nolan Yon
The Infinity Group, L.L.C.

Harris, John M

From: Harris, John M
Sent: Friday, January 08, 2016 3:54 PM
To: Johnson, Nicholas C
Cc: Parker, Scott H
Subject: RE: Illicit discharge 2050 Pepperell pkwy

White chalky water in water turns out be sand blasting chalk from the swimming pool at the complex.

Thanks

Great call.

John

John M Harris
Watershed Coordinator
City of Opelika

-----Original Message-----

From: Johnson, Nicholas C
Sent: Friday, January 08, 2016 1:53 PM
To: Harris, John M <JHarris@opelika-al.gov>
Subject: FW: Illicit discharge 2050 pepperell pkwy

Hi John,

There seems to be an illicit discharge in the stream behind the apartments at 2050 Pepperell Pkwy near the hospital. White substance is coming out of a storm drain and mixing with the stream just below the walking bridge there. Just thought you'd want to take a look.

-Cole Johnson

-----Original Message-----

From: Nicholas Johnson [mailto:ncj0005@tigermail.auburn.edu]
Sent: Friday, January 08, 2016 12:47 PM
To: Johnson, Nicholas C <Nicholas.Johnson@opelikapower.com>
Subject: Illicit discharge 2050 pepperell pkwy

Harris, John M

From: Harris, John M
Sent: Tuesday, January 05, 2016 1:27 PM
To: davidh@hudmonconst.com
Cc: 'kennefick@bellosuth.net'
Subject: Chris_Haley Smith back yard
Attachments: IMG_4699.JPG; IMG_4702.JPG; IMG_4703.JPG; IMG_4705.JPG; IMG_4706.JPG

Gentlemen:

I am attaching pictures (5) I took today from Sanders Creek subdivision.

Mr. Kennefick has turned his runoff. Staked wheat bales at the back of the Smith property and stayed on his property as I can tell. The larger drainage is diverted to a wide mouth swale. The graded lot has been mulched and due to the heavy rain could use re-mulching. Rye grass seed can be reapplied.

I ask both neighbors continue to use me as a resource. Come spring, I did see against the Smith brick wall, leveling and silt removal will be needed and a new draining grade be established at the rear wall and patio.

John

John M. Harris

You can't expect what you don't inspect!

QCI # 4431

Watershed Coordinator

City of Opelika

Office 334-705-5454

Fax 334-705-5452

jharris@opelika-al.gov

700 Fox Trail

P.O. Box 390

Opelika, Alabama 36801



Confidentiality Notice: This e-mail message, including any attachments, is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is

Harris, John M

From: Harris, John M
Sent: Thursday, March 03, 2016 9:55 AM
To: 'bklinkhammer@phjarch.com'; Tyler Henry (thenry@jescoinc.net); dbaldwin@suscc.edu
Cc: Parker, Scott H
Subject: Truck track runoff
Attachments: JohnGriffin.jpg; IMG_5493.JPG; repair.JPG; total.JPG

Gentlemen:

I have received more complaints from the runoff coming off the Southern Union Truck Track. Mr. John Griffin at 800 WestPoint Parkway. 678-977-4421. See his pix. Mr. Bennett's pond has been spoiled and muddy runoff is seen 1 mile downstream.

The city was never given notice of this construction because we believe no ADEM permit was filed and this is state property.

I am attaching 4 picture.

I am aware the watershed runoff curve has changed dramatically; forever, coming from trees to almost a total impervious surface.

I question if the detention basin is designed with enough capacity and storage. I also believe the land behind the VFW should be diverted through the detention. Which brings me back to the capacity of the basin.

I question the plan for perennial vegetation needed for close out. A high blade height (a good agronomic practice) will slow runoff if maintained this way. Again, we have not been involved as the project was structured.

Should more complaints continue, we will have to involve ADEM as protocol, not a threat.

I am available for a meeting to bring all the unseen matters to a successful conclusion.

Regards,

John

[cc:file](#)

John M. Harris

You can't expect what you don't inspect!

QCI # 4431

Watershed Coordinator

City of Opelika

Office 334-705-5454

Harris, John M

From: Harris, John M
Sent: Monday, January 11, 2016 3:43 PM
To: Hilyer, Michael J.
Subject: RE: 3 PIX

Just back from A&B.
I will do GIS tracing for follow up at outfalls.
I need your source to complete my report.
Who gave you this information?

Thanks for your participation and passing this along to us.

J

John M Harris
Watershed Coordinator
City of Opelika

From: Hilyer, Michael J.
Sent: Monday, January 11, 2016 2:44 PM
To: Harris, John M
Subject: RE: 3 PIX

They are coming in at 10MB, not a view issue. I just received a report that AB Tire store is putting chemicals in the storm drain. 3900 Pepperell PW

Mike Hilyer
Public Works Director
City of Opelika/ESG
700 Fox Trail
Opelika, AL 36801
334-705-5413 Office
334-705-5452 Fax
334-750-7790 Cell

From: Harris, John M
Sent: Monday, January 11, 2016 2:41 PM
To: Hilyer, Michael J. <MHilyer@opelika-al.gov>
Subject: RE: 3 PIX

Mike:

This city I-pad is unable to change photo size or resolution.
Depending on your photo-viewer browser;
You will need to click your mouse, click view, then click zoom out.

Sorry.



Appendix E

Post-Construction Storm Water Management in New Development and Redevelopment



E1. Detention Facility Inspections

Maintaining Detention Ponds

What is a detention pond?

A detention pond is used to improve the quality of stormwater runoff from roads, parking lots, residential neighborhoods, commercial areas, industrial sites, and more, and to reduce peak stormwater runoff rates by providing temporary storage during larger storm events. A functioning detention pond is a requirement for stormwater management.

You, as the owner of this stormwater facility, manager of a commercial site, or as a member of a Homeowner Association (HOA), need to understand the importance of the detention pond facility and your obligation to assure its continued proper function. This fact sheet will provide the basic information you need to operate a fully functional detention pond on your property.

Who is responsible for your detention pond?

Designation of a responsible party is essential to assure proper operation of your detention pond facility. In some instances this may be a shared responsibility. In the majority of the cases, the property owner or the HOA is responsible for the correct operation and proper maintenance of the pond. Recorded deeds and plats located in the Courthouse can shed more light on the legal responsibility of these properties and subdivisions.

Why maintain your detention pond?

Stormwater runoff is a significant source of water pollution in urbanizing areas. In addition, the increased volumes of flow resulting from added impervious areas during development results in increased runoff volumes. Detention ponds mitigate both scenarios by providing a treatment basin for pollutant removal as well as a collection basin to detain the larger flows and reduce the peak runoff rates downstream. Properly maintained detention ponds can be very effective at removing certain pollutants and providing necessary storage volumes during storm events. Improperly maintained ponds can increase discharge of pollutants downstream, increase the risk of flooding downstream, increase the instability of downstream channels, and lead to aesthetic and nuisance problems.

Poor operation and maintenance is a major cause of detention pond failure. Poor maintenance can also create unpleasant odors, nuisance insects, algae blooms and a generally unsightly and unkempt area. Detention ponds may fail due to:

- Poor vegetation maintenance in terms of mowing and vegetation control
- Clogged inlets and outlets resulting from trash, debris, and sediment accumulation
- Failed side slopes and earthen spillways
- Inadequate access for routine maintenance activities

Maintenance considerations...

Routine maintenance:

- Periodic scheduled inspections and inspections after major rainfall events should be performed by the owner to check for obstructions/damage and to remove debris/trash.
- Vegetation should be managed on a regular basis to prevent erosion, mitigate storm runoff, and for aesthetics. The grassing should be mowed frequently and any other trees or plants should be removed. A consistent stand of grass with no bare dirt areas is essential to proper pond stability.
- Trash and debris should be removed, especially any causing obstructions at the inlet, outlet, orifice, or any other drainage structure.
- Inspect all mechanical and structural components. Ensure that fence gates, locks and other mechanical components are functioning correctly. Inspect the inlets, outlets, and other structures for conditions and any additions to the annual non-routine maintenance list.

Non-Routine maintenance:

- All areas that are bare or washed should be re-stabilized with grassing. It is critical to keep an effective grassed ground cover in order for proper infiltration, discharge, and effective filtering of pollutants. Proper stabilization will also prevent erosion and the release of sediment into the pond and structures.
- Every few months or so, the accumulated sediment should be removed from the bottom of the pond to ensure proper pond capacity and to keep the sediment from entering the structures and discharging off-site. Any sediment found in the pond outlet structures should be removed immediately before the sediment leaves the site, and should be a part of routine maintenance.
- Repair or replace any damaged or poor functioning pond structures, outlet pipes, or other components to ensure the pond is operating as designed.



Engineering Department
City of Opelika, Alabama
700 Fox Trail
Opelika, Alabama 36801
Phone: 334.705.5450 Fax: 334.705.5452



1:24,000

1

2

3

4

pg
1
2
3
4

18
38
63
8

Storm Water Detention Inspection

	A	B	C	D	E
1	FACILITYID	Initials	date	remarks	DETENTION actions
2	SWRet1				
3	SWRet2				
4	SWRet3				
5	SWRet4				
6	SWRet5				
7	SWRet6				
8	SWRet7				
9	SWRet8				
10	SWRet9				
11	SWRet10				
12	SWRet11	NO			
13	SWRet12				
14	SWRet13				
15	SWRet14	JH	2/29/2016	NEEDS CLEANING	routine
16	SWRet15	JH	2/29/2016	OK	routine
17	SWRet16	JH	2/29/2016	NEEDS CLANING	reotine
18	SWRet17				
19	SWRet18				
20	SWRet19				
21	SWRet20				
22	SWRet21				
23	SWRet22				
24	SWRet23				
25	SWRet24				
26	SWRet25				
27	SWRet26				
28	SWRet27	bp	7/14/2015	grown up	routine
29	SWRet28				
30	SWRet29				
31	SWRet30				
32	SWRet31				
33	SWRet32				
34	SWRet33				
35	SWRet34				
36	SWRet35				
37	SWRet36				
38	SWRet37				
39	SWRet38				
40	SWRet39				
41	SWRet40				
42	SWRet41				
43	SWRet42				
44	SWRet43				
45	SWRet44				
46	SWRet45				

	A	B	C	D	E
47	SWRet46				
48	SWRet47				
49	SWRet48				
50	SWRet49				
51	SWRet50				
52	SWRet51				
53	SWRet52				
54	SWRet53				
55	SWRet54				
56	SWRet55				
57	SWRet56				
58	SWRet57				
59	SWRet58				
60	SWRet59				
61	SWRet60				
62	SWRet61				
63	SWRet62				
64	SWRet63				
65	SWRet64				
66	SWRet65				
67	SWRet66				
68	SWRet67				
69	SWRet68	jmh	1/19/2016 good cover	routine	
70	SWRet69				
71	SWRet70				
72	SWRet71				
73	SWRet72				
74	SWRet73				
75	SWRet74				
76	SWRet75				
77	SWRet76	jh	2/26/2016 POND	Needs spillway vegetation, trash ra	
78	SWRet77	jh	2/26/2016 fair	needs to be reseeded or sodded	
79	SWRet78	jh	2/26/2016 Ok	routine	
80	SWRet79	jh	2/26/2016 ok	routine, fence has hole from tree	
81	SWRet80				
82	SWRet81				
83	SWRet82				
84	SWRet83				
85	SWRet84				
86	SWRet85	bp	8/14/2015 ok	routine	
87	SWRet86	bp	8/14/2015 ok	routine	
88	SWRet87				
89	SWRet88	jmh	1/19/2016 good cover	routine	
90	SWRet89				
91	SWRet90				
92	SWRet91				

	A	B	C	D	E
93	SWRet92				
94	SWRet93				
95	SWRet94	bp	7/10/2015 ok		routine
96	SWRet95				
97	SWRet96	bp	7/10/2015 wooley		routine
98	SWRet97				
99	SWRet98	bp	7/10/2015 ok		routine
100	SWRet99	bp	7/10/2015 ok. Pond		not detention: POND
101	SWRet100				
102	SWRet101	bp	7/10/2015 good cover		routine
103	SWRet102	bp	7/10/2015 good cover		routine
104	SWRet103				
105	SWRet104				
106	SWRet105				
107	SWRet106				
108	SWRet107				
109	SWRet108				
110	SWRet109	bp	7/13/2015 ok		routine
111	SWRet110	bp	7/13/2015 good cover		routine
112	SWRet111				
113	SWRet112				
114	SWRet113				
115	SWRet114	jh	2/29/2016 ok		cutting inside basin
116	SWRet115	jh	2/29/2016 ok		topsoil and 1 area grassed
117	SWRet116	jh	2/29/2016 ok		needs cutting inside
118	SWRet117				
119	SWRet118				
120	SWRet119	jmh	11/6/2015 needs vegetation		routine
121	SWRet120				
122	SWRet121				
123	SWRet122				
124	SWRet123	jh	3/1/2016 GONE filled in		developed over
125	SWRet124	jh	3/1/2016 wet full		excellent
126	SWRet125	jh	3/1/2016 excellent		water full, needs intake cleaned
127	SWRet126				
128	SWRet127	bp	7/14/2015 good cover		routine
129	SWRet128	bp	7/14/2015 good cover		routine
130	SWRet129				
131	SWRet130				
132	SWRet131				
133	SWRet132				
134	SWRet133				
135	SWRet134	bp	7/13/2015 good cover		routine
136	SWRet135	bp	7/13/2015 good cover		routine
137	SWRet136				
138	SWRet137				

	A	B	C	D	E
139	SWRet138				
140	SWRet139				
141	SWRet140				
142	SWRet141				



Post-Construction Detention/Retention O&M Report
 Opelika Engineering Department—Stormwater Management
 700 Fox Trail, Opelika, AL 36801
 (334) 705-5150, (334) 705-5400

Purpose: The purpose of this form is to document the observations made during an investigation of post construction/maintenance BMP review located within the City's MS4 maintained by the property owner.

HUA 03 150 1100 102

Inspection Information

Pond Number: 76 Inspection Type: Initial Routine Follow-up
 Pond location: North Brook Dr
 Inspector Name: Hamm Date: 2/26/2016
 Property owner: _____ Contact: _____
 Phone _____ E-mail: _____
 Weather Conditions: Clear Cloudy Rain
 Previous Rainfall: 0 in on _____

Pond Condition

Is the detention area accessible for maintenance equipment? Yes No: _____
 Does the pond show signs of settling, sloughing or other problems? Yes No: _____
 Does the slopes or spillway show signs of erosion or instability? Yes No: by-pass of pond
 Is there evidence of animals that could contribute to pond instability? Yes No: _____
 Does the grass need mowing? Yes No Are there areas that need to be grassed? Yes No
 Does brush or debris need clearing, i.e. cattails, trees willows? Yes No Scheduled
 Is there an accumulation of trash, debris and/or litter to be removed? Yes No Scheduled
 Any signs of vandalism that could affect the pond performance? Yes No
 Any signs of pollution in standing water? Yes No No standing water: _____
 Abnormally high water level? Yes No Erosion at high water mark? Yes No: wave action
 Other comments: pond emergency spill way need over-sighting, height 3" hi
ESW channel has debris no armor - need grassing/seed

Structural Components

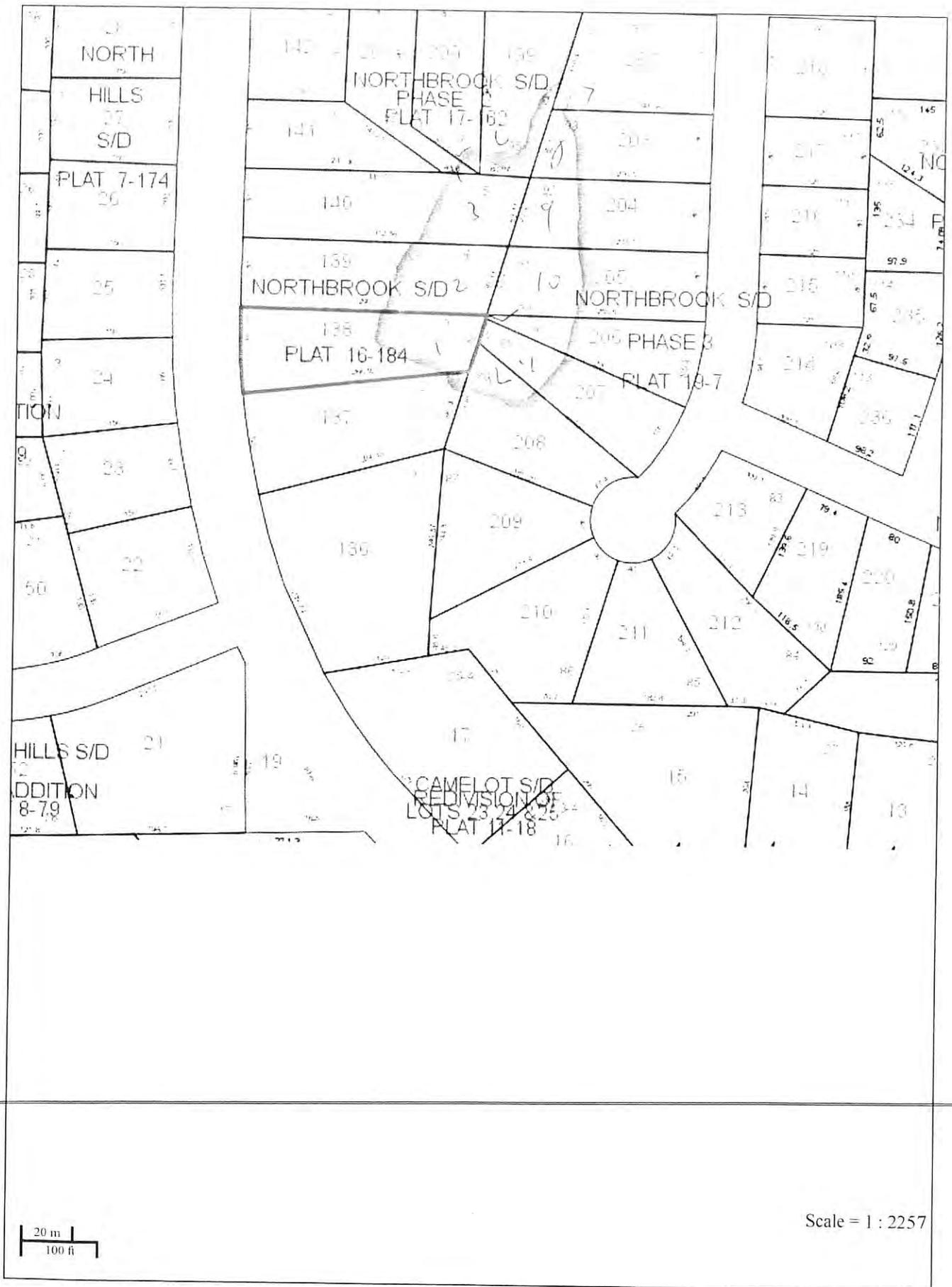
Are to pipes/inlets going into or out of the pond clogged or obstructed? Yes No
 Is the outfall channel from the pond functioning appropriately? Yes No: _____
 Is the inflow trickle channel working properly? Yes No: _____
 Is the detention structure orifice or overflow obstructed? Yes No
 Are the frames and covers with the outfall channel in good condition? Yes No: _____
 Other Comments: trash rack needed on top of release collar

Plan of Action

- Notify property owner of the inspection by certified mail within two days of inspection.
- Request an acknowledgement within 5 days of receipt of inspection report
- Request a plan of action within two weeks of receipt of inspection report
- Require maintenance noted within two months of receipt of inspection report.
- Continue Normal Inspection Schedule.

5409 05
06

Pond/Lake - not detention per se.



Lee County Alabama 2015 - Public GIS Web11 - f16.1-d16.1 - LeeAL - 10-01-2015 Parcel Details					
FavLink NewSrch Back Print					
Parcel					
Delta Pin:	39494				
Parcel No:	43 03 09 31 3 000 138.000				
Prop Addr:	2009 ROCKY BROOK RD				
Deed Acres:	0.00				
Deed Info:	B 2083	P 0000245	D 09-30-1996		
Plat Info:	B	P	D --		
Neighborhood:	OP R NB				
Tax District:	01-Opelika				
Owner					
Name:	TANT JAMES E JR & ROMANA M				
Address:	2009 ROCKY BROOK RD				
City, State, ZIP:	OPELIKA, AL 36801				
Values					
Land Total:	\$35,000.00				
Building Total:	\$126,880.00				
Appraised Value:	\$161,880.00				
Yrly Tax:	\$699.75 for 2015				
Building Bldg-Sketch					
Bldg No	Use Type	Yr Built	Base Area	Upper Area	Story
1	111	1994	2128	0	1
Tax History					
Tax Year	Date Paid	Amount Paid			
2015	12/23/2015	\$699.75			
2014	12/22/2014	\$820.72			
2013	12/16/2013	\$832.60			
2012	12/18/2012	\$856.36			

Co-12 months

NORTHBROOK PHASE 3

LEE COUNTY
T-20-N

OPELKA
SEC. 31

ALABAMA
P-27-E

ROCKY BROOK DEVELOPMENT, INC. OWNER OF THE REAL PROPERTY SHOWN ON THE PLAN HEREIN, IN THE TOWNSHIP OF SANDY HILL, WILKER AND WILKER LOTS AS SHOWN IN REFERENCE WITH THE ROCKY BROOK SUBDIVISION, PRESENT AND DATED THIS 21st DAY OF MARCH, 1978.

THE PLAN IS A REGISTERED SUBDIVISION IN THE STATE OF ALABAMA. HEREIN BEING PHASE 3 WAS MADE SUBSTANTIALLY IN ACCORDANCE WITH THE PRACTICE OF LAND SURVEYING IN ACCORDANCE WITH THE STANDARDS AND REGULATIONS OF THE BOARD OF SURVEYING ENGINEERS AND LAND SURVEYORS OF THE STATE OF ALABAMA, AND THE NUMBER AND THE NAME OF THE HUNDRED, SIXTY-NINE (69) SHOWN HEREIN, ACCORDING TO MY SURVEY OF MARCH 8, 1978.



David J. Hill
Surveyor

APPROVED BY THE LEE COUNTY ENGINEER, LEE COUNTY, ALABAMA
Date: 3/21/78

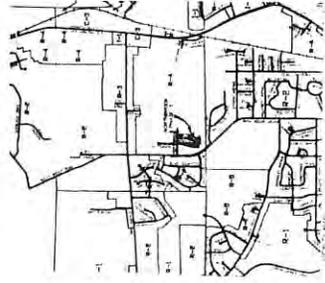
APPROVED BY THE OPELKA CITY ENGINEER, CITY OF OPELKA, LEE COUNTY, ALABAMA
Date: 3/21/78

APPROVED BY THE OPELKA BOARD OF COMMISSIONERS, CITY OF OPELKA, LEE COUNTY, ALABAMA
Date: 3/21/78

Rocky Brook Development, Inc.
President

THE PLAN IS A REGISTERED SUBDIVISION IN THE STATE OF ALABAMA. HEREIN BEING PHASE 3 WAS MADE SUBSTANTIALLY IN ACCORDANCE WITH THE PRACTICE OF LAND SURVEYING IN ACCORDANCE WITH THE STANDARDS AND REGULATIONS OF THE BOARD OF SURVEYING ENGINEERS AND LAND SURVEYORS OF THE STATE OF ALABAMA, AND THE NUMBER AND THE NAME OF THE HUNDRED, SIXTY-NINE (69) SHOWN HEREIN, ACCORDING TO MY SURVEY OF MARCH 8, 1978.

APPROVED BY THE OPELKA BOARD OF COMMISSIONERS, CITY OF OPELKA, LEE COUNTY, ALABAMA
Date: 3/21/78



NOTED: RECORDING STATE OF ALABAMA LEE COUNTY

NOTICE: This plat is subject to the provisions of the Alabama Subdivision Control Act, Title 35, Chapter 24-1-1, and the provisions of the Alabama Subdivision Control Act, Title 35, Chapter 24-1-2, and the provisions of the Alabama Subdivision Control Act, Title 35, Chapter 24-1-3.



5903 04
Post-Construction Detention/Retention O&M Report

Opelika Engineering Department—Stormwater Management
700 Fox Trail, Opelika, AL 36801
(334) 705-5150, (334) 705-5400

Purpose: The purpose of this form is to document the observations made during an investigation of post construction/maintenance BMP review located within the City's **MS4 maintained by the property owner.**

HUA: 03 150 1100 102

Inspection Information

Pond Number: 77 Inspection Type: Initial Routine Follow-up
Pond location: 413 Martha Ct
Inspector Name: Harris Date: 2 12 20 16
Property owner: State of AL ~~HOA~~ Contact: _____
Phone _____ E-mail: _____
Weather Conditions: Clear Cloudy Rain
Previous Rainfall: 0 in on _____

Pond Condition

Is the detention area accessible for maintenance equipment? Yes No: _____
Does the pond show signs of settling, sloughing or other problems? Yes No: eroding inlet
Does the slopes or spillway show signs of erosion or instability? Yes No: re seed
Is there evidence of animals that could contribute to pond instability? Yes No: _____
Does the grass need mowing? Yes No Are there areas that need to be grassed? Yes No
Does brush or debris need clearing, i.e. cattails, trees willows? Yes No Scheduled
Is there an accumulation of trash, debris and/or litter to be removed? Yes No Scheduled
Any signs of vandalism that could affect the pond performance? Yes No
Any signs of pollution in standing water? Yes No No standing water: N/A
Abnormally high water level? Yes No Erosion at high water mark? Yes No
Other comments: Needs rip-rap at inlet to armor up splash
- needs to be seeded or sodded

State
Law

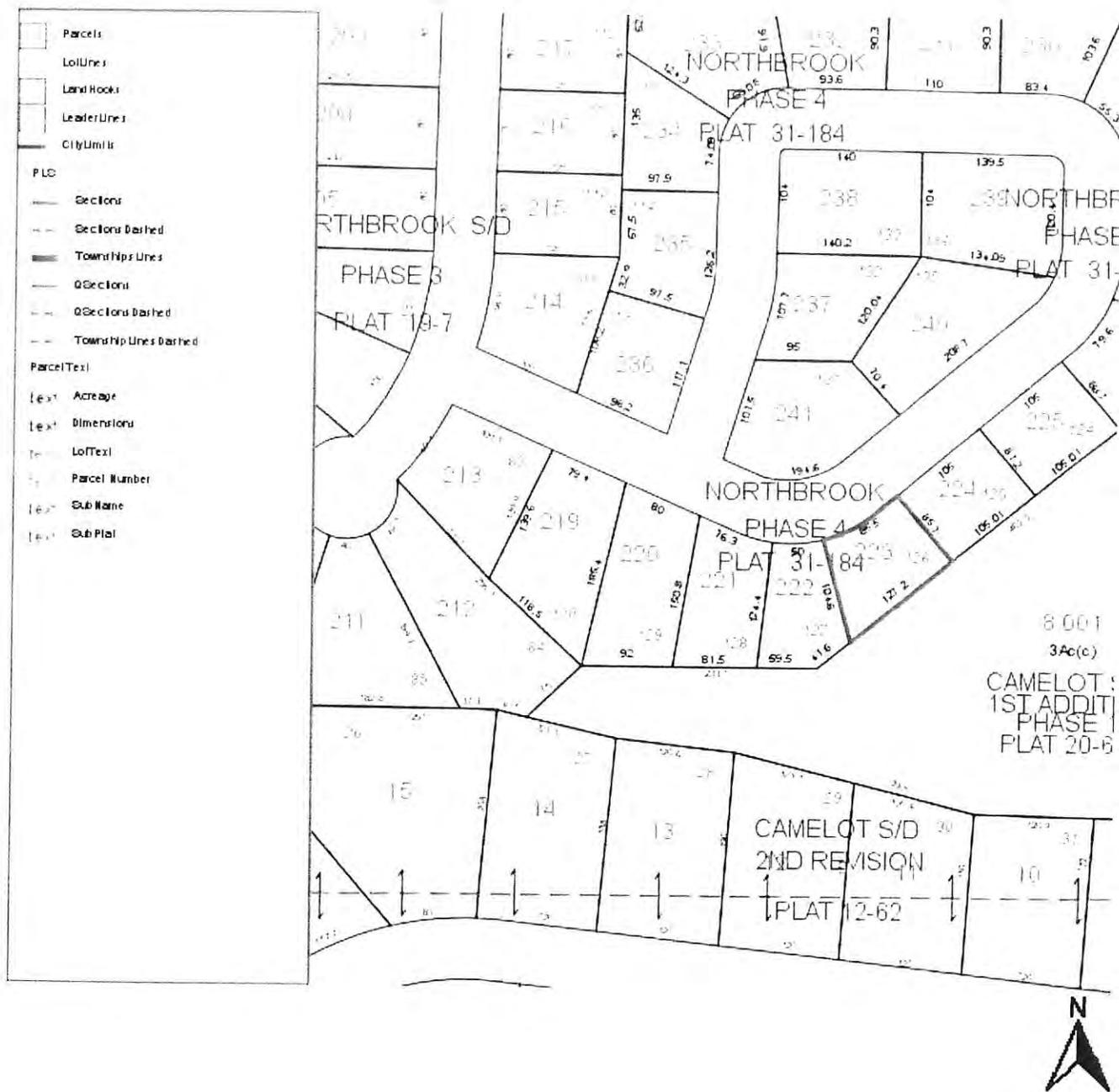
Structural Components

Are to pipes/inlets going into or out of the pond clogged or obstructed? Yes No: _____
Is the outfall channel from the pond functioning appropriately? Yes No: _____
Is the inflow trickle channel working properly? Yes No: _____
Is the detention structure orifice or overflow obstructed? Yes No: _____
Are the frames and covers with the outfall channel in good condition? Yes No: _____
Other Comments: _____

re-veg

Plan of Action

- Notify property owner of the inspection by certified mail within two days of inspection.
- Request an acknowledgement within 5 days of receipt of inspection report
- Request a plan of action within two weeks of receipt of inspection report
- Require maintenance noted within two months of receipt of inspection report.
- Continue Normal Inspection Schedule.



Lee County Alabama 2015 - Public GIS Web11 - f16.1-d16.1 - LeeAL - 10-01-2015 Parcel Details			
FavLink NewSrch Back Print			
Parcel			
Delta Pin:	74380		
Parcel No:	43 03 09 31 3 000 223.000		
Prop Addr:	413 MARTHA CT		
Deed Acres:	0.00		
Deed Info:	B TAX	P SALE	D 05-04-2011
Plat Info:	B	P	D --
Neighborhood:	OP R NB4		
Tax District:	01-Opelika		
Owner			
Name:	STATE OF ALABAMA *2010*		
Address:	P O BOX 327210		
City, State, ZIP:	MONTGOMERY, AL 36132		
Values			
Land Total:	\$1,000.00		
Building Total:	\$0.00		
Appraised Value:	\$1,000.00		
Yrly Tax:	\$0 for 2015		
Tax History			
Tax Year	Date Paid	Amount Paid	
2015	//	\$0.00	
2014	//	\$0.00	
2013	//	\$0.00	
2012	//	\$0.00	



Post-Construction Detention/Retention O&M Report
 Opelika Engineering Department—Stormwater Management
 700 Fox Trail, Opelika, AL 36801
 (334) 705-5150, (334) 705-5400

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HUA 102

Inspection Information

Pond Number: 123 Inspection Type: Initial Routine Follow-up
 Pond location: RTJ
 Inspector Name: Harris Date: 3 / 1 20 16
 Property owner: RSA Contact: _____
 Phone _____ E-mail: _____
 Weather Conditions: Clear Cloudy Rain
 Previous Rainfall: 0 in on _____

Pond Condition

Is the detention area accessible for maintenance equipment? Yes No: Filled in
 Does the pond show signs of settling, sloughing or other problems? Yes No: Filled in
 Does the slopes or spillway show signs of erosion or instability? Yes No: to build on
 Is there evidence of animals that could contribute to pond instability? Yes No: to build on
 Does the grass need mowing? Yes No Are there areas that need to be grassed? Yes No
 Does brush or debris need clearing, i.e. cattails, trees willows? Yes No Scheduled
 Is there an accumulation of trash, debris and/or litter to be removed? Yes No Scheduled
 Any signs of vandalism that could affect the pond performance? Yes No _____
 Any signs of pollution in standing water? Yes No No standing water: _____
 Abnormally high water level? Yes No Erosion at high water mark? Yes No: _____
 Other comments: Some

Structural Components

Are the pipes/inlets going into or out of the pond clogged or obstructed? Yes No: _____
 Is the outfall channel from the pond functioning appropriately? Yes No: _____
 Is the inflow trickle channel working properly? Yes No: _____
 Is the detention structure orifice or overflow obstructed? Yes No: _____
 Are the frames and covers with the outfall channel in good condition? Yes No: N/A
 Other Comments: _____

Plan of Action

- Notify property owner of the inspection by certified mail within two days of inspection.
- Request an acknowledgment within 5 days of receipt of inspection report
- Request a plan of action within two weeks of receipt of inspection report
- Require maintenance noted within two months of receipt of inspection report.
- Continue Normal Inspection Schedule



Post-Construction Detention/Retention O&M Report
 Opelika Engineering Department—Stormwater Management
 700 Fox Trail, Opelika, AL 36801
 (334) 705-5150, (334) 705-5400

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HUA 03-130

Inspection Information

Pond Number: 78 Inspection Type: Initial Routine Follow-up
 Pond location: Bos Lafayette Pkwy Marthas Court
 Inspector Name: Adam Date: 2, 26 20 16
 Property owner: _____ Contact: _____
 Phone _____ E-mail: _____
 Weather Conditions: Clear Cloudy Rain
 Previous Rainfall: 0 in on _____

Pond Condition

Is the detention area accessible for maintenance equipment? Yes No: _____
 Does the pond show signs of settling, sloughing or other problems? Yes No: _____
 Does the slopes or spillway show signs of erosion or instability? Yes No: _____
 Is there evidence of animals that could contribute to pond instability? Yes No: _____
 Does the grass need mowing? Yes No: Are there areas that need to be grassed? Yes No:
 Does brush or debris need clearing, i.e. cattails, trees willows? Yes No: Scheduled _____
 Is there an accumulation of trash, debris and/or litter to be removed? Yes No: Scheduled _____
 Any signs of vandalism that could affect the pond performance? Yes No: _____
 Any signs of pollution in standing water? Yes No: No standing water: _____
 Abnormally high water level? Yes No: Erosion at high water mark? Yes No: _____
 Other comments: _____

Structural Components

Are the pipes/inlets going into or out of the pond clogged or obstructed? Yes No: _____
 Is the outfall channel from the pond functioning appropriately? Yes No: _____
 Is the inflow trickle channel working properly? Yes No: _____
 Is the detention structure orifice or overflow obstructed? Yes No: _____
 Are the frames and covers with the outfall channel in good condition? Yes No: _____
 Other Comments: _____

Plan of Action

- Notify property owner of the inspection by certified mail within two days of inspection.
- Request an acknowledgement within 5 days of receipt of inspection report
- Request a plan of action within two weeks of receipt of inspection report
- Require maintenance noted within two months of receipt of inspection report.
- Continue Normal Inspection Schedule



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 700 Fox Trail, Opelika, AL 36801
 (334) 705-5150, (334) 705-5400

Purpose: The purpose of this form is to document the observations made during an investigation of post construction/maintenance BMP review located within the City's MS4 maintained by the property owner.

HUA 03130 002 1107 Hallowakre creek C

Inspection Information

Pond Number: 79 Inspection Type: Initial Routine Follow-up
 Pond location: 2300 Lafayette Pkwy #202 Martha's Court
 Inspector Name: Harris Date: 2/26/2016
 Property owner: _____ Contact: _____
 Phone: _____ E-mail: _____
 Weather Conditions: Clear Cloudy Rain
 Previous Rainfall: 0 in on _____

Pond Condition

Is the detention area accessible for maintenance equipment? Yes No: _____
 Does the pond show signs of settling, sloughing or other problems? Yes No:
 Does the slopes or spillway show signs of erosion or instability? Yes No:
 Is there evidence of animals that could contribute to pond instability? Yes No:
 Does the grass need mowing? Yes No: Are there areas that need to be grassed? Yes No:
 Does brush or debris need clearing, i.e. cattails, trees willows? Yes No: Scheduled _____
 Is there an accumulation of trash, debris and/or litter to be removed? Yes No: Scheduled _____
 Any signs of vandalism that could affect the pond performance? Yes No:
 Any signs of pollution in standing water? Yes No: No standing water: _____
 Abnormally high water level? Yes No: Erosion at high water mark? Yes No:
 Other comments: _____

Structural Components

Are the pipes/inlets going into or out of the pond clogged or obstructed? Yes No:
 Is the outfall channel from the pond functioning appropriately? Yes No: _____
 Is the inflow trickle channel working properly? Yes No:
 Is the detention structure orifice or overflow obstructed? Yes No:
 Are the frames and covers with the outfall channel in good condition? Yes No: _____
 Other Comments: 24" tree had fallen on fence on south

Plan of Action

- Notify property owner of the inspection by certified mail within two days of inspection.
- Request an acknowledgement within 5 days of receipt of inspection report
- Request a plan of action within two weeks of receipt of inspection report
- Require maintenance noted within two months of receipt of inspection report.
- Continue Normal Inspection Schedule.



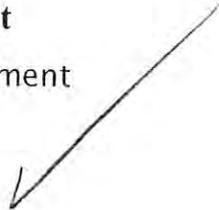
Post-Construction Detention/Retention O&M Report

Opelika Engineering Department—Stormwater Management

700 Fox Trail, Opelika, AL 36801

(334) 705-5150, (334) 705-5400

HVA 107



Purpose: The purpose of this form is to document the observations made during an investigation of post construction/maintenance BMP review located within the City's MS4 maintained by the property owner.

Inspection Information

Pond Number: SwRet 88 Inspection Type: Initial Routine Follow-up
 Pond location: North Park Dr
 Inspector Name: JH Date: 1/19/2016
 Property owner: COO Contact: Pharokul
 Phone: _____ E-mail: _____
 Weather Conditions: Clear Cloudy Rain
 Previous Rainfall: 0 in on _____

Pond Condition

Is the detention area accessible for maintenance equipment? Yes No: _____
 Does the pond show signs of settling, sloughing or other problems? Yes No: _____
 Does the slopes or spillway show signs of erosion or instability? Yes No: _____
 Is there evidence of animals that could contribute to pond instability? Yes No: _____
 Does the grass need mowing? Yes No Are there areas that need to be grassed? Yes No
 Does brush or debris need clearing, i.e. cattails, trees willows? Yes No Scheduled 2018
 Is there an accumulation of trash, debris and/or litter to be removed? Yes No Scheduled
 Any signs of vandalism that could affect the pond performance? Yes No
 Any signs of pollution in standing water? Yes No No standing water: _____
 Abnormally high water level? Yes No Erosion at high water mark? Yes No
 Other comments: _____

Structural Components

Are to pipes/inlets going into or out of the pond clogged or obstructed? Yes No: UN : ok
 Is the outfall channel from the pond functioning appropriately? Yes No: _____
 Is the inflow trickle channel working properly? Yes No: _____
 Is the detention structure orifice or overflow obstructed? Yes No: _____
 Are the frames and covers with the outfall channel in good condition? Yes No: _____
 Other Comments: _____

Plan of Action

- ___ Notify property owner of the inspection by certified mail within two days of inspection.
- ___ Request an acknowledgement within 5 days of receipt of inspection report
- ___ Request a plan of action within two weeks of receipt of inspection report
- ___ Require maintenance noted within two months of receipt of inspection report.



Post-Construction Detention/Retention O&M Report
 Opelika Engineering Department—Stormwater Management
 700 Fox Trail, Opelika, AL 36801
 (334) 705-5150, (334) 705-5400

Purpose: The purpose of this form is to document the observations made during an investigation of post construction/maintenance BMP review located within the City's MS4 maintained by the property owner.

HUA 107

Inspection Information

Pond Number: SwRet 63 Inspection Type: Initial Routine Follow-up
 Pond location: Northpark Pharmatime
 Inspector Name: SH Date: 1 / 19 20 16
 Property owner: Pharmatime Contact: _____
 Phone _____ E-mail: _____
 Weather Conditions: Clear Cloudy Rain
 Previous Rainfall: 0 in on _____

Pond Condition

Is the detention area accessible for maintenance equipment? Yes No: _____
 Does the pond show signs of settling, sloughing or other problems? Yes No
 Does the slopes or spillway show signs of erosion or instability? Yes No
 Is there evidence of animals that could contribute to pond instability? Yes No
 Does the grass need mowing? Yes No Are there areas that need to be grassed? Yes No
 Does brush or debris need clearing, i.e. cattails, trees willows? Yes No Scheduled FY 18
 Is there an accumulation of trash, debris and/or litter to be removed? Yes No Scheduled
 Any signs of vandalism that could affect the pond performance? Yes No
 Any signs of pollution in standing water? Yes No No standing water: _____
 Abnormally high water level? Yes No Erosion at high water mark? Yes No
 Other comments: Good

Structural Components

Are to pipes/inlets going into or out of the pond clogged or obstructed? Yes No: _____
 Is the outfall channel from the pond functioning appropriately? Yes No: _____
 Is the inflow trickle channel working properly? Yes No: _____
 Is the detention structure orifice or overflow obstructed? Yes No
 Are the frames and covers with the outfall channel in good condition? Yes No: _____
 Other Comments: _____

Plan of Action

- Notify property owner of the inspection by certified mail within two days of inspection.
- Request an acknowledgement within 5 days of receipt of inspection report
- Request a plan of action within two weeks of receipt of inspection report
- Require maintenance noted within two months of receipt of inspection report.
- Continue Normal Inspection Schedule



Post-Construction Detention/Retention O&M Report
 Opelika Engineering Department—Stormwater Management
 700 Fox Trail, Opelika, AL 36801
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HUA 102

Inspection Information

Pond Number: 126 Inspection Type: Initial Routine Follow-up
 Pond location: Manott Inu - west side
 Inspector Name: Hanus Date: 3 / 1 / 20 16
 Property owner: RTJ Contact: _____
 Phone _____ E-mail: _____
 Weather Conditions: Clear Cloudy Rain
 Previous Rainfall: 0 in on _____

Pond Condition

Is the detention area accessible for maintenance equipment? Yes No: _____
 Does the pond show signs of settling, sloughing or other problems? Yes No:
 Does the slopes or spillway show signs of erosion or instability? Yes No:
 Is there evidence of animals that could contribute to pond instability? Yes No:
 Does the grass need mowing? Yes No: Are there areas that need to be grassed? Yes No:
 Does brush or debris need clearing, i.e. cattails, trees willows? Yes No: Scheduled _____
 Is there an accumulation of trash, debris and/or litter to be removed? Yes No: Scheduled _____
 Any signs of vandalism that could affect the pond performance? Yes No:
 Any signs of pollution in standing water? Yes No: No standing water: _____
 Abnormally high water level? Yes No: Erosion at high water mark? Yes No:
 Other comments: Excellent

Structural Components

Are to pipes/inlets going into or out of the pond clogged or obstructed? Yes No:
 Is the outfall channel from the pond functioning appropriately? Yes No: _____
 Is the inflow trickle channel working properly? Yes No: _____
 Is the detention structure orifice or overflow obstructed? Yes No:
 Are the frames and covers with the outfall channel in good condition? Yes No: _____
 Other Comments: _____

Plan of Action

- Notify property owner of the inspection by certified mail within two days of inspection.
- Request an acknowledgement within 5 days of receipt of inspection report
- Request a plan of action within two weeks of receipt of inspection report
- Require maintenance noted within two months of receipt of inspection report.
- Continue Normal Inspection Schedule.



5956/57
Post-Construction Detention/Retention O&M Report

Opelika Engineering Department—Stormwater Management

700 Fox Trail, Opelika, AL 36801

(334) 705-5150, (334) 705-5400

Purpose: The purpose of this form is to document the observations made during an investigation of post construction/maintenance BMP review located within the City's MS4 maintained by the property owner.

HUA 102

Inspection Information

Pond Number: 114 Inspection Type: Initial Routine Follow-up
Pond location: 280' behind shopping center
Inspector Name: Hanna Date: 7/29/2016
Property owner: FCO LLC Contact: 334-415-1999 Egypt Crossing LLC
Phone: _____ E-mail: _____ 2220 Plainfield Pike
Weather Conditions: Clear Cloudy Rain Cranton RI
Previous Rainfall: 0 in on _____ 02421

Pond Condition

Is the detention area accessible for maintenance equipment? Yes No: _____
Does the pond show signs of settling, sloughing or other problems? Yes No:
Does the slopes or spillway show signs of erosion or instability? Yes No:
Is there evidence of animals that could contribute to pond instability? Yes No:
Does the grass need mowing? Yes No Are there areas that need to be grassed? Yes No
Does brush or debris need clearing, i.e. cattails, trees willows? Yes No Scheduled _____
Is there an accumulation of trash, debris and/or litter to be removed? Yes No Scheduled _____
Any signs of vandalism that could affect the pond performance? Yes No:
Any signs of pollution in standing water? Yes No No standing water: yes
Abnormally high water level? Yes No Erosion at high water mark? Yes No:
Other comments: grown up trees provide a natural screen to back of the shopping center

Structural Components

Are pipes/inlets going into or out of the pond clogged or obstructed? Yes No:
Is the outfall channel from the pond functioning appropriately? Yes No: _____
Is the inflow trickle channel working properly? Yes No: _____
Is the detention structure orifice or overflow obstructed? Yes No:
Are the frames and covers with the outfall channel in good condition? Yes No:
Other Comments: big liar

Plan of Action

- Notify property owner of the inspection by certified mail within two days of inspection.
- Request an acknowledgement within 5 days of receipt of inspection report
- Request a plan of action within two weeks of receipt of inspection report
- Require maintenance noted within two months of receipt of inspection report.
- Continue Normal Inspection Schedule.

Hanna - Trickle Channel



5455

Post-Construction Detention/Retention O&M Report
Opelika Engineering Department—Stormwater Management
700 Fox Trail, Opelika, AL 36801
(334) 705-5150, (334) 705-5400

Purpose: The purpose of this form is to document the observations made during an investigation of post construction/maintenance BMP review located within the City's MS4 maintained by the property owner.

HUA 102

Inspection Information

Pond Number: 115
Inspection Type: [X] Routine
Pond location: Bayangles + Deep Run
Inspector Name: [Signature]
Date: 2/29/2016
Property owner: RCG LLC
Contact: 334-10-...
Weather Conditions: [X] Clear
Previous Rainfall: 0 in

Pond Condition

Is the detention area accessible for maintenance equipment? [X] Yes
Does the pond show signs of settling, sloughing or other problems? [X] No
Does the slopes or spillway show signs of erosion or instability? [X] Yes
Is there evidence of animals that could contribute to pond instability? [X] No
Does the grass need mowing? [X] No
Are there areas that need to be grassed? [X] Yes
Does brush or debris need clearing... [X] No
Is there an accumulation of trash... [X] No
Any signs of vandalism... [X] No
Any signs of pollution... [X] No
Abnormally high water level? [X] No
Erosion at high water mark? [X] No
Other comments: Outlet is underground pipe

Structural Components

Are to pipes/inlets going into or out of the pond clogged or obstructed? [X] No
Is the outfall channel from the pond functioning appropriately? [X] Yes
Is the inflow trickle channel working properly? [X] No
Is the detention structure orifice or overflow obstructed? [X] No
Are the frames and covers with the outfall channel in good condition? [X] Yes

Plan of Action

- [X] Notify property owner of the inspection by certified mail within two days of inspection.
Request an acknowledgement within 5 days of receipt of inspection report
Request a plan of action within two weeks of receipt of inspection report
Require maintenance noted within two months of receipt of inspection report.
[X] Continue Normal Inspection Schedule.



45V/22/13

Post-Construction Detention/Retention O&M Report
Opelika Engineering Department—Stormwater Management
700 Fox Trail, Opelika, AL 36801
(334) 705-5150, (334) 705-5400

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HUA 102

Inspection Information

Pond Number: 116 Inspection Type: [] Initial [X] Routine [] Follow-up
Pond location: 2804 Pippinway
Inspector Name: Harvill Date: 2/29/2016
Property owner: RCS-LLC Contact: TDAK inc same with Ferguson pr
Huntsville, AL 35758
Weather Conditions: [X] Clear [] Cloudy [] Rain
Previous Rainfall: 0 in on

Pond Condition

Is the detention area accessible for maintenance equipment? [X] Yes [] No
Does the pond show signs of settling, sloughing or other problems? [] Yes [X] No
Does the slopes or spillway show signs of erosion or instability? [] Yes [X] No
Is there evidence of animals that could contribute to pond instability? [] Yes [X] No
Does the grass need mowing? [] Yes [X] No Are there areas that need to be grassed? [] Yes [X] No
Does brush or debris need clearing, i.e. cattails, trees willows? [X] Yes [] No Scheduled
Is there an accumulation of trash, debris and/or litter to be removed? [X] Yes [] No Scheduled
Any signs of vandalism that could affect the pond performance? [] Yes [X] No
Any signs of pollution in standing water? [] Yes [X] No No standing water:
Abnormally high water level? [] Yes [X] No Erosion at high water mark? [] Yes [X] No
Other comments: Row at Golden Coral

Structural Components

Are to pipes/inlets going into or out of the pond clogged or obstructed? [] Yes [X] No
Is the outfall channel from the pond functioning appropriately? [X] Yes [] No: underground
Is the inflow trickle channel working properly? [] Yes [X] No
Is the detention structure orifice or overflow obstructed? [] Yes [X] No
Are the frames and covers with the outfall channel in good condition? [X] Yes [] No
Other Comments: underground out let

Plan of Action

- [X] Notify property owner of the inspection by certified mail within two days of inspection.
[] Request an acknowledgement within 5 days of receipt of inspection report
[] Request a plan of action within two weeks of receipt of inspection report
[] Require maintenance noted within two months of receipt of inspection report.
[X] Continue Normal Inspection Schedule.



Post-Construction Detention/Retention O&M Report
 Opelika Engineering Department—Stormwater Management
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HUA 03-130

Inspection Information

Pond Number: 78 Inspection Type: Initial Routine Follow-up
 Pond location: Bowlbyville Pkwy Marthas Court
 Inspector Name: Hamm Date: 2, 26, 2016
 Property owner: _____ Contact: _____
 Phone _____ E-mail: _____
 Weather Conditions: Clear Cloudy Rain
 Previous Rainfall: 0 in on _____

Pond Condition

Is the detention area accessible for maintenance equipment? Yes No: _____
 Does the pond show signs of settling, sloughing or other problems? Yes No: _____
 Does the slopes or spillway show signs of erosion or instability? Yes No: _____
 Is there evidence of animals that could contribute to pond instability? Yes No: _____
 Does the grass need mowing? Yes No Are there areas that need to be grassed? Yes No
 Does brush or debris need clearing, i.e. cattails, trees willows? Yes No Scheduled
 Is there an accumulation of trash, debris and/or litter to be removed? Yes No Scheduled
 Any signs of vandalism that could affect the pond performance? Yes No
 Any signs of pollution in standing water? Yes No No standing water: _____
 Abnormally high water level? Yes No Erosion at high water mark? Yes No
 Other comments: _____

Structural Components

Are the pipes/inlets going into or out of the pond clogged or obstructed? Yes No
 Is the outfall channel from the pond functioning appropriately? Yes No: _____
 Is the inflow trickle channel working properly? Yes No: _____
 Is the detention structure orifice or overflow obstructed? Yes No
 Are the frames and covers with the outfall channel in good condition? Yes No: _____
 Other Comments: _____

Plan of Action

- Notify property owner of the inspection by certified mail within two days of inspection.
- Request an acknowledgement within 5 days of receipt of inspection report
- Request a plan of action within two weeks of receipt of inspection report
- Require maintenance noted within two months of receipt of inspection report.
- Continue Normal Inspection Schedule.



Post-Construction Detention/Retention O&M Report
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Purpose: The purpose of this form is to document the observations made during an investigation of post construction/maintenance BMP review located within the City's MS4 maintained by the property owner.

HUA 03130 021107 Hallenwacker Crack C

Inspection Information

Pond Number: 79 Inspection Type: Initial Routine Follow-up
 Pond location: 2300 Lafayette Pkwy #202 Martha's Court
 Inspector Name: Harris Date: 2/26/2016
 Property owner: _____ Contact: _____
 Phone _____ E-mail: _____
 Weather Conditions: Clear Cloudy Rain
 Previous Rainfall: 0 in on _____

Pond Condition

Is the detention area accessible for maintenance equipment? Yes No: _____
 Does the pond show signs of settling, sloughing or other problems? Yes No:
 Does the slopes or spillway show signs of erosion or instability? Yes No:
 Is there evidence of animals that could contribute to pond instability? Yes No:
 Does the grass need mowing? Yes No: Are there areas that need to be grassed? Yes No:
 Does brush or debris need clearing, i.e. cattails, trees willows? Yes No: Scheduled _____
 Is there an accumulation of trash, debris and/or litter to be removed? Yes No: Scheduled _____
 Any signs of vandalism that could affect the pond performance? Yes No:
 Any signs of pollution in standing water? Yes No: No standing water: _____
 Abnormally high water level? Yes No: Erosion at high water mark? Yes No:
 Other comments: _____

Structural Components

Are the pipes/inlets going into or out of the pond clogged or obstructed? Yes No:
 Is the outfall channel from the pond functioning appropriately? Yes No: _____
 Is the inflow trickle channel working properly? Yes No:
 Is the detention structure orifice or overflow obstructed? Yes No:
 Are the frames and covers with the outfall channel in good condition? Yes No: _____
 Other Comments: 24" ree had fallen on fence on south

Plan of Action

- Notify property owner of the inspection by certified mail within two days of inspection.
- Request an acknowledgement within 5 days of receipt of inspection report
- Request a plan of action within two weeks of receipt of inspection report
- Require maintenance noted within two months of receipt of inspection report.
- Continue Normal Inspection Schedule.



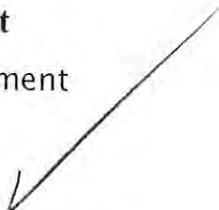
Post-Construction Detention/Retention O&M Report

Opelika Engineering Department—Stormwater Management

700 Fox Trail, Opelika, AL 36801

(334) 705-5150, (334) 705-5400

HVA 107



Purpose: The purpose of this form is to document the observations made during an investigation of post construction/maintenance BMP review located within the City's MS4 maintained by the property owner.

Inspection Information

Pond Number: SwRet 88 Inspection Type: Initial Routine Follow-up

Pond location: North Park Dr

Inspector Name: JIF Date: 1/29/2016

Property owner: COO Contact: Pharokul

Phone: _____ E-mail: _____

Weather Conditions: Clear Cloudy Rain

Previous Rainfall: 0 in on _____

Pond Condition

Is the detention area accessible for maintenance equipment? Yes No: _____

Does the pond show signs of settling, sloughing or other problems? Yes No: _____

Does the slopes or spillway show signs of erosion or instability? Yes No: _____

Is there evidence of animals that could contribute to pond instability? Yes No: _____

Does the grass need mowing? Yes No Are there areas that need to be grassed? Yes No

Does brush or debris need clearing, i.e. cattails, trees willows? Yes No Scheduled 2018

Is there an accumulation of trash, debris and/or litter to be removed? Yes No Scheduled

Any signs of vandalism that could affect the pond performance? Yes No

Any signs of pollution in standing water? Yes No No standing water: _____

Abnormally high water level? Yes No Erosion at high water mark? Yes No

Other comments: _____

Structural Components

Are to pipes/inlets going into or out of the pond clogged or obstructed? Yes No: UN : OK

Is the outfall channel from the pond functioning appropriately? Yes No: _____

Is the inflow trickle channel working properly? Yes No: _____

Is the detention structure orifice or overflow obstructed? Yes No: _____

Are the frames and covers with the outfall channel in good condition? Yes No: _____

Other Comments: _____

Plan of Action

- ___ Notify property owner of the inspection by certified mail within two days of inspection.
- ___ Request an acknowledgement within 5 days of receipt of inspection report
- ___ Request a plan of action within two weeks of receipt of inspection report
- ___ Require maintenance noted within two months of receipt of inspection report.



Post-Construction Detention/Retention O&M Report
 Opelika Engineering Department—Stormwater Management
 700 Fox Trail, Opelika, AL 36801
 (334) 705-5150, (334) 705-5400

Purpose: The purpose of this form is to document the observations made during an investigation of post construction/maintenance BMP review located within the City's MS4 maintained by the property owner.

HUA 107

Inspection Information

Pond Number: SwRet 68 Inspection Type: Initial Routine Follow-up
 Pond location: Northpark Pharmatone
 Inspector Name: SH Date: 1 / 19 20 16
 Property owner: Pharmatone Contact: _____
 Phone _____ E-mail: _____
 Weather Conditions: Clear Cloudy Rain
 Previous Rainfall: 0 in on _____

Pond Condition

Is the detention area accessible for maintenance equipment? Yes No: _____
 Does the pond show signs of settling, sloughing or other problems? Yes No _____
 Does the slopes or spillway show signs of erosion or instability? Yes No _____
 Is there evidence of animals that could contribute to pond instability? Yes No _____
 Does the grass need mowing? Yes No Are there areas that need to be grassed? Yes No _____
 Does brush or debris need clearing, i.e. cattails, trees willows? Yes No Scheduled FY 18
 Is there an accumulation of trash, debris and/or litter to be removed? Yes No Scheduled _____
 Any signs of vandalism that could affect the pond performance? Yes No _____
 Any signs of pollution in standing water? Yes No No standing water: _____
 Abnormally high water level? Yes No Erosion at high water mark? Yes No: _____
 Other comments: Good

Structural Components

Are the pipes/inlets going into or out of the pond clogged or obstructed? Yes No: _____
 Is the outfall channel from the pond functioning appropriately? Yes No: _____
 Is the inflow trickle channel working properly? Yes No: _____
 Is the detention structure orifice or overflow obstructed? Yes No _____
 Are the frames and covers with the outfall channel in good condition? Yes No: _____
 Other Comments: _____

Plan of Action

- Notify property owner of the inspection by certified mail within two days of inspection.
- Request an acknowledgement within 5 days of receipt of inspection report
- Request a plan of action within two weeks of receipt of inspection report
- Require maintenance noted within two months of receipt of inspection report.
- Continue Normal Inspection Schedule.



Post-Construction Detention/Retention O&M Report
 Opelika Engineering Department—Stormwater Management
 700 Fox Trail, Opelika, AL 36801
 (334) 705-5150, (334) 705-5400

Purpose: The purpose of this form is to document the observations made during an investigation of post construction/maintenance BMP review located within the City's **MS4 maintained by the property owner.**

HUA 102

Inspection Information

Pond Number: 126 Inspection Type: Initial Routine Follow-up
 Pond location: Memott Inn - west side
 Inspector Name: Harris Date: 3 / 1 / 20 16
 Property owner: RTJ Contact: _____
 Phone _____ E-mail: _____
 Weather Conditions: Clear Cloudy Rain
 Previous Rainfall: 0 in on _____

Pond Condition

Is the detention area accessible for maintenance equipment? Yes No: _____
 Does the pond show signs of settling, sloughing or other problems? Yes No: _____
 Does the slopes or spillway show signs of erosion or instability? Yes No: _____
 Is there evidence of animals that could contribute to pond instability? Yes No: _____
 Does the grass need mowing? Yes No: Are there areas that need to be grassed? Yes No:
 Does brush or debris need clearing, i.e. cattails, trees willows? Yes No: Scheduled
 Is there an accumulation of trash, debris and/or litter to be removed? Yes No: Scheduled
 Any signs of vandalism that could affect the pond performance? Yes No: _____
 Any signs of pollution in standing water? Yes No: No standing water: _____
 Abnormally high water level? Yes No: Erosion at high water mark? Yes No: _____
 Other comments: Excellent

Structural Components

Are to pipes/inlets going into or out of the pond clogged or obstructed? Yes No: _____
 Is the outfall channel from the pond functioning appropriately? Yes No: _____
 Is the inflow trickle channel working properly? Yes No: _____
 Is the detention structure orifice or overflow obstructed? Yes No: _____
 Are the frames and covers with the outfall channel in good condition? Yes No: _____
 Other Comments: _____

Plan of Action

- Notify property owner of the inspection by certified mail within two days of inspection.
- Request an acknowledgement within 5 days of receipt of inspection report
- Request a plan of action within two weeks of receipt of inspection report
- Require maintenance noted within two months of receipt of inspection report.
- Continue Normal Inspection Schedule.



Post-Construction Detention/Retention O&M Report

Opelika Engineering Department—Stormwater Management

700 Fox Trail, Opelika, AL 36801

(334) 705-5150, (334) 705-5400

Purpose: The purpose of this form is to document the observations made during an investigation of post construction/maintenance BMP review located within the City's MS4 maintained by the property owner.

HUA 102

Inspection Information

WET

Pond Number: 125 Inspection Type: Initial [X] Routine [X] Follow-up []

Pond location: East of RTJ Marriott under power lines

Inspector Name: Harris Date: 3/1/2016

Property owner: RTJ Contact:

Phone E-mail:

Weather Conditions: [X] Clear [] Cloudy [] Rain

Previous Rainfall: 0 in on

135 So Union St. 36804

Pond Condition

Is the detention area accessible for maintenance equipment? [X] Yes No:

Does the pond show signs of settling, sloughing or other problems? Yes [] No: [X]

Does the slopes or spillway show signs of erosion or instability? Yes [] No: [X]

Is there evidence of animals that could contribute to pond instability? Yes [] No: [X]

Does the grass need mowing? [X] Yes No Are there areas that need to be grassed? Yes [] No: [X]

Does brush or debris need clearing, i.e. cattails, trees willows? [X] Yes No Scheduled

Is there an accumulation of trash, debris and/or litter to be removed? [X] Yes No Scheduled

Any signs of vandalism that could affect the pond performance? Yes [] No: [X]

Any signs of pollution in standing water? Yes [] No standing water: [X]

Abnormally high water level? [X] Yes No Erosion at high water mark? Yes [] No: [X]

Other comments: intake needs cleaning

Structural Components

Are to pipes/inlets going into or out of the pond clogged or obstructed? [X] Yes No:

Is the outfall channel from the pond functioning appropriately? [X] Yes No:

Is the inflow trickle channel working properly? [X] Yes No:

Is the detention structure orifice or overflow obstructed? [X] Yes No:

Are the frames and covers with the outfall channel in good condition? [X] Yes No:

Other Comments:

Plan of Action

- Notify property owner of the inspection by certified mail within two days of inspection.
Request an acknowledgement within 5 days of receipt of inspection report
Request a plan of action within two weeks of receipt of inspection report
Require maintenance noted within two months of receipt of inspection report.
Continue Normal Inspection Schedule.

125 trash

Opelika Water Board

Harris, John M

From: Harris, John M
Sent: Thursday, March 03, 2016 10:20 AM
To: 'Alan Lee'
Subject: SW retention pond 125
Attachments: 125s.JPG; 125trash.JPG

Alan:

I am transmitting to you the need to conduct maintenance on detention pond 125 which is located on the east side of the RTJ Marriott Hotel At Grand National.

The pond is a water holding pond under the large power line. Public records show the OWB is the property owner for 80% of the pond and the outlet orifice is within your ownership line.

The orifice is obstructed and has accumulated trash. The "125 pix" shows it is dangerously full. It should dewater to protect the dam from overflow. A mowing of the pond would also be pertinent.

I am attaching pictures for your viewing.

Regards,

John

cc: file

John M. Harris

You can't expect what you don't inspect!

QCI # 4431
Watershed Coordinator

City of Opelika

Office 334-705-5454

Fax 334-705-5452

jharris@opelika-al.gov

700 Fox Trail

P.O. Box 390

Opelika, Alabama 36801



Engineering Department
City of Opelika, Alabama
700 Fox Trail
Opelika, Alabama 36801
Phone: 334.705.5450 Fax: 334.705.5452

Date March 1, 2016

Address: Alabama Highway 280 & Pepperell Parkway, Opelika, Alabama

Re: Post-Construction Detention Inspection

Project Name:

Project Owner: 33418 Egypt Crossing LLC
2220 Plainfield Pike

Gentlemen:

The Alabama Department of Environmental Management (ADEM) requires that all municipalities in the State of Alabama develop and implement a comprehensive Storm water Management Program (SWMP) that addresses six (6) minimum control measures, including post-construction runoff control. One of these control measures is management of post-construction detention ponds. Regular maintenance activities are needed to maintain the function of storm water practices. The City is required to monitor and inspect the operation and maintenance of these pond systems annually. This is done in accordance with ADEM requirements, the SWMP, the Alabama Handbook on Erosion and Sediment Control and Chapter 7, Article IV of the City of Opelika's *Code of Ordinances*.

You are required to maintain and operate the storm water detention pond located on your property. This includes conducting routine inspections and submitting periodic annual maintenance reports to the City. Failure to properly maintain and operate the storm water detention pond, including required documentation, will result in a violation of the City *Code of Ordinances* enforceable by civil penalties, criminal penalties or both. Furthermore, a malfunctioning storm water detention pond may cause impacts to adjacent properties such as flooding, erosion or a discharge of storm water pollutants. These impacts may also violate state and federal laws and therefore be subject to additional civil fines and/or criminal actions.

On Tuesday March 1, City personnel performed an initial inspection of the above-referenced storm water detention pond and identified several deficiencies. See the picture on page 2 that includes 3 detention basins circled in yellow below.



Basin 114 is a deep basin that requires clearing the interior of the basin.
Basin 115 needs grass re-established on the north rim.
Basin 116 the interior of the basin needs clearing.

Our goal is to ensure proper maintenance and documentation of the storm water detention pond deeded on your property. If you are not the financially responsible party or believe that you have received this letter in error, please contact us as well. For questions, contact our Stormwater Coordinator John Harris at 334-705-5454 or by email at jharris@opelika-al.gov.

Contact me immediately if you wish to set up an onsite inspection of your property. Thank you for your cooperation in this effort to protect our local waterways. Failure to comply with relevant City and ADEM requirements may result in additional enforcement actions. Managing storm water run-off and its effects on our local water resources takes a partnership.

Thank you for your attention in this matter, and I look forward to your response.

Sincerely,



Scott H. Parker, P.E.
City of Opelika Engineer



Enclosure



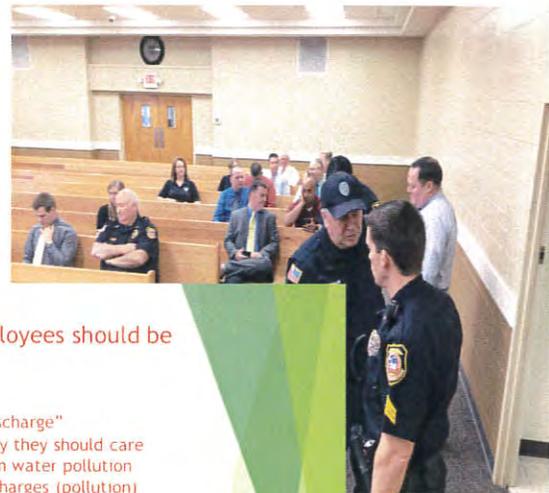
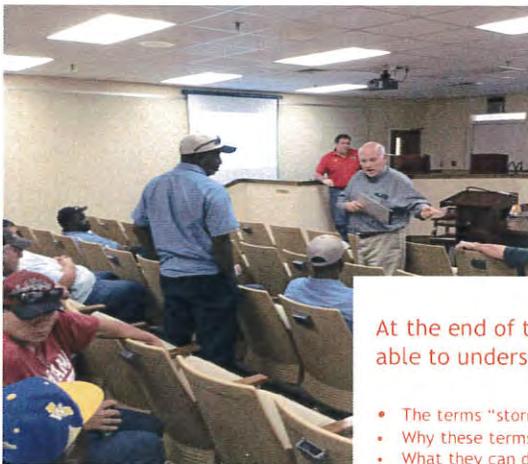


Appendix F

Pollution Prevention/Good Housekeeping for Municipal Operations



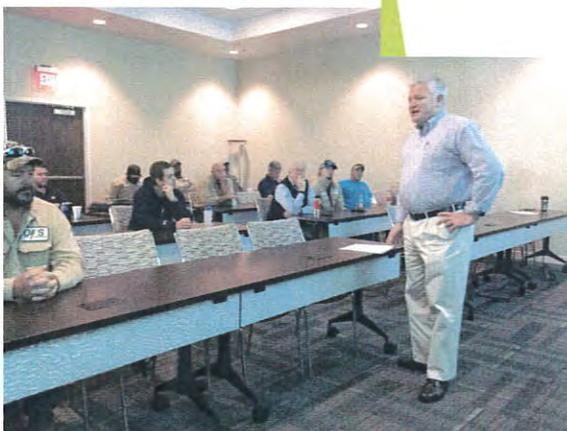
F5. Employee Training for Illicit Discharge Sign-in and Presentation Documentation



At the end of this training, employees should be able to understand:

- The terms "stormwater" and "illicit discharge"
- Why these terms are important and why they should care
- What they can do to help prevent storm water pollution
- How to recognize and report illicit discharges (pollution)

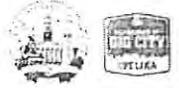
IDDE TRAINING



Solid Waste

Employee Training: Recognizing and Reporting Illicit Discharges
 Sign-In Sheet
 John M. Harris
 11/20/2015

Opelika, AL.



Opelika, AL.

Name	Position	Department	Email	Phone Number
Bob Payne	Supper	S/W	X	X
John Vello	Driver	S/W		
Edo Waltham	Driver	S/W	X	
Shelly Lee	Driver	S/W		
Tony Wilder	Driver	S/W		
Rory Hughes	Recycling/Driver	S/W		
Tommy	Driver	S/W		
Oliver Fuller	Driver	S/W		
Steve Moore	Raker	S/W		
Beverly D. Eason	Refuse Operator	S/W		
Rod Welch	operator switch	S/W		
Kelvin Pitts	Utility Service work	S/W		
Robert Hain	operator	S/W		
Chris J	Operator	S/W		

OPD

Employee Training: Recognizing and Reporting Illicit Discharges
 Sign-In Sheet
 John M. Harris
 12/8/2015
 Opelika, AL.



Name	Position	Department	Email	Phone Number
DAVE JUNIOR	DARIN	P.D.	OPELIKA DARIN@ OPELIKA.GOV	(334) 705-5860
Michael Hewitt	PATROL	OPELIKA PD	Mhewitt@ Opelika.gov	334-705-5200
TERRI McCALL	ADMIN Sgt.	Opelika PD	tmccall@opelika- AL.GOV	
Patricia Hancock	'PATROLMAN'			
Merry Allen	Record Clerk	Opelika PD		
JOHNATHAN WILKERSON	PATROL	OPELIKA PD		
ELLIOTT D. GRACE	SERGEANT	OPELIKA P.D		
Sergant Andrews	com. operator	Opelika PD		
FRANK CRNKO	SERGEANT	OPELIKA P.D		
DANIEL MOSS	PATROL	OPELIKA PD		
Cynthia Breedlove	COMMUNICATION	OPD		
Brian Hipp	Patrol	OPD		
Gene Williams	PATROL	OPD		
ROB COOK	LIEUTENANT	OPD		

OPD

9/10

Employee Training: Recognizing and Reporting Illicit Discharges
Sign-In Sheet
John M. Harris
12/1/2015

Opelika, Al.



Opelika, AL.

Name	Position	Department	Email	Phone Number
ALEX MIRANDA	DETECTIVE	OPD		
JUSTIN FROST	DETECTIVE	OPD		
Joan Hussey	Admin. Coord.	OPD		
KASEY BROWN	DETS	OPD		
BILLY R. SMITH	TECHS	OPD		
JOHNATHAN CLIFTON	DETECTIVE	OPD		
MARLO MUSBINE	DETECTIVE	OPD		
DAVID LANE	DETECTIVE	OPD		
ALBERT WILSON	DETECTIVE	OPD		
John Hester	Det.	OPD		
Cecilia Ben	Enforcer	OPD		
Terry McManamin	Det	OPD		
JASON GREER	Det	OPD		
Charles T. Clark	Admin Capt	OPD		

OPD

9:30

Employee Training: Recognizing and Reporting Illicit Discharges
Sign-In Sheet
John M. Harris
12/1/2015

Opelika, AL



Opelika, AL

Name	Position	Department	Email	Phone Number
Charles Willis	Janitor work	STAFF SERVICES		
Daniel Mettner	DEPT. TRAINING OFF SPECIAL SERVICES	POLICE		
SHANE HEALEY	CAPTAIN	POLICE		
BEN BLACKBURN	TRAINING SUPERVISOR	POLICE		
Bob Kelly	Asst Chief	Police		
Britni Adams	dispatching	police		
Koua Cash	COMMUNICATIONS	POLICE		
MICHAEL RODDEN	DETECTIVE	POLICE		
Ken Miller	PATROL	POLICE		
BREUNER	PATROL	POLICE		
TERRY HENLEY	PATROL	POLICE		
ETHAN KING	PATROL	POLICE		
ALAN BARTON	PATROL	POLICE		
MICHAEL D. SMITH	PATROL	POLICE		

OPD

6:00

Employee Training: Recognizing and Reporting Illicit Discharges

Sign-In Sheet

John M. Harris

12 / 2 / 2015

Opelika, AL.

Opelika, Al.



Name	Position	Department	Email	Phone Number
CRAIG VICKERS	POLICE	OPD	XXXXXXXXXX	
JUSTIN ALEXANDER	POLICE / DETECTIVE	OPD		
ROBERT B. BUGG	POLICE	OPD		
BILL BUCE	POLICE	OPD		
ALFRED JOHNSON	DETECTIVE POLICE	OPD		
Wretchen Coats	Dispatcher	OPD		
Thomas Meadows	Police	OPD		
BRANDON HURT	Police	OPD		
Robert Franko	Police	OPD		
<u>JOSEPH HILVER</u>	POLICE	OPD		
Bobby Kilgore	Police Lt.	OPD		
BEN JONES	POLICE SGT.	OPD		
Stephanie Simpson	Dispatcher	OPD		
SAGON COATS	POLICE OFFICER	OPD		

OPD

Employee Training: Recognizing and Reporting Illicit Discharges
Sign-In Sheet

John M. Harris

12 / 7 / 2015

Opelika, AL.

Opelika, AL.



Name	Position	Department	Email	Phone Number
DeShawn Digley	Communications	OPD	/	/
Wade Foster	PATROL	OPD		
Richard Converse	SGT/PATROL	OPD		
Jacob Young	Patrol	OPD		
Fred Griffin	Patrol	OPD		
JAMES DANIEL	PATROL	OPD		
ZACH CAUSLAND	PATROL	OPD		
Jordan Duncan	PATROL	OPD		
Ian Thomas	COMMUNICATIONS	OPD		
Josh Smith	PATROL	OPD		
Tony Amerson	Patrol	OPD		
Jennette Bailey	Communications	OPD		
Mestre Alex	PATROL	OPD		
Leverette	PATROL	OPD		

Pub wks

Employee Training: Recognizing and Reporting Illicit Discharges Sign-In Sheet

John M. Harris
12/9/2015
Opelika, AL.

Opelika, AL.



Name	Position	Department	Email	Phone Number
Scott Parker	ENGINEER	ENGINEERING		
John Gwin	Asst Eng	Eng		
Jenny Kelley	Planning	PLANNING		
John Harris	Stormwater	ENG		
MARSHY OGREW	PLANNING	PLAN.		
James Kirk	INSPECTOR	Building Insp.		
David Newman	INSPECTOR	INSPECTION		
BRADY BOLLOK	Surveyor	ENG.		
David Chapman	Inspector	Bldg Insp		
Rachel J.	Planning & Zoning	PL		
USA Theift	Planning	PL		
Jeff Koppman	Inspector	Inspection		
BILL OTT	CUST. SERV.	INSPECTION		
B.J. Lowery	CUST. SERV.	INSPECTION		

Wanda Harris ~~Engineering~~ Engineering Admin.

SAFETY MEETING

City of Opelika
Name of Municipality
Stress in the workplace / Illicit Discharge
Topic Discussed

12/16/15
Date

Power Service
Location

BRANDON WYLIE
Conducted by: Print name

[Signature]
Signature of Person Conducting Training

John M. Harris

ATTENDEES

[Signature]

Print Name
Renton Lee
John Askew
Daniel Ward
Shane Ward
RONNIE REESE
BRANDON HARRISON
Greg Callaway
Thad Jones
Larry Prince
Tommy Howard

Signature
Renton Lee
John Askew
Daniel Ward
Shane Ward
Ronnie Reese
Brandon Harrison
Greg Callaway
Thad Jones
Larry Prince
Tommy Howard

Items Requiring Research or Follow up:

NOTE: This document is not intended to be legal advice. It does not identify all the issues surrounding the particular topic. Public agencies are encouraged to review their procedures with an expert or an attorney who is knowledgeable about the topic. Reliance on this information is at the sole risk of the user.

O.P.S.

12-16-15

Employee Training: Recognizing and Reporting Illicit Discharges

Sign-In Sheet

John M. Harris

12 / 16 / 2015

Opelika, AL.

Opelika, Al.



Name	Position	Department	Email	Phone Number
Harry Prince	Distribution Engineer Rep	OPS		
Jessica				
DAVID HORTON	DIRECTOR	OPS		
Derek Lee	Asst. Dir.	OPS		

SAFETY MEETING

Name of Municipality	
Topic Discussed	
Date	Location
Conducted by: Print name	Signature of Person Conducting Training

ATTENDEES

Print Name	Signature
<u>Zach Hester</u>	<u>[Signature]</u>
<u>Gret Payson</u>	<u>[Signature]</u>
<u>Kent Hell...</u>	<u>[Signature]</u>
<u>David Ash</u>	<u>[Signature]</u>
<u>Shane Childs</u>	<u>[Signature]</u>
<u>Terry Coxwell</u>	<u>[Signature]</u>
<u>DAVID HORTON</u>	<u>[Signature]</u>
<u>Adam Pierce</u>	<u>[Signature]</u>
<u>Cory Burke</u>	<u>[Signature]</u>
<u>Rusty Robinson</u>	<u>[Signature]</u>

Items Requiring Research or Follow up:

NOTE: This document is not intended to be legal advice. It does not identify all the issues surrounding the particular topic. Public agencies are encouraged to review their procedures with an expert or an attorney who is knowledgeable about the topic. Reliance on this information is at the sole risk of the user.

SAFETY MEETING

Name of Municipality	
Topic Discussed	
Date	Location
Conducted by: Print name	Signature of Person Conducting Training

ATTENDEES

Print Name

Signature

Nebel Hallmark
Derek Lee
Don Boyd
Mark Johnson
Jessica J. Hechett
Cole Johnson
Rusty Hornsby
Chris Wisner

[Handwritten signatures]
Derek Lee
Don Boyd
Jessica J. Hechett
Cole Johnson
Rusty Hornsby
Chris Wisner

Items Requiring Research or Follow up:

NOTE: This document is not intended to be legal advice. It does not identify all the issues surrounding the particular topic. Public agencies are encouraged to review their procedures with an expert or an attorney who is knowledgeable about the topic. Reliance on this information is at the sole risk of the user.

Opelika City Admin

Employee Training: Recognizing and Reporting Illicit Discharges
Sign-In Sheet

John M. Harris

12/18/2015

Opelika, AL.

10:00

Opelika, Al.



Name	Position	Department	Email	Phone Number
STANLEY GARRETT	DET.	OPD		
Larry Gray	City Council	City		
Jane Owens	OPS	City		
MARY F. HEAD	EVS	Purchasing		
MARTY PAULSON	SGT.	OPD		
BARBARA ARRINGTON	ADM	Mayor		
Dorian Smith	City Council	City		
Lou Malloy	IT Support	IT		
Robert Holes	System Admin	IT		
William May	Warehouse	Purchasing		
Tyler Chattee	Economic Dev. Project	Econ. Dev.		
Ashley Smith	Coordinator	Economic Development		
Rebecca Walls	Mgr. of Cust. Serv	OPS		
Jason Hughes	Senior Cust. Serv.	OPS		

Opelika City Admin

Employee Training: Recognizing and Reporting Illicit Discharges
Sign-In Sheet

John M. Harris

12/18/2015

10:00

Opelika, AL.

Opelika, Al.



Name	Position	Department	Email	Phone Number
Heather Middleton	HR Analyst	HR		
Lisa McLeod	HR Director			
Tom Aycock	IT/GIS	IT		
Beth Hillier	Rev Asst	Rev		
James Bush	Graphic Artist	IT		
TJ White	IT	IT		
Traci Rushing	CSR	OPS		
Jill Jones	Legal Admin	Legal		
Guy Gunter	City Attorney	Legal		
LAWORRIS JONES	BUYER II	PURCHASING		
Brian Kriel	Engineer	OPS		
Amyela Norred	Buyer A	Purchasing		
Eddie Sout	-	Council		
City Council	City Council	"		

Opelika City Admin

Employee Training: Recognizing and Reporting Illicit Discharges
Sign-In Sheet

John M. Harris

12/18/2015

10:00

Opelika, AL.

Opelika, AL.



Name	Position	Department	Email	Phone Number
Stephen Duro	CTO	IT		
JACKIE RAB, JR		IT		
PATSY JONE	City Council			
Martha E Wright	Code Compliance	Office Revenue		
		32		

Opelika City Admin

Employee Training: Recognizing and Reporting Illicit Discharges
Sign-In Sheet

John M. Harris

12/18/2015

2:00

Opelika, AL.

Opelika, Al.



Name	Position	Department	Email	Phone Number
Bishop Moss	Knuckle Boom	Solid Waste	X	X
Tara Young		IT		
Alexis S. Smith	IT Manager	OPS		
Hobby Dambert	Admin asst.	Econ Dev.		
RACHEL YOUNG	POLICE OFFICER	OPD		
Patrick McConachie	Police	OPD		
Stan Waters	Police officer	OPD		
Stephen Farnell	Police officer	OPD		
STACEY BRAYSON	OPELIKA POWER WAREHOUSE MAINT.	OPS		
Joey Malloy	City Administrator	Admin		
Nelmer Malloy	Nelmer Eng	OPS		
Craig Holcomb	Mgr. Fiber Sys.	OPS		
Jane Lewis	Receptionist	HR		
Jonathan Hill	Systems Admin	IT		

Opelika City Admin

Employee Training: Recognizing and Reporting Illicit Discharges
Sign-In Sheet

John M. Harris

12/18/2015

Opelika, AL.

2:00

Opelika, AL.



Name	Position	Department	Email	Phone Number
Ucky Keltan		Coast	X	X
Jonathan Cochran	Police Officer	OPD		
Jan Hunter	PR	Com. Rel.		
Brandon Pettaway	Patrolman	OPD		
Jacob Taylor	Patrolman	OPD		
Jimmy Bush	CODE ENF	REVENUE		
Lori Huguley	Econ Dev Director	Econ Dev		
Amy Bond	Customer service rep	OPS		

Opelika City Admin

Employee Training: Recognizing and Reporting Illicit Discharges
Sign-In Sheet

John M. Harris

12/18/2015

Opelika, AL.

Opelika, AL.



2:00

Name	Position	Department	Email	Phone Number
Jessica Pitts	work flow	OPS		
MARCUS CRAB		SOILD WASTE		
WESLEY WALDROP	Kruck Boom operator	SOILD WASTE		
Kenetta Johnson	Customer Service Rep	OPS		
Anquanette Nelms	CSR	OPS		
Doris McLeod	Billing Clerk	OPS		
Angela Jones	Assistant Revenue	Revenue		

OFD

1-14-16

Employee Training: Recognizing and Reporting Illicit Discharges
Sign-In Sheet

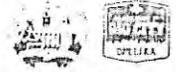
Instructor's Name

Date

Time

Location

Opelika, Al.



Name	Position	Department	Email	Phone Number
Jody Robertson	Driver	OFD		
Tracey Johnson	LT	OFD		
John BURDETTE	DRIVER	OFD		
Zach Nelson	FF	OFD		
Truck Riddle	FF	OFD		
Craig DuBose	A.O. Driver	OFD		
Marc Fulton Jr.	FF	OFD		
Ashley Harmon	Capt.	OFD		
JONATHAN KENNEDY	HAZMAT/EMS	OFD		
CHRIS RODRIGUES	INSPECTOR	OFD		
Keith Bernette	Asst. Chief	OFD		
Joseph D. Bruce	Firefighter/EMT	OFD		
Ryan White	A/O	OFD		
Brent Stephens	Capt.	OFD		

OFD

1-14-16

Employee Training: Recognizing and Reporting Illicit Discharges
Sign-In Sheet

Instructor's Name

Date

Time

Location

Opelika, Al.



Name	Position	Department	Email	Phone Number
David P. Davis	LT	OFD		
Byron Prather	Chief	OFD		
Carly Ferr	FF	OFD		
Chris Smith	FF	OFD		
Stephen Fields	Captain	OFD		
Daks Gentry	FF	OFD		
Tommy Beam	Medic	OFD		

1-21-16 • OFD

Employee Training: Recognizing and Reporting Illicit Discharges
Sign-In Sheet

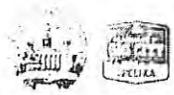
Instructor's Name

Date

Time

Location

Opelika, Al.



Name	Position	Department	Email	Phone Number
TODD ANGELO	ASST CHIEF	FIRE DEPT	X	
Dean Rogers	Lt.	OFD		
Austin Smith	A.O.	OFD		
Mark Lamb	F.F.	OFD		
Daniel Juarez	F.F.	OFD		
Dennis Hanson	LT.	OFD		
Bryan Bradley	LT	OFD		
Kevin Swatts	FF.	OFD		
Michael Kendrick	F.F./Paramedic	OFD		
Travis Allen	FD	OFD		
Bradley Bowen	F.F	OFD		
Robert Collier	A.O	OFD		
James Williams	FF	OFD		
Rob Lee	A.O	OFD		

1-22-16

Employee Training: Recognizing and Reporting Illicit Discharges Sign-In Sheet

Instructor's Name

Date

Time

Location

O F D

Opelika, Al.



Name	Position	Department	Email	Phone Number
Scott Atkins	Assistant chief	Fire Dept.		
Blake Stone	Fire Fighter	Fire Dept.		
Lance Caldwell	Fire/medic	Fire Dept.		
Randy Boone	Apparatus Operator	Fire		
Daniel Nichols	Apparatus Operator	Fire Dept.		
Stephanie Durbin	Fire Lieutenant	Fire Dept.		
Kenneth Blair	Fire Captain	Fire Dept.		
Zack Sowell	Fire fighter	Fire Dept.		
Noah Allmond	Apparatus Operator	Fire Dept.		
Bryan Densel	Lieutenant	Fire Dept.		
Gabe Rumpfelt	Firefighter	Fire Dept.		
Joshua Lawhorn	Fire fighter	Fire Dept.		
David Floyd	Apparatus Operator	Fire Dept.		
Abanious Lipscomb	Firefighter	Fire Dept.		

1-22-16

Employee Training: Recognizing and Reporting Illicit Discharges Sign-In Sheet

Instructor's Name

Date

Time

Location

OFD

Opelika, Al.



Name	Position	Department	Email	Phone Number
Anthony Danzare	Fire fighter	Opelika Fire		
Chase McDonnell	RP	OFD		

2-12-16

Park & Rec

Employee Training: Recognizing and Reporting Illicit Discharges
Sign-In Sheet

Instructor's Name

Date

Time

Location

Opelika, Al.



Name	Position	Department	Email	Phone Number
Jeff Pokorny				
Eric Jackson				
MARY Kuhn				
Lisa Gallagher				
Laura Chesser				
Mary Goh				
M. B. Martin	Athletic Director	P&R	mmartin@opelika.net	334-705-2490
Val White				
Connie Hollingsworth				
Patrice Lipscomb				
David Scott				
Jim Darr				
Julie Smith				
Richard Curtis				

2-12-16

Park-N-Rec

Employee Training: Recognizing and Reporting Illicit Discharges
Sign-In Sheet

Instructor's Name

Date

Time

Location

Opelika, Al.



Name	Position	Department	Email	Phone Number
Sam Bailey	Director	P/R	Sbailey@Opelika-Al.gov	750-3381
John Huling	Asst Manager	P/R	jhuling@opelika.net	705-2485
Angelia Thomas	CSR	P/R	Athomas@opelika.net	705-5580
Tommie Agee	Ass. Director Manager	P/R	Tagee@opelika.net	705-5553
Matthew Battles	Area Supervisor	P/R	mbattles@opelika.net	705-5547
Reed Pope		P/R		

ESG

2-24-16

Employee Training: Recognizing and Reporting Illicit Discharges

Sign-In Sheet

Instructor's Name

Date

Time

Location

Opelika, Al.



Name	Position	Department	Email	Phone Number
Robert Martin	Grounds WMA/BSM	Street		
Chris Lee		Street		
Victor Alvin		Sign		
Aaron Grant		Street		
Anthony Clark		Grounds		
Anthony Clark		Street		
Willie Jackson		Street		
Robert Swader		Street		
Roman		Street		
M J O		Street		
Jodi Webb		Street		
Louis Logan		Park m		
Dou's Amb's		Park m		
Eymel Harris		Park m		

ESG

2-24-16

Employee Training: Recognizing and Reporting Illicit Discharges
Sign-In Sheet

Instructor's Name

Date

Time

Location

Opelika, Al.



Name	Position	Department	Email	Phone Number
<i>[Signature]</i>		Sign	X	X
Joseph Shaw		Grounds		
Ronald Lingo		Grounds		
Bruce Boyd		Park m		
Keith [Signature]		Park m		
Robert Whittaker		Grounds		
Cory Askew		Grounds		
James Thomas		Grounds		
Bobby [Signature]		Sportplex		
Andy Brown		Park m		
CM Askew		Admin		



City of Opelika
Departmental Training
for
Illicit Discharge Detection
Elimination
IDDE

2016

IDENTIFICATION, REPORTING AND CORRECTIVE ACTION

Municipal Separate Storm Sewer System
(MS4) City
"Opelika"

Urbanized areas of 50,000 pop.
48 in Alabama

EPA's NPDES phase II rule
National Pollutant Discharge Elimination System

ADEM requires Opelika to have a
SWMP and inspect ADEM permitted
sites for disturbance/discharge
activities within the municipality.

**ADEM HOLDS OPELIKA ACCOUNTABLE FOR LAND
DISTURBANCE AND LOCATING ILLICIT DISCHARGES TO
ENSURE CLEAN WATER, GRANTED TO ADEM BY EPA.**



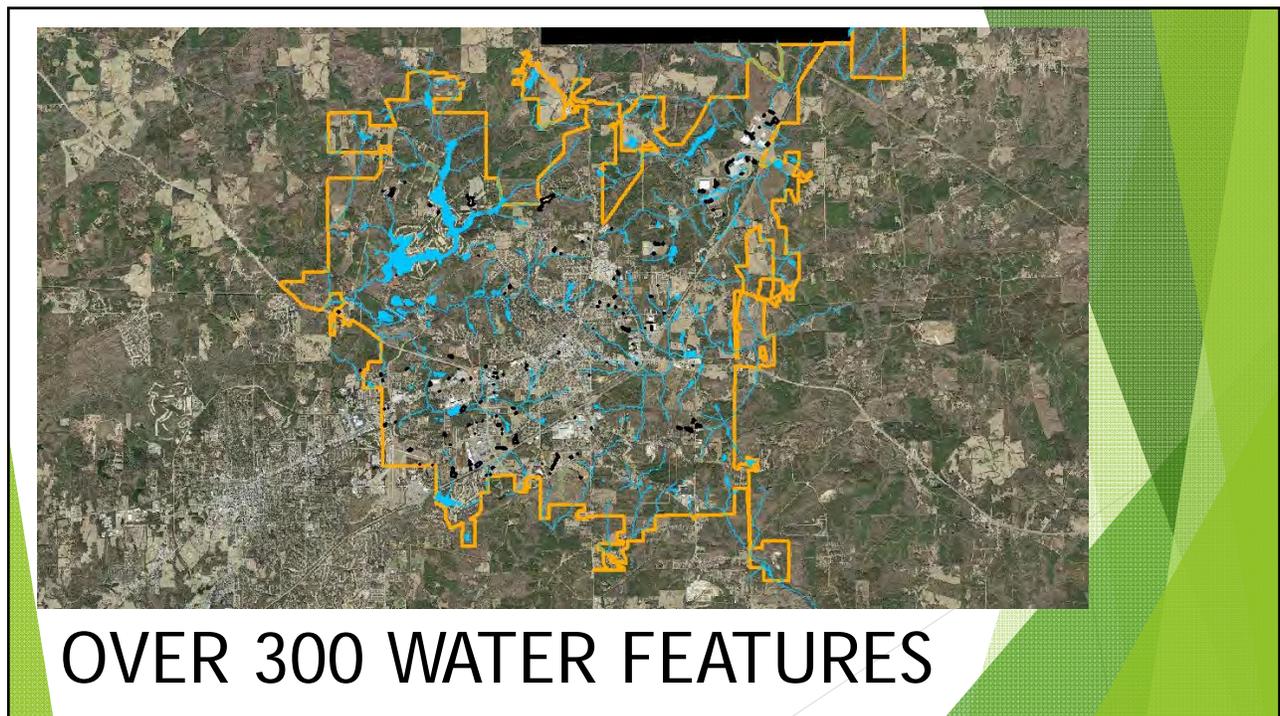
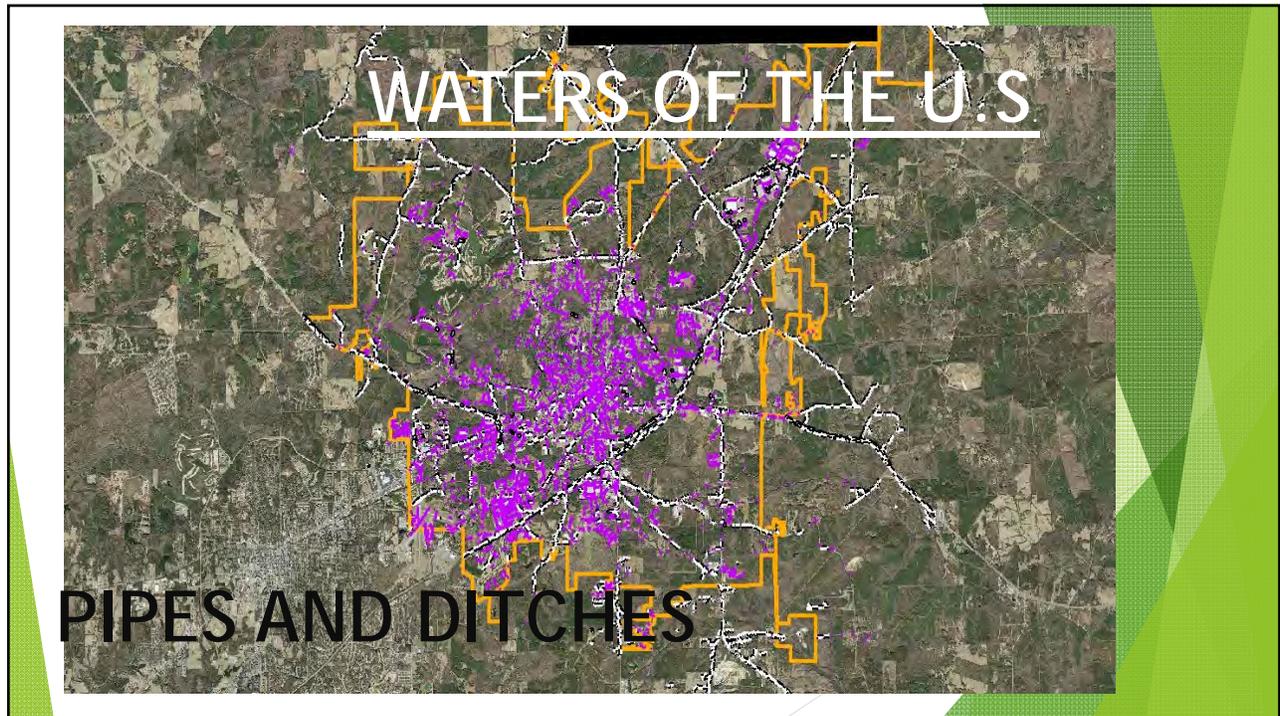
UN FUNDED MANDATE

2016 ADEM MS4 PREVENTION & MANAGEMENT: Part III-A 2:
 “shall provide and maintain adequate finance for staff, equipment and support necessary to implement the SWMP”

Governor has signed a recent bill into law allowing municipalities to add storm water fees to property taxes for storm water program revenue.

A fee table is also included in the law.
 Res. NTE \$10/yr.
 Ind: ½ of 1 cent per sq ft. NTE \$3K/yr .

*WATER METER fees are being used to generate funds to meet these mandates
 Opelika has 12,695 water meters*



“ EPA/NPEDS 6 minimum control measures for ALL cities:

- Public education & outreach on storm water
- Public involvement
- IDDE program
- Construction site storm water runoff control
- Post-Construction storm water management*
- Pollution prevention and good house keeping

”

BY manageable units, GIS data, partners, education and awareness !
Cross training, utilizing other eyes!

A training program for municipal employees is **REQUIRED** under the Pollution Prevention/Good Housekeeping for Municipal operations from the 6 Edu. categories.

Opelika has adopted an Illicit Discharge Detection Elimination Ordinance:*

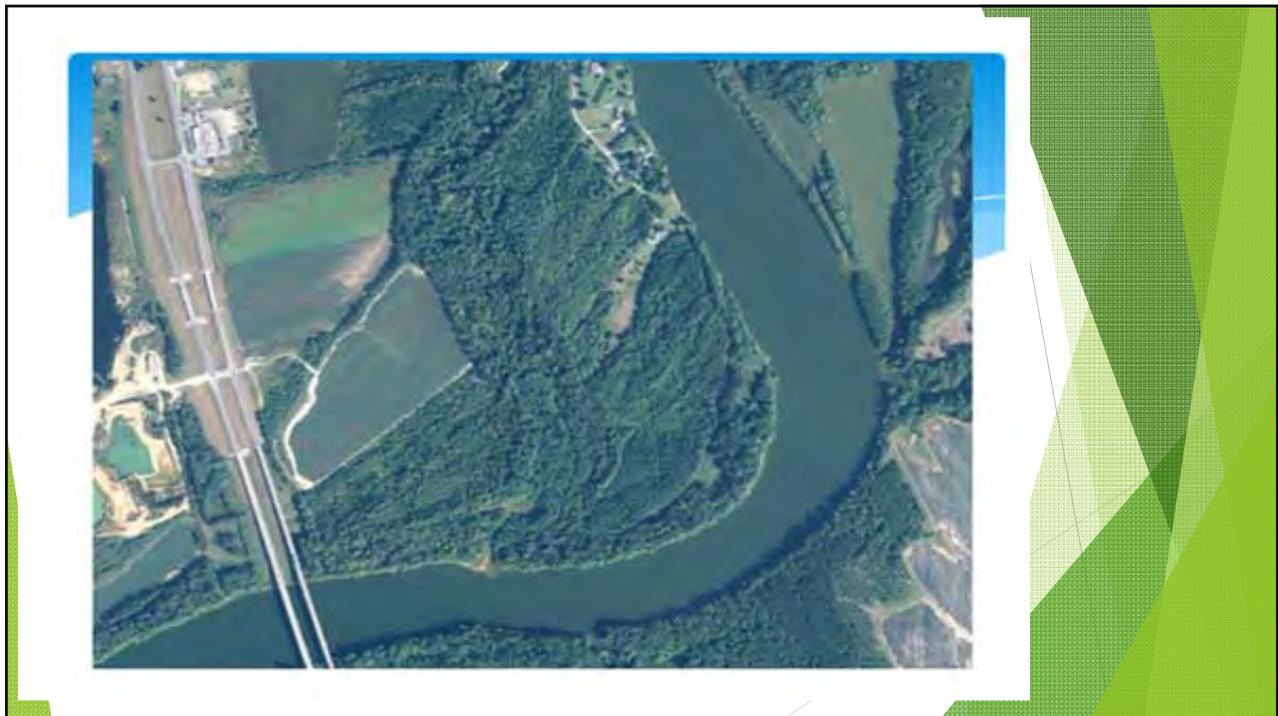
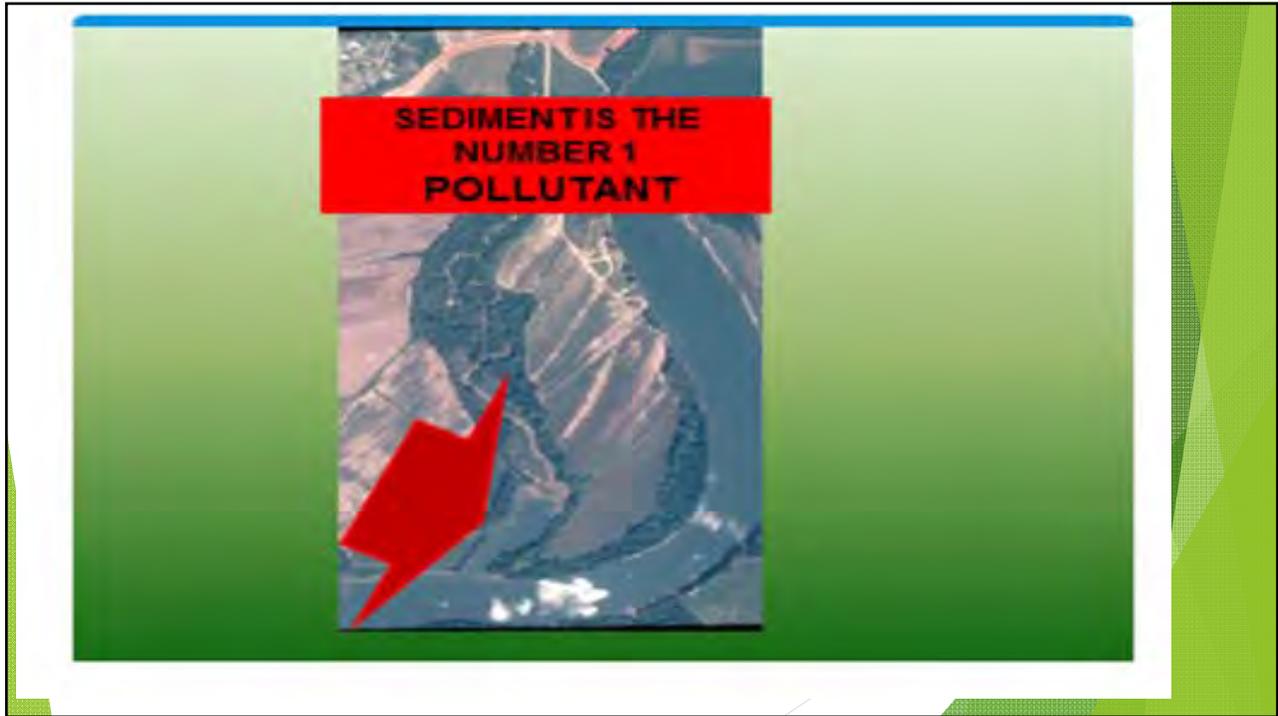
IDDE (Ord. # 117-11 **9-20-11**). If anyone has known or suspected release of materials which are resulting/may result in illegal discharges or pollutants discharging into storm water, the storm drain system, or waters of the United States, said person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release.

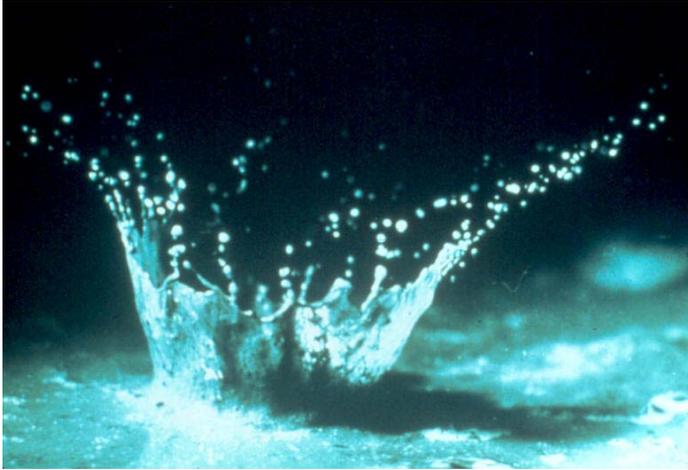
FIRE DEPARTMENT
POLICE DEPARTMENT
SOLID WASTE
BUILDING INSPECTIONS
PARKS & RECREATION
OPELIKA WATER
OPELIKA POWER SERVICES
CITY ENGINEERING
OTHERS

TODAY IS ABOUT *AWARENESS OF*
spotting POTENTIAL ILLICIT DISCHARGE

QUESTIONS

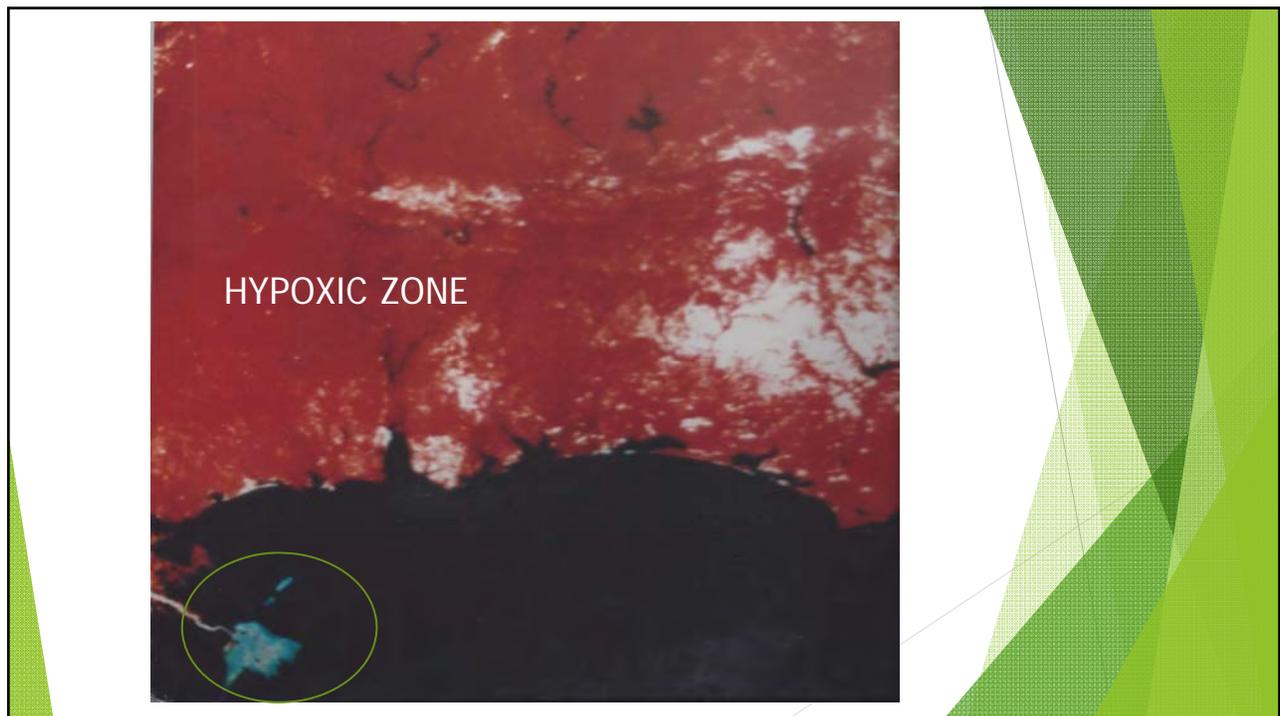
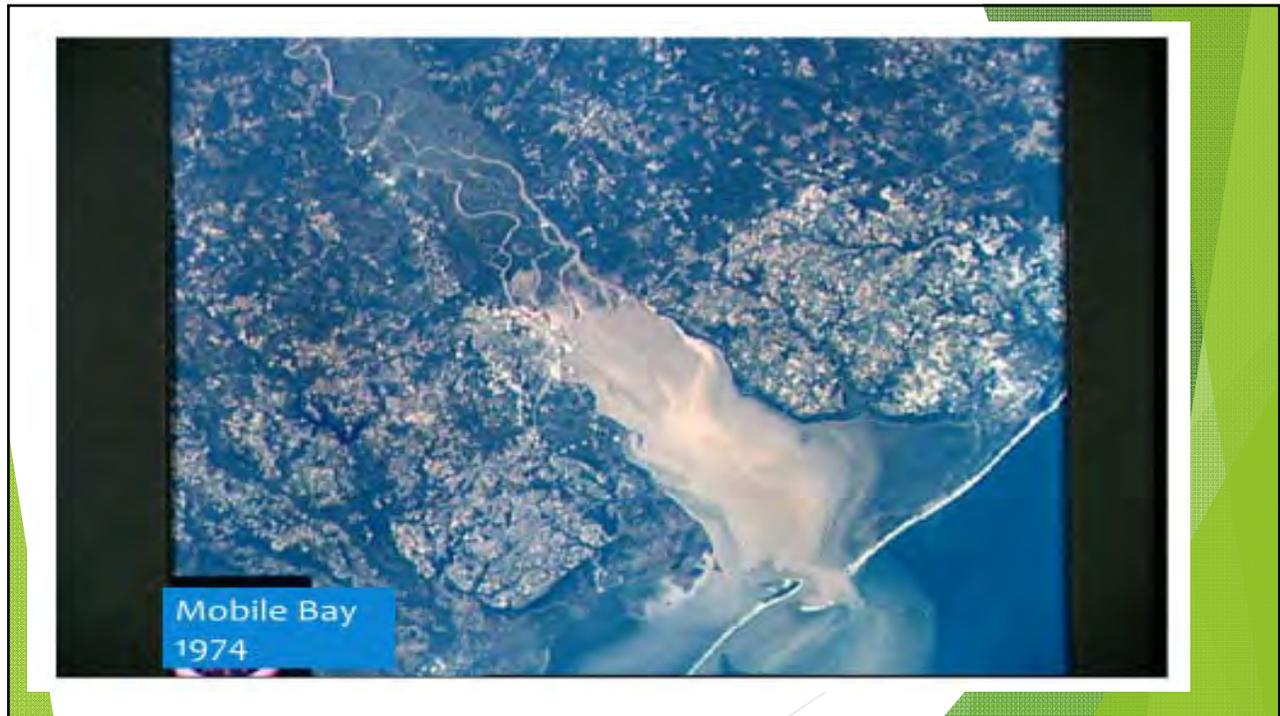
AWARENESS





DETACHMENT, SEDIMENT TRANSPORTATION, DEPOSITION carrying other pollutants.





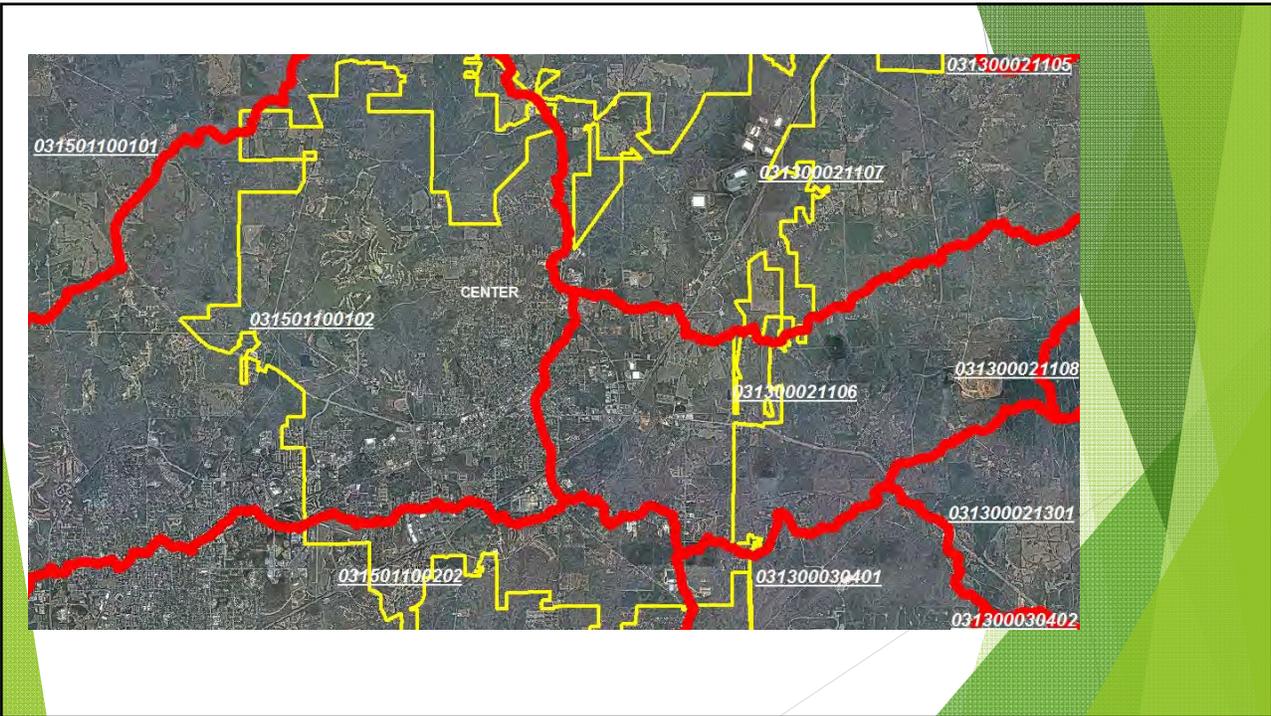
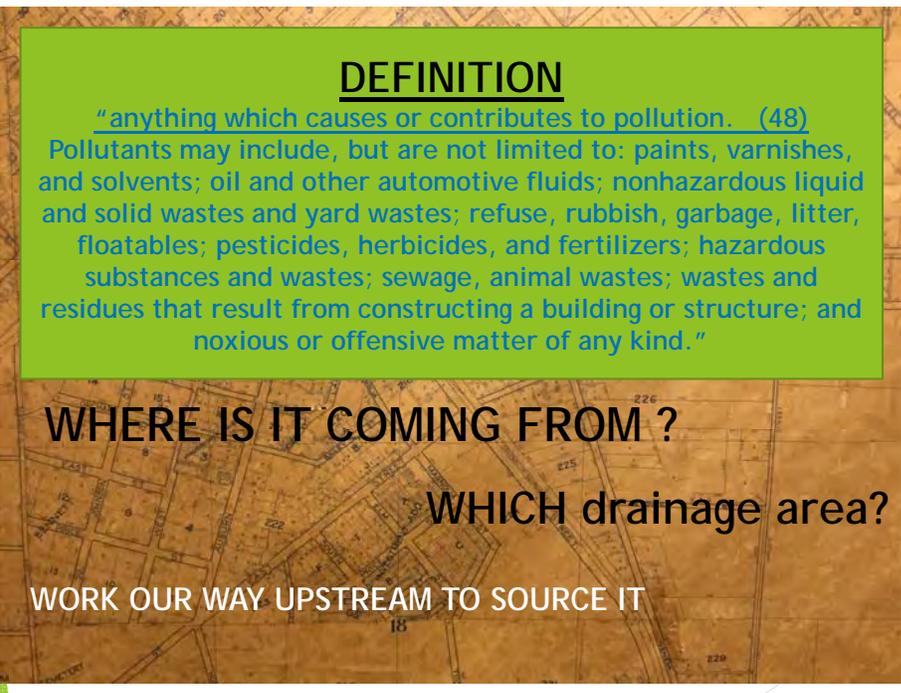
DEFINITION

“anything which causes or contributes to pollution. (48)
Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; nonhazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, animal wastes; wastes and residues that result from constructing a building or structure; and noxious or offensive matter of any kind.”

WHERE IS IT COMING FROM ?

WHICH drainage area?

WORK OUR WAY UPSTREAM TO SOURCE IT

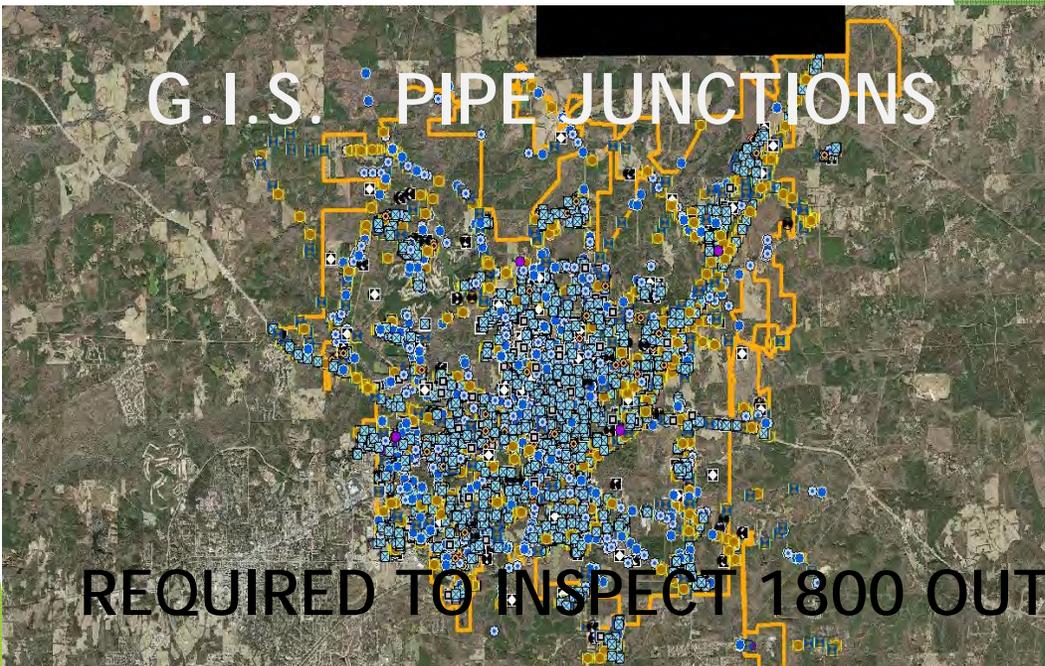


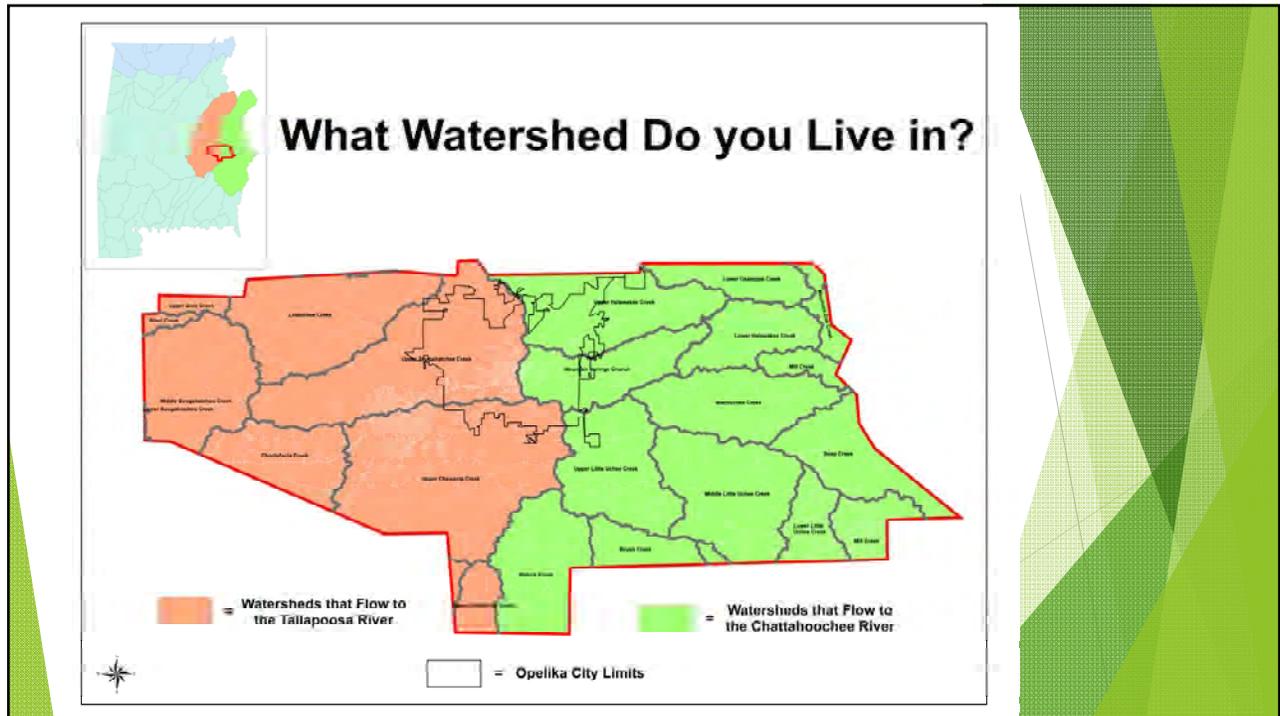
Hazardous materials, said person shall immediately notify emergency response agencies of the occurrence via emergency dispatch !!

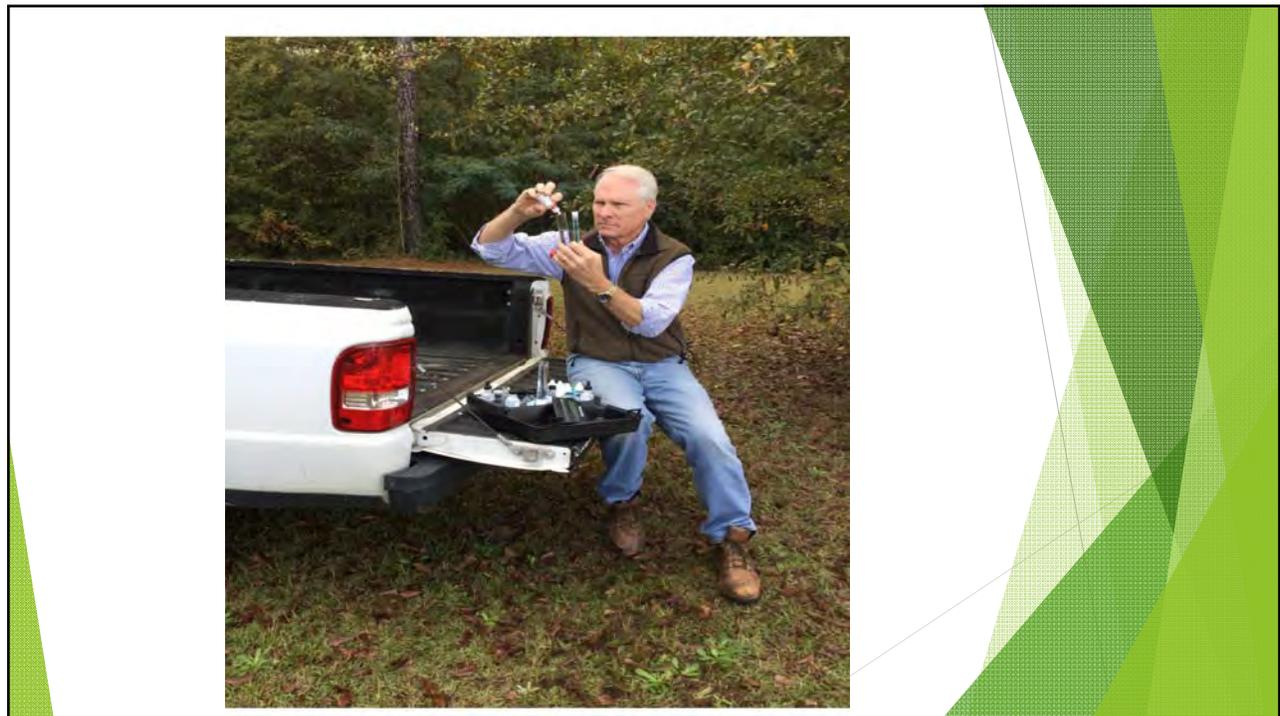
nonhazardous materials, said person shall notify the office of the city engineer in person or by phone, facsimile, or e-mail no later than the next business day.

FIRE DEPARTMENT - HAZMAT : 334-750-7074

ENGINEERING - Storm Water Coordinator : 334-705-5450







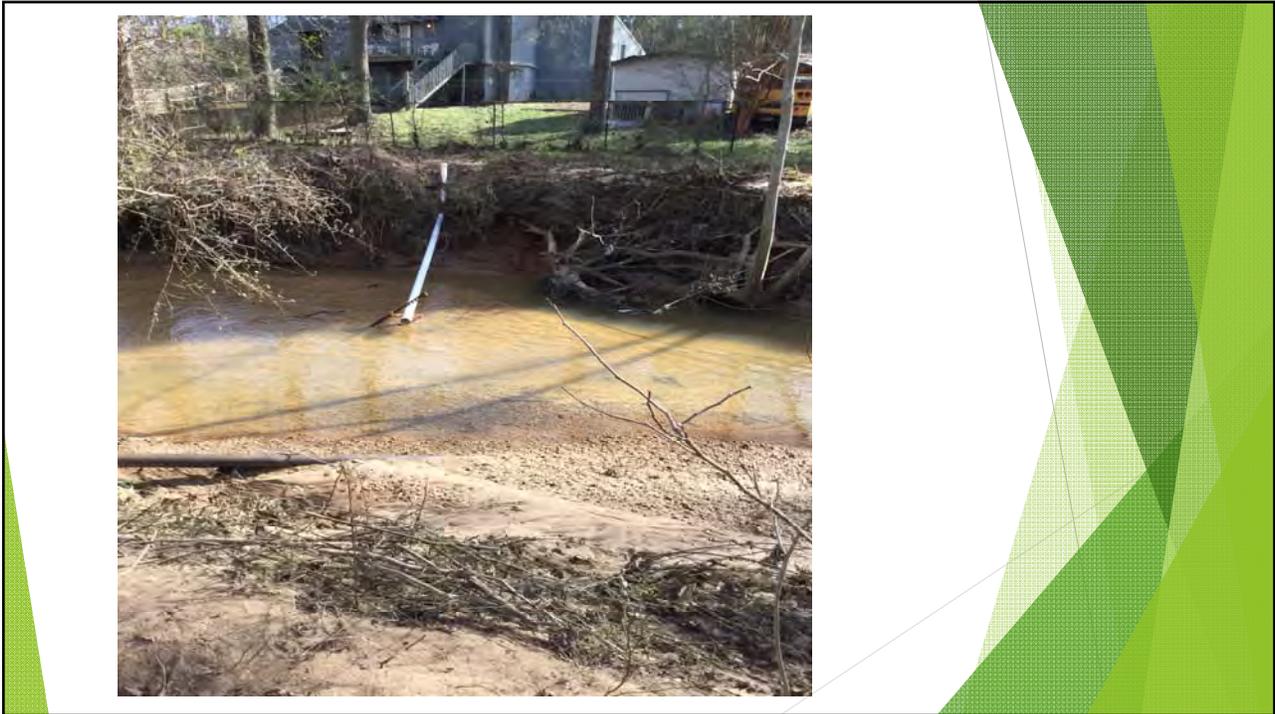
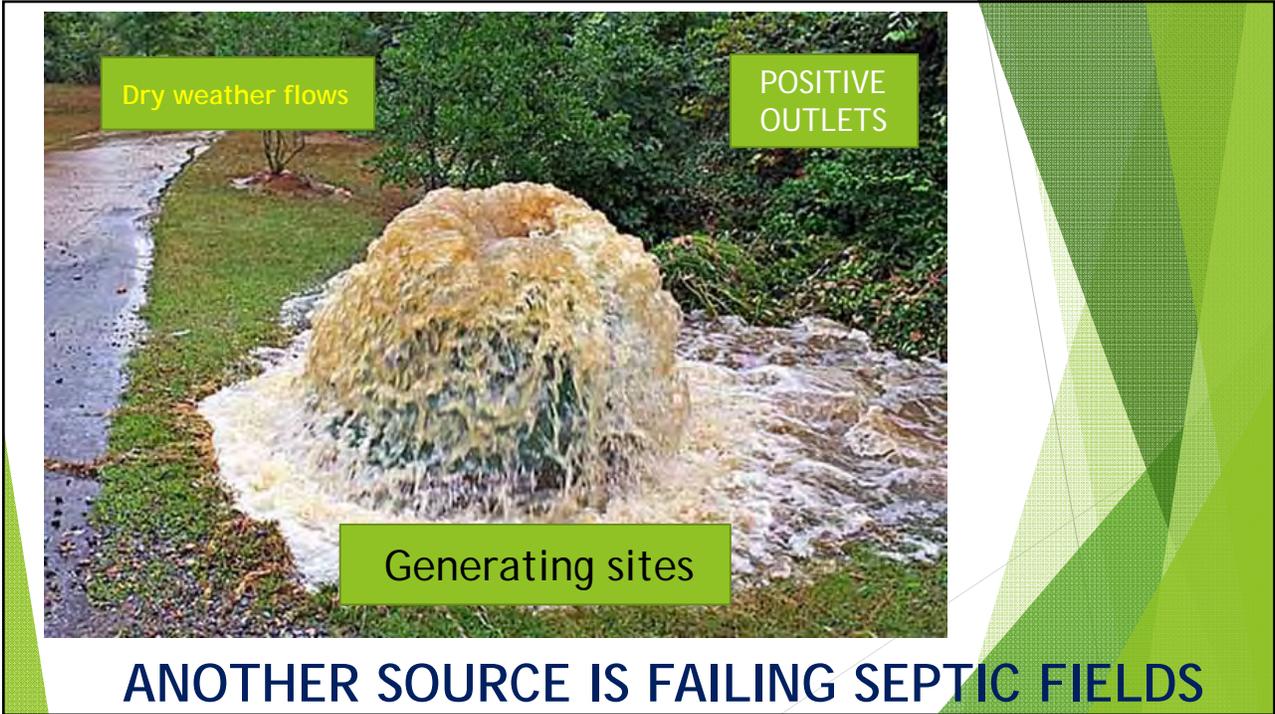
WATER CHEMISTRY MONITORING DATA

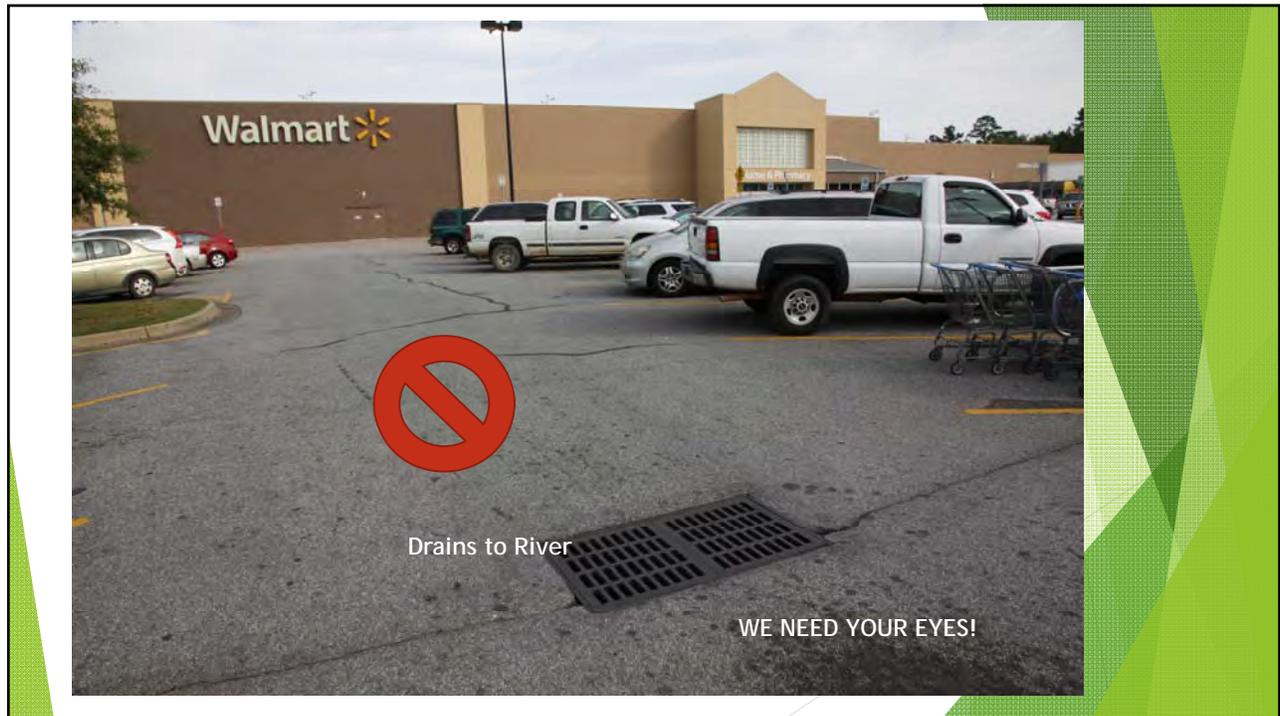
Group Name: Ope Storm water online
 Collector(s): S. Harris Address: Bent chub Branch
 City: Opauke State: Az Zip: _____ Phone N°: _____
 Sample Date: 10/24-15 Sample Time: 9:00 AWW Site Code: _____
 Watershed: Sanguahue Waterbody: _____ County & State: Lee Az
 Sampling site location: Bent chub I.P.S. 57 exit
(Notify the AWW office about any changes in sampling site location.)

Waterbody condition: Adequate Depth Inadequate Depth Dry No Access
 Tidally influenced streams and rivers: Rising Tide Falling Tide Uncertain

Parameter	Value	Comments
Air Temperature	<u>67° 22 °C</u>	Measure air temperature before water temperature.
Water Temperature	<u>17 °C</u>	Avoid touching thermometer bulb.
pH	<u>7.1</u> Standard international units	Record to nearest 0.5 unit.
Dissolved Oxygen (DO)	Rep #1: <u>5</u> ppm Rep #2: <u>5</u> ppm	Make sure two readings are within 0.6 ppm
Specific Gravity / Salinity	S. G. _____ Salinity: _____ ppt	If salinity is present do not test for hardness.
% Oxygen Saturation	Avg DO _____ % DO Sat _____	Estimate from chart found in the AWW manual.
Total Alkalinity	<u>17</u> mg/L as CaCO ₃	Add chlorine until no more visible chlorine







QUESTIONS ?

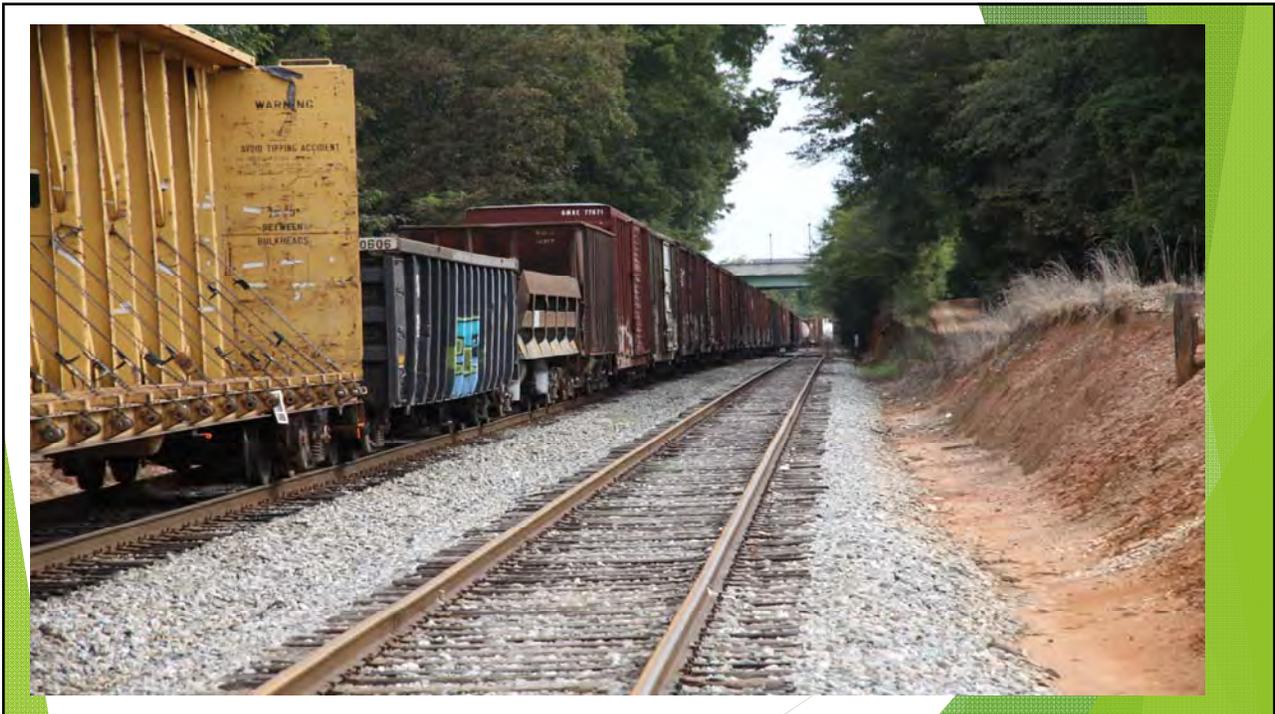
AWARENESS



Endangered Storm Water









12-9-15 - Arkadelphia EXIT: sulfuric acid, hydrogen peroxide, sodium hydroxide, toluene burned for more than an hour before hazmat operation could resume!







OPELIKA'S SWMP Section: 6.12

The City's Fire Department is responsible for responding to any type of spill that may occur within the City's MS4. If a spill enters the MS4, the Fire Department shall notify the Storm Water Program Coordinator. The Storm Water Program Coordinator shall evaluate the impacts of the spill on the MS4 and ensure appropriate corrective measures are taken to abate the spill. Follow up inspections of the effected area shall be performed as needed

















Hazardous materials, said person shall immediately notify emergency response agencies of the occurrence via emergency dispatch

nonhazardous materials, said person shall notify the office of the city engineer in person or by phone, facsimile, or e-mail no later than the next business day.

REVIEW SLIDE

FIRE DEPARTMENT - HAZMAT : 334-750-7074

ENGINEERING - Storm water Coordinator : 334-399-2199

The screenshot shows the City of Opelika website. At the top, there is a navigation bar with links for Home, Elected Officials, Departments/Divisions, Living, Doing Business, and Contact. The main content area is titled "Online 311 System" and includes a welcome message, a "Please note" section, and instructions on how to submit a service request. There are also "LOGIN" and "SIGN UP" buttons. A sidebar on the left contains various links such as City News, Community Happenings, and Council Meeting Information. The footer includes "Action Center" and "Economic Development" links.



**Distributions of Freshwater Species
in Selected Southeastern States**

	Mussels (301)	Snails (702)	Crayfish (338)	Fish (1021)	Amphibians (163)
Alabama	178	204	85	304	69
Tennessee	132	87	62	298	66
Georgia	118	83	53	219	81
Kentucky	103	62	47	220	49



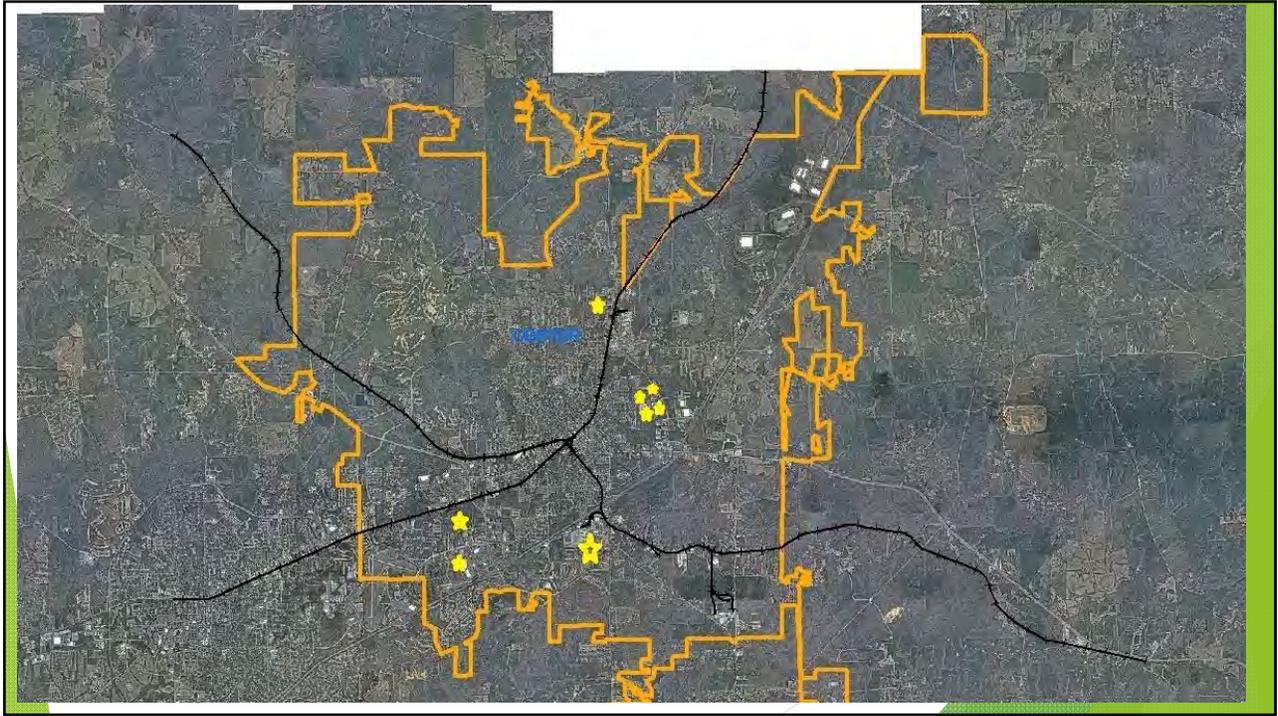
Procambarus sp. - Endangered
Bouge Chitto Burrower
Perry County, Alabama

43%

Alabama is ranked 4th among 50 states for THE MOST SPECIES

Enjoy swimmable waters





This entire effort requires teamwork
and imagination.



John M. Harris
Stormwater Coordinator

Opelika Engineering

IDENTIFICATION, REPORTING AND CORRECTIVE ACTION

IDDE
Awareness

SEE SOMETHING, SAY SOMETHING

HAZMAT 334-750-7074

ENGINEERING 334-705-5450

At the end of this training, employees should be able to understand:

- The terms “stormwater” and “illicit discharge”
- Why these terms are important and why they should care
- What they can do to help prevent storm water pollution
- How to recognize and report illicit discharges (pollution)

The Opelika Water Watch Community is
seeking volunteers
to assist and take stream data

2,362 water samples
629 bacteria samples
486 sampling sites
187 streams, rives, lakes

Come join us.

