CARROLLTON
TEXAS

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December 21, 2017

Texas Commission on Environmental Quality
Stormwater & Pretreatment Team Leader (MC-148)
P.O. Box 13087
Austin, Texas 78711-3087

Re: Phase II MS4 Annual Report Transmittal for City of Carrollton MS4
TPDES Authorization: TXR040326

Dear Team Leader:

This letter serves to transmit the required annual report for the Texas Pollutant Discharge Elimination System Small Municipal Separate Storm Sewer System General Permit, Authorization Number TXR040326 for the City of Carrollton.

The annual report is for Year__4___. The reporting period's beginning October 1, 2016 and ending September 30, 2017.

A separate Notice of Change has been included in this submittal for updating the contact information.

As required by the general permit, a copy of the report has been mailed to the TCEQ's regional office 4 in Fort Worth, Texas.

Sincerely,

Cory Heiple
Environmental Quality Manager
City of Carrollton

ENVIRONMENTAL SERVICES
1945 E. Jackson Rd., Carrollton, TX 75006 | 972.466.3060 | Fax: 972.466.3175
P.O. Box 110535, Carrollton, TX 75011-0535 | cityofcarrollton.com

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Phase II (Small) MS4 Annual Report Form
TPDES General Permit No. TXR040000

A. General Information

1. Authorization Number: TXR040326
   Reporting Year: 4
   Annual Reporting Option Selected: Fiscal Year Last day of fiscal year: September 30th
   Reporting Period Beginning Date: October 1, 2016
   Reporting Period End Dates: September 30, 2017
   MS4 Operator Level: 4
   Name of MS4: City of Carrollton
   Contact Name: Cory Heiple Telephone Number: 972-466-3395
   Mailing Address: 1945 E. Jackson Rd., Carrollton, TX 75006
   Email Address: cory.heiple@cityofcarrollton.com
   A copy of this annual report was submitted to the TCEQ Regional Office? Yes. USPS Certified Mail No. 7015 1520 0002 5577 6429
   Region the annual report was submitted. TCEQ Region 4

B. Status of Compliance with the MS4 GP and SWMP

1. Provide information on the status of complying with permit conditions.

a. Permittee is currently in compliance with the SWMP as submitted to and approved by the TCEQ? Yes
b. Permittee is currently in compliance with recordkeeping and reporting requirements? Yes
c. Permittee meets the eligibility requirements of the permit (e.g. TMDL, Edwards Aquifer limitations, compliance history, etc.)? Yes

2. Provide a general assessment of the appropriateness of the selected BMPs:

BMP	Objective – BMP Description	Appropriateness – BMP appropriate for reducing the discharge of pollutants in stormwater (yes or no). Explain.
1.1 Storm Water Reading Materials	To educate all groups through different types of reading materials including news articles, brochures, posters and notice letters on impacts of storm water on water quality, hazards associated with illegal discharges and improper disposal of waste, and steps they can take to reduce pollutants in storm water.	Yes – Since the materials come in various formats it reaches out to a variety of groups and a large number of people. The message of reducing the discharge of pollutants appears in thorough explanations, action items, illustrative photos and other formats that not only appeal to various audiences but reiterate the message of protecting stormwater from pollution.

1.2	Public Presentations and Educational Events	To educate residents, businesses, visitors, and commercial and industrial facilities about impacts of storm water on water quality, hazards associated with illegal discharges and improper disposal of waste, and steps they can take to reduce pollutants in storm water.	Yes – Each presentation or educational booth is tailored to cater to the target audience thus delivering the topic in a relevant and understandable form.
1.3	Promotional Items	To educate all groups by sending storm water messages and promoting the hotline number by providing useful items free of charge.	Yes – Giveaways are great especially as these are practical items that people use daily, such as pencils, erasers, sharpeners, jar openers, pet waste bag holders, and the like.
1.4	Annual "March is Texas SmartScape™ Month	To educate residents, businesses, visitors, and commercial and industrial facilities about using native and adapted plants to improve water quality.	Yes – It is a great tool for residents and businesses that want to make changes to their landscape, as this is a great time of the year to start planning. Conducting this campaign in March allows for adequate time in planning and ensuring success for the people's efforts at helping to improve stormwater quality.
1.5	Environmental Education for Commercial and Industrial Facilities	To educate commercial and industrial facilities about impacts of storm water on water quality; hazards associated with illegal discharges and improper disposal of waste; and steps they can take to reduce pollutants in storm water through meetings and hand-outs.	Yes – Both general pollutants as well as characteristic pollutants from specific commercial and industrial operations are explained. This ensures a comprehensive and relevant discussion of reducing stormwater pollution from these sources.
1.6	Environmental Education for Construction Site Personnel	To educate construction site personnel on TPDES Construction General Permit and city ordinance requirements to ensure controls for erosion/sediments, wastes and other pollutants at construction sites through handouts and a brief presentation.	Yes – A construction information packet is distributed directly to the owners or contractors, who have operational and financial controls over the construction project. The presentation or overview explains what we expect from them and their management of the site.
1.7	Storm Drain Marking	To educate all groups through placards placed on the storm drain to not dump or discharge any pollutants into the storm drain and where the storm drain goes.	Yes – The storm water message is placed directly on the storm drain inlet and it informs anyone who steps up to it two basic concepts: one, that these structures link rain to the creeks and therefore, two, that no pollution should be sent down through these inlets. This BMP is a real-time teaching method.
1.8	Storm Water and Pollution Prevention Videos & Public Service Announcements	To educate all groups about impacts of storm water on water quality; hazards associated with illegal discharges and improper disposal of waste; and steps they can take to reduce pollutants in storm water through videos.	Yes – These videos are great educational tools because these are dynamic, include real-life situations that folks can relate to and most importantly stormwater pollution prevention recommendations that they can follow. These videos also incorporate the printed words.

1.9	TCEQ FOG Initiative	To educate restaurants, apartment managers, apartment tenants, and industries about fats, oils, and grease and ways to reduce the possibility of a sanitary sewer overflow through brochures, posters, website, inspections, and presentations.	Yes – The information is distributed directly to the appropriate groups whose operations would have a big impact on the sewer collection system and the wastewater treatment plant and therefore can best benefit from this training.
1.10	Household Hazardous Waste Site	To educate residents about proper disposal of household hazardous waste and where they can dispose of their wastes through both articles and a website.	Yes – This provides concrete information to residents on how to properly dispose of their household hazardous wastes, at the same time providing a mechanism for citizens to provide feedback to the city.
1.11	Pet Waste Education	To educate pet owners about the importance of cleaning up after their pets.	Yes – Information is distributed directly to the appropriate group and educates the group that has the most control over this.
1.12	Environmental Services website	To educate all groups on storm water issues through a web site that is available every day of the year.	Yes – Educational information is available every day of the year from any computer to those who seek the information.
1.13	Electronic Newsletter for City Employees	To educate public service employees on storm water issues and/or pollution prevention topic.	Yes – It is distributed directly to all employees and copies printed for those without computer access. Provides storm water pollution prevention information employees can use in their daily lives, while reiterating their role as city employees in preventing storm water pollution.
1.14	Environmental Educational School Kit	To provide educational materials to teachers to use in the classroom.	Yes – These are distributed to the schools in line with their academic or extra-curricular programs. These are helpful to and welcomed by the teachers and students alike.
1.15	Comply with State and Local Public Notice Requirements	To involve the public by soliciting comments on the Storm Water Pollution Prevention Ordinance and the NOI and SWMP as required.	Yes – Gives the public a chance to comment on ordinances and SWMP prior to approval by City Council or the TCEQ.
1.16	Public Meetings	To get input and support from citizens and businesses about the SWMP.	Yes – Not only does this provide another way to educate residents on the SWMP activities, but it also ensures buy-in or ownership over the activities from citizen and business input.
1.17	Illicit Discharge Reporting Line	To provide a means for the public to report illicit discharges 24 hours a day that the city may not notice.	Yes – This lets the public report violators that the city may not discover.
1.18	Volunteer Creek Cleanup	To give residents and businesses an opportunity to participate in removing trash from the city creeks and parks.	Yes – This is another tangible way to involve citizens, groups, and businesses to help clean-up our waterways.
1.19	Citizens Advisory Committee	To involve residents, industries, school districts, etc. in the implementation of the SWMP.	Yes – The broad representation of various groups (two independent school districts, businesses, citizen and a representative from the city's Neighborhood Advisory

			Commission) ensures input from the main sectors within the city.
2.1	Storm Sewer System Map	To complete and verify a map of all outfalls in the city.	Yes – This map of the outfalls and inlets facilitates an efficient and systematic method to trace discharges to the storm water system, as well as mitigating releases to storm water system.
2.2	Storm Water Pollution Control Ordinance	To develop and implement an ordinance to prohibit non-storm water discharges.	Yes – This gives the city the legal authority to prohibit and enforce non-storm water discharges into the storm water system. The ordinance also serves to inform every one of their responsibilities towards preventing storm water pollution.
2.3	Spill Response	To respond quickly to and clean up accidental or intentional releases of hazardous materials by having a staff member available for spill response 24/7.	Yes – This ensures coverage by trained staff for spill remediation, reporting, and enforcement during all times, thereby minimizing the adverse impact of releases to the storm water system.
2.4	Illicit Discharge Reporting Line	To provide a means for the public to report illicit discharges 24 hours a day that the city may not notice.	Yes – This allows citizens to report discharges 24 hours a day and therefore ensures the timely response by trained staff to respond to these illicit discharges.
2.5	Construction Plans Review and Site Inspection for Illicit Connections	To review construction plans and perform site inspections for detection and elimination of illicit connections.	Yes – This ensures that there are no illicit connections during the building process.
2.6 and	Illegal Dumping Litter Control	To eliminate illegal dumping and littering through abatement and enforcement activities.	Yes – This not only establishes the quick removal of illegal dumping and litter, but also deters repeat violations.
2.7	Liquid Waste Program	To reduce the impact that liquid waste haulers and liquid waste generators have on our water quality through inspections, permits, and monitoring.	Yes – This program lays down the permitting process, responsibilities, and sanctions for violators which will limit storm water pollution from indiscriminate dumping of liquid waste and negligent/lack of grease/grit trap maintenance.
2.8	Maintenance Program for Sanitary Sewers	To prevent and reduce sanitary sewer overflows through proactive maintenance of the sanitary sewer system.	Yes – This maintenance program reduces and prevents sanitary sewer overflows, thus reducing and preventing storm water pollution.
2.9	Pet Waste Management	To require pet owners to remove pet wastes from both public and private areas.	Yes – This program not only establishes the responsibilities of pet owners to clean-up after their pets, but also educates them on the impact of pet waste on the quality of surface water and provides them with reminders and trash bags at dog parks.

2.10	Dry Weather Discharge Screening	To participate in the regional protocol for dry weather screening and to purchase items to use for monitoring.	Yes – This is a clear method to detect illicit discharges and thereby facilitate remediation, elimination, and targeted education in the areas where these are detected.
2.11	Household Hazardous Waste Program	To provide residents with a means of disposing of their household hazardous waste at no additional charge as this service is included in monthly sanitation fees.	Yes – The program allows residents to dispose of their household hazardous waste properly, at no additional cost and at their curbside, thereby encouraging timely and easy disposal versus the inconvenient collection, storing, and travelling to collection sites.
2.12	Water Main Breaks	To implement a response plan to reduce the amount of chlorine that gets discharged into creeks from water main breaks.	Yes – This response plan can help minimize the impact that chlorine and sediment have on our creeks and wildlife.
2.13	Employee Training for Illicit Discharges	To train field employees on spotting illicit discharges and who to contact when they see one.	Yes – This enables the city to have many more eyes looking for illicit discharges, allows for quicker response, and less damage to wildlife and surface waters.
3.1	Ordinance for Construction Site Erosion and Sediment Controls	To develop an ordinance requiring construction site operators to implement appropriate erosion and sediment control and to control wastes at construction sites for all land disturbances, regardless of size.	Yes – This provides the city with the legal authority to prohibit non-storm water discharges and to enforce compliance with federal/state storm water permits for construction activities.
3.2	Storm Water Pollution Prevention Plan Review and Submission of NOI/CSN	To ensure that construction sites are in compliance with the TPDES Construction General Permit by requiring the submission of their NOI, CSN, and SWPPP for the city to review.	Yes – This ensures that the construction site operators are aware of their responsibilities and have put in writing their plan to meet the requirements under the TPDES Construction General Permit.
3.3	Construction Site Inspection	To ensure proper installation and maintenance of sediment and erosion control measures by inspecting all active private construction sites regardless of the size of the land disturbance.	Yes – The inspections ascertain that the storm water BMPs are installed and maintained and changes are updated on their Construction SWPPP.
3.4	Response to Citizen Complaints	To respond to public inquiries, concerns, and complaints regarding all construction sites regardless of the size of the land disturbance.	Yes – The hotline provides a means for the public to report problems at construction sites and allows the city to respond quickly, especially if there is an illicit discharge.
3.5	Storm Water Information Package for Construction Site Operators	To educate construction site operators by distributing the city and state construction requirements information package to construction site operators applying for a grading or building permit regardless of the size of the land disturbance.	Yes – The handouts are a great way to distribute information to the contractors. In addition to the handouts, a mini presentation is given to the contractors and owners, so they hear exactly what the city expects of them.

3.6	Preconstruction Meetings	To discuss erosion/sediment controls, pollution prevention practices, waste management, and TPDES requirements by conducting meetings for all operators of construction sites applying for a grading or building permit with the city, regardless of the size of the land disturbance.	Yes – The meetings give us an opportunity to provide information directly to the contractors and owners prior to land disturbance. An overview of what is required is covered in the meeting with a chance to ask questions.
3.7	Demolitions	To verify that demolition requirements for all demolition sites 1 acre or greater, or that are part of a larger common plan of development, are complete before a permit is issued.	Yes – The review of the CSN or NOI and SWPP ensures that construction operators have applied for coverage under the TPDES Construction General Permit and that appropriate erosion and pollution control measures are planned for at the site.
3.8	Employee Training	To train construction inspectors and enforcement officers on inspecting construction sites.	Yes – The training provides standards and updated information for construction inspectors to be able to give proper assessment of construction sites on whether it is protective of storm water quality.
3.9	Construction Site Inventory	To maintain an active construction project list.	Yes – This ensures that departments keep track of their active projects and their current construction phase.
4.1	Review of Subdivision Ordinance and General Design Standards	To identify additional opportunities for implementation of control measures that will assist the city in reducing pollutants in storm water from new or redeveloped areas.	Yes – These are tools that direct growth to identified areas, protect ecologically sensitive areas, minimize impervious surfaces, and provide buffers along sensitive water bodies.
4.2	Long-Term Operation and Maintenance Plan for Structural BMPs	To ensure long-term operation and maintenance for structural BMPs constructed on public or private property.	Yes – This ensures that structural controls are performing to its optimum by setting inspection and maintenance schedules to be met.
4.3	Site Plan Review	To ensure compliance with limits on maximum runoff rate, maximum impervious coverage, minimum landscaped area, minimum neighborhood park area for residential projects, and tree preservation requirements by reviewing all plans for new development/redevelopment	Yes – This comprehensive assessment considers water quality impacts from the beginning stages of a project and provides more opportunities for water quality protection.
4.4	Green Space Preservation	To ensure green space preservation by requiring each new or redeveloped single-family residential project that disturbs one acre or greater to dedicate a portion of the land to neighborhood parks.	Yes – Preserving pervious surfaces allows runoff to infiltrate into the ground; some of the pollutants present are removed by the soil and vegetation, while reducing the volume and velocity of runoff.

4.5	Tree Preservation Ordinance	To prohibit the removal of certain species of protected trees.	Yes – This provides small, but essential, green spaces that break up a landscape of impervious surfaces and provide pockets for runoff infiltration.
4.6	Inspection of Structural BMPs during Construction	To ensure proper installation and maintenance of sediment and erosion control measures by inspecting all active private construction sites regardless of the size of the land disturbance.	Yes – This ensures the storm water BMPs are installed properly, routinely inspected, and maintained so that these function efficiently in reducing/preventing polluted runoff from construction sites.
4.7	Limited Mowing Height	To protect the soil from erosion due to rain or irrigation by limiting the mowing of grass in parks areas to a minimum height and by designating no-mow areas.	Yes – This protects the soil from erosion and can allow for additional infiltration, reducing runoff.
5.1	Parks and Open Space Maintenance	To reduce the amount of pesticides and fertilizer used in parks and open spaces through the use of native plants in landscaping at city facilities, use of mulching mowers. To remove trash from parks and open areas.	Yes – The utilization of native plants, mulching and the like reduces applied pesticides and fertilizers and serves as a pollutant source reduction practice.
5.2	Road and Bridge Maintenance	To reduce water pollution from streets by sweeping the major streets once a month, picking up trash from roadways and ditches, and implementing erosion and pollution prevention practices during street repair activities.	Yes – This directly removes various pollutants from roadways and ditches on a regular basis.
5.3	Fleet Maintenance	To implement pollution prevention measures through inspections, good housekeeping practices, and spill response.	Yes – This reduces the impact the city's fleet maintenance has on the environment as this also entails recycling and proper disposal of the various wastestreams like used oil, anti-freeze, and tires.
5.4	Municipal Buildings and Parking Lots Maintenance	To develop and implement a pollution prevention plan for the maintenance of city facilities.	Yes – This reduces the impact the city may have on the storm water system during building and parking lot maintenance.
5.5	Storm Sewer System Maintenance	To ensure the storm water system is functioning properly by inspecting and maintaining the storm water system.	Yes – These routine inspections help determine if there are problems with the storm water system and allows for the timely repair and maintenance to have these functioning efficiently.
5.6	Waste Reduction of Information Technology and Communications Operations	To further reduce pollution from hazardous materials in batteries and computer equipment by recycling or properly disposing these.	Yes – Proper disposal of batteries and computer equipment reduces the impact that these items have on the environment.

5.7	Grease, Sand and Grit Trap Maintenance	To prevent sanitary sewer overflows by maintaining the city's grease, sand, and grit traps.	Yes – The inspections of these traps, both physically and through trip tickets, ensures proper frequency of pumping thereby preventing SSOs.
5.8	Sand Storage Locations	To reduce pollution run-off from sand, liquid deicer, and salt through proper storage, efficient application, and clean-up.	Yes – Proper storage, efficient application, and timely cleanup reduces consequent pollution resulting from these necessary safety applications and also reduces material costs.
5.9	City Owned Facilities	To list, inspect, and determine each facilities' potential to impact storm water.	Yes – These assessments aid in characterizing priority facilities in terms of monitoring and applying additional or site-specific BMPs to prevent pollution of the storm water system.
5.10	Structural Control Maintenance and Waste Disposal	To ensure the optimal operation of structural controls by keeping an inventory, ensuring maintenance of, and proper disposal of waste from these structures.	Yes – The maintenance of structural controls allows these to function properly and ensures the reduction of pollutants from getting into the surface waters.
5.11	New Construction and Land Disturbance	To apply for TPDES General Construction Permit for applicable city construction projects and ensure all permit requirements are met.	Yes – This ensures that the city is in compliance with state requirements.
5.12	Contractor Oversight Procedures	Contractually require contractors to comply with pollution prevention measures and ensure through oversight that they are following those procedures.	Yes – This enables the city to have better oversight over their contractors.
5.13	Fire Fighting Training Activities	To prevent the discharge of chlorinated water to the storm drain or creek by researching and implementing alternative methods for fire training activities.	Yes – This reduces the intrusion of chlorine into the surfaces waters and reduces its impact on fish and wildlife.
5.14	Employee Storm Water Pollution Prevention Training Program	To train all employees responsible for municipal operations subject to the pollution prevention and good housekeeping program.	Yes – This training provides both general storm water pollution prevention practices for municipal operations and also discusses operation-specific consequences and BMPs to minimize/prevent any adverse impacts.
6.1	Inspection of Industrial Facilities	To conduct inspections of industries that may impact storm water through their discharges and identify, or keep records of, industries that are required to obtain a storm water permit.	Yes – This inspection of industries establishes direct contact with one group of potential storm water polluters in the city, provides an assessment of their operations vis-à-vis impacts on storm water quality and recommendations to bring them into compliance with TCEQ's MSGP requirements and the city's storm water ordinance.
6.2	Inventory/ Inspection of Commercial Facilities	To determine impacts on the storm water system through inventory and inspection of commercial facilities.	Yes – This inspection of commercial facilities establishes direct contact with one group of potential storm water polluters in the city, provides an assessment of their services vis-à-vis impacts

		on storm water quality and recommendations to bring them into compliance with the city's storm water ordinance.

3. Describe progress towards reducing the discharge of pollutants to the maximum extent practicable.

BMP	Objective – BMP Description	Does BMP Demonstrate a Direct Reduction in Pollutants? (Yes /No / Explain)
1.17 Illicit Discharge Reporting Line	To provide a means for the public to report illicit discharges 24 hours a day that the city may not notice.	Yes – This provided a medium for the public report violators that the city may not have discovered. Citizens were active in reporting lawn companies blowing grass clippings and leaves into the street or storm inlet, drained pool water onto the streets, and other illicit discharges.
1.18 Volunteer Creek and Greenbelt Cleanup, Recycling, and Chemical Collection	To give residents and businesses an opportunity to participate in removing trash from the city parks and creeks.	Yes – This was an effective way to involve citizens and businesses to help cleanup and had a direct reduction in pollutants (floatables) in the storm water system and medications and grease in the sanitary sewer system. In this report period we had 9 volunteer groups that picked up 46 bags of trash for creek clean-ups; in the previous year there were 6 volunteer groups that collected 16 bags of trash; Medication Disposal Day – 1 event collected 3,473 pounds which was higher than the previous year when we collected 2,416 pounds; Cooking Oil Collection – 434.5 gallons collected this year and 383 gallons collected last year on the same dates.
2.3 Spill Response	To quickly respond to/clean up accidental or intentional releases of hazardous materials by having a staff member available for spill response 24/7.	Yes – Since spills do not just occur during office hours it is imperative to have a staff member available all the time. We responded to 161 spills and discharges during this reporting period which is significantly lower than the previous year when we responded to 412 spills and discharges.
2.4 Illicit Discharge Reporting Line	To provide a means for the public to report illicit discharges 24 hours a day that the city may not notice.	Yes – This allowed citizens to report discharges 24 hours a day. Citizens are active in availing of this reporting, resulting in the city being able to conduct enforcement on violators and to remediate the impact and reducing a possible bigger impact.
2.5 Construction Plans Review and Site Inspection for Illicit Connections	To review construction plans and perform site inspections for detection and elimination of illicit connections.	Yes – Ensured that there were no illicit connections to the storm drain system during the building process.

2.6	Illegal Dumping and Litter Control	To eliminate illegal dumping and littering through abatement and enforcement activities.	Yes – The city responded to 22 reports of illegal dumping and the Public Works Streets crews removed 12,668 pieces of trash from roads and ditches this year. The previous year we responded to 23 illegal dumping cases and collected 16,006 pieces of trash and debris.
2.7	Liquid Waste Program	To reduce the impact that liquid waste haulers and liquid waste generators have on our water quality through inspections, permits, and monitoring.	Yes – This established a direct contact and monitoring with various groups of potential polluters. Liquid waste haulers were required to be permitted in the city and to use trip tickets to verify that they are disposing of their wastes properly. The city permitted 104 trucks from 35 companies and issued 2 NOVs and 2 citations for either not having a permit or not filling out/submitting trip tickets properly. In the previous reporting year the city permitted 107 trucks from 32 companies, and 1 NOV and 5 citations issued.
2.8	Maintenance Program for Sanitary Sewers	To prevent and reduce sanitary sewer overflows through proactive maintenance of the sanitary sewer system.	Yes – The regular cleaning of pinpointed areas has reduced and prevented sanitary sewer overflows through preventive maintenance. In this report period we had 3 SSOs. There were no documented SSOs from these maintained areas.
2.9	Pet Waste Management	To require pet owners to remove pet wastes from both public and private areas.	Yes – Required pet owners to clean-up after their pets. Twenty-five (25) cases were investigated during this report period. During the previous reporting year fifteen (15) cases were investigated.
2.10	Dry Weather Discharge Screening	To participate in the regional protocol for dry weather screening and purchase items to use for monitoring.	Yes – This was a concrete way to detect and eliminate illicit discharges. 58 Outfalls were monitored 4 times during the reporting period for a total of 232 inspections.
2.11	Household Hazardous Waste Program	To provide residents with a means of disposing of their household hazardous waste at no additional charge by including this service in monthly sanitation fees.	Yes – This allowed residents to dispose of their household hazardous waste properly and at no additional cost. Waste Management collected 180,438 pounds from Carrollton residents. In the previous year, from October 1, 2015 - September 30, 2016 Carrollton residents disposed of 154,324.91 pounds of household hazardous waste through Waste Management's service.
3.3	Construction Site Inspection	To ensure proper installation and maintenance of sediment and erosion control measures by inspecting all active private construction sites regardless of the size of the land disturbance.	Yes – This ensured that the storm water BMPs were installed and maintained.

3.4	Response to Citizen Complaints	To respond to public inquiries, concerns, and complaints regarding all construction sites regardless of the size of the land disturbance.	Yes – The hotline provided a means for the public to report problems at construction sites and allowed the city to respond quickly, especially if there was an illicit discharge.
4.7	Limited Mowing Height	To protect the soil from erosion due to rain or irrigation by limiting the mowing of grass in parks areas to a minimum height and by designating no-mow areas.	Yes – This requirement protected the soil from erosion and allowed for additional infiltration, reducing runoff, and trapping some floatables.
5.1	Parks and Open Space Maintenance	To reduce the amount of pesticides and fertilizer used in parks and open spaces through the use of native plants in landscaping at city facilities, and the use of mulching mowers. To remove trash from parks and open areas.	Yes – This program reduced the amount of pollutants from city parks and Parks operations.
5.2	Road and Bridge Maintenance	To reduce water pollution from streets by sweeping the major streets once a month, picking up trash from roadways and ditches, and implementing erosion and pollution prevention practices during street repair activities.	Yes – The city directly removed various pollutants from roadways and ditches. Major arterials and selected city parking lots were swept monthly. 3,020.68 curb miles were swept during this reporting period where 2852.32 curb miles were swept during the previous reporting period. Crews removed 12,668 pieces of trash from the roadways and ditches during this reporting period, in the previous year they removed 16,006 pieces of trash.
5.3	Fleet Maintenance	To implement pollution prevention measures through inspections, good housekeeping practices, and spill response.	Yes – This reduced the impact the city's fleet maintenance had on the environmental with the collection, recycling for energy-blending, and proper disposal of its various waste streams.
5.4	Municipal Buildings and Parking Lots Maintenance	To develop and implement pollution prevention plans for the maintenance of city facilities.	Yes – This reduced the impact the city had on the environment during building and parking lot maintenance.
5.5	Storm Sewer System Maintenance	To ensure the storm water system is functioning properly by inspecting and maintaining the storm water system.	Yes – Routine inspections helped determine if there were problems with the storm water system, then the areas that needed to have maintenance were prioritized. During this reporting period the city inspected 49.06% of the storm inlets which was more than the previous reporting period when they inspected 47.25%.
5.6	Waste Reduction of Information Technology and Communications Operations	To further reduce pollution from hazardous materials in batteries and computer equipment by recycling or properly disposing these.	Yes – Proper disposal or recycling of batteries and computer equipment reduced the impact that these items would have had on the environment. The city recycled 4,138 pounds of electronic waste on 3/24/2017. In the previous year, the city recycled 4,438 pounds of electronic waste on 6/2/2016.

5.7	Grease, Sand and Grit Trap Maintenance	To prevent sanitary sewer overflows by maintaining the city's grease, sand, and grit traps.	Yes – Maintaining the grease/grit traps helped prevent SSOs from city facilities.
5.8	Sand Storage Locations	To reduce pollution run-off from sand, liquid deicer, and salt through proper storage, efficient application, and clean-up.	Yes – Proper storage, application, and cleanup prevented unnecessary pollution.
5.9	City Owned Facilities	To reduce pollutants from city facilities and SOPs for high priority facilities.	Yes – Through inspections and best management practices (BMPs) the amount of pollution from city facilities was reduced.
5.10	Structural Control Maintenance and Waste Disposal	To ensure the optimal operation of structural controls by keeping an inventory, ensuring maintenance of, and the proper disposal of waste from these structures.	Yes – Maintaining city owned and operated structural controls reduced pollutants in our creeks from city facilities.
5.13	Fire Fighting Training Activities	To prevent the discharge of chlorinated water to the storm drain or creek by researching and implementing alternative methods for fire training activities.	Yes – This reduced pollutants (chlorine) from being discharged into the storm drain or creek during training activities.
5.14	Employee Storm Water Pollution Prevention Training Program	To train all employees responsible for municipal operations subject to the pollution prevention and good housekeeping program.	Yes – City employees who could directly impact our storm water through our city operations (like Parks and Recreation, Streets, Drainage, Water, Wastewater) were trained so that they could identify areas in their work that could be causes for pollution and to recognize or change behaviors. Training began in September 2016 and was completed in October 2016.
6.1	Inspection of Industrial Facilities	To conduct inspections of industries that may impact storm water through their discharges and identify or keep records of industries that are required to obtain a storm water permit.	Yes – Inspections provide direct observations and contact for potential or actual discharges from the industries in the city. During this reporting year the city inspected 152 industries while in the previous reporting year the city inspected 227 industries.
6.2	Inventory/ Inspection of Commercial Facilities	To determine impacts on the storm water system through inventory and inspection of commercial facilities.	Yes – Provided direct contact and inspections to look for potential or actual discharges from the commercial businesses in the city (some commercial facilities, restaurants, and grit and grease traps). The city inspected 50 commercial facilities during this reporting period compared to 291 during the previous reporting period. The city also conducted 1,551 inspections at food establishments this year and 1,536 the previous year.

4. Provide a general evaluation of the program's progress, including any obstacles or challenges encountered in implementing BMPs, meeting the program's schedule, etc.

BMP	Measurable Goals	Success and How Goal was Achieved

1.1	Storm Water Reading Materials	1. Distribute copies of brochures to all display racks at city buildings and at all public events and presentations. (200 per year).	Exceeded Goal – distributed 1,466 brochures and educational materials. We also mailed 2,178 letters to residents on proper disposal of grass clippings.
		2. News briefs in local paper or mailers/utility bill inserts twice a year.	Exceeded Goal – Articles in newsletters, local newspaper, city website, Facebook, Twitter, and Netbill 42 times throughout the report period.
		3. Continue to update and distribute the storm water letters to all apartment managers currently in the database.	Met Goal – Mailed letters to all (85) apartment complexes/managers.
1.2	Public Presentations	1. Four presentations or outreach activities per year.	Exceeded Goal – conducted 25 presentations or outreach activities. 
1.3	Promotional Items	1. Distribute 200 promotional items per year.	Exceeded Goal – Distributed 1,367 promotional items
1.4	Annual "March is Texas SmartScape™ Month	1. Determine a level of participation in the regional "March is Texas SmartScape™ Month" program based on available resources, and select an outreach activity to conduct. Complete coordination with NCTCOG annually in February and conduct the selected activity(ies) annually in March. Repeat each year.	Met Goal – Set up March is Texas Smartscape Month display windows at Carrollton's 2 libraries during the month of March; "Liven Up Your Garden" ran in the February 2017 On the Horizon newsletter. According to NCTCOG, Carrollton residents had 1,093 sessions, with 67% being new sessions on the Texas SmartScape website.
1.5	Environmental Education for Commercial and Industrial Facilities	1. Develop educational items for distribution related to pollution prevention for industrial and commercial facilities.	Met Goal – Pollution Prevention posters for food establishments were developed in the first permit term. A packet of information was created for all new food establishments; the pollution prevention posters and grease posters are included.
		2. Distribute information to facilities. Update as needed.	Met Goal – Continued to distribute the pollution prevention posters to restaurants. The food establishment packet was distributed to all new food establishments at the time they applied for a permit.
		3. Hold annual industry meeting.	Met Goal – A meeting was held on September 18, 2017. Presentations included MSGP Basics and Grease/Grit Traps.

1.6	Environmental Education for Construction Site Personnel	1. Distribute information packet to 100% of applicants for a grading or building permit.	Met Goal – Distributed the storm water information packet during preconstruction meetings.
1.7	Storm Drain Marking	1. Placement or replacement of 100 markers per year.	Exceeded Goal – Volunteers placed 346 markers.
1.8	Storm Water and Pollution Prevention Videos and Public Service Announcements	1. Continue broadcast of Storm Water Management video or PSAs on local cable public access channel and on the storm water webpage.	Met Goal – Storm water cable slides and PSAs ran every day on the local cable channel. The PSAs ran every day at 6:45pm. Storm water videos are posted on the storm water web page.
		2. Evaluate acquisition of other videos and incorporate to video library if appropriate.	Met Goal – A training video for SSOs and Potable Water discharges was developed in conjunction with NCTCOG and area cities.
		3. Maintain library of videos. Include information on the web site.	Met Goal – A library of videos is available and included on the website.
1.9	TCEQ FOG Initiative	1. Distribute one to every new and existing restaurant currently in database listed as having a grease trap.	Met Goal – TCEQ Grease posters were given to all new food establishments applying for a food permit via a folder with other pertinent information.
		2. Distribute one to every manager of an apartment complex currently in the database at least once every year.	Met Goal – Distributed educational letters to all apartment complex managers.
		3. Routine inspections for posters displayed and redistribute posters as needed for every restaurant currently in database.	Met Goal – This was checked during each routine inspection for applicable establishments and documented on the inspection sheet. New posters were distributed as needed.
		4. Distribute grease control information to tenants in multifamily complexes yearly.	Met Goal – Distributed 15,975 grease control flyers to multifamily complexes from June 27-29, 2017.
		5. Distribute grease control information to industries yearly.	Met goal – No industries were identified as needing flyers during this reporting period.
		6. Grease control information provided in water bills and/or in the city newsletter three times a year.	Exceeded Goal – 10 articles on grease control appeared in the city newsletter, city website, Facebook, Twitter, and Netbill. Cable screens with grease control/recycling ran in October, November, and December 2016.
		7. Information posted on the city website.	Met Goal – Grease control information is available on the website at the following link:

			http://www.cityofcarrollton.com/departments/departments-g-p/public-works/fat-free-sewers.
		8. Three presentations per year.	Exceeded Goal – Thirteen (13) presentations, educational events, or grease collection events were conducted.
1.10	Household Hazardous Waste Site	1. Develop one mailer or water bill insert per year.	Met Goal – One article/newsletter was developed.
		2. Distribute mailer or water bill insert yearly.	Met Goal – The article appeared in the November 2016 On the Horizon newsletter. Cable screens on Household Hazardous Waste also ran every day of the year.
		3. Post information on the web page for every day of the year.	Met Goal – Posted on the web page at: http://www.cityofcarrollton.com/departments/departments-g-p/public-works/trash-recycling/residential-service/household-hazardous-waste.
1.11	Pet Waste Education	1. Distribute to all residents adopting or reclaiming a pet, at presentations, and public events.	Met Goal – The following educational items were distributed: bookmarks – 240; Pet waste containers with bags – 250; Animal Ownership brochures – 434.
		2. Maintain signs in parks and greenbelts as needed.	Met Goal – Signs are maintained. Also, new educational pieces were installed at the Rosemeade dog park which included 6 signs that will be rotated to help remind residents to pick up after their pets, also added were 4 pooper scoopers (in addition to the bags that are provided). 
1.12	Environmental Services website	1. Continue updating the information on the web page.	Met Goal – the website is updated as needed. http://www.cityofcarrollton.com/departments/departments-a-f/environmental-quality-services.
1.13	Electronic Newsletter for City Employees	1. Distribution of two electronic newsletters per year.	Met Goal – Two newsletters were developed and distributed. The December 2016 newsletter included information on how SSOs harm our creeks, tips to

			prevent SSOs, and health hazards associated with sewage. The December newsletter appeared in the December 16, 2016 City Council newsletter. The June 2017 newsletter included information on fish kills and May gardening tips. This newsletter appeared in the June 2, 2017 City Council Newsletter.
1.14	Environmental Educational School Kit	1. Distribute bags at events and or presentations.	Met Goal – The information packet on the Water/Environmental education programs was emailed to CFBISD on October 28, 2016. The information was sent again on September 6, 2017 for the start of the new school year.
		2. Review and update bags as needed.	Met Goal – information is reviewed and updated. The information has been modified and emailed to the school district listing the programs that are available regarding storm water and water conservation.
1.15	Comply with State and Local Public Notice Requirements	1. Publish notice of TCEQ determination on NOI and SWMP.	Completed – January 9, 2015
		2. Publish notice of Public Meeting if determined to be necessary by TCEQ.	Completed – Not needed as determined by TCEQ.
		3. Implementation Complete.	Completed – February 27, 2015
1.16	Public Meetings	1. Public meeting to introduce SWMP.	Completed – May 14, 2015
		2. A public meeting to update/evaluate SWMP for the next permit term.	Due December 12, 2018
		3. Implementation complete.	Due December 12, 2018
1.17	Discharge Reporting Line	1. Maintain illicit discharge reporting line.	Met Goal – The reporting line is still active.
1.18	Volunteer Creek and Greenbelt Cleanup, Recycling and Chemical Collection	1. One annual creek clean up or recycling event with volunteers.	Exceeded Goal – Creek clean-ups - 9 volunteers/volunteer groups picked up trash on 27 different days and collected 46 bags of trash; Medication Disposal Day – 1 event on April 29, 2017 collected 3473 pounds; Cooking Oil Collection – 1 event on November 2016 collected 434.5 gallons.
1.19	Citizens Advisory Committee	1. Annual meetings with Citizen Advisory Committee.	Met Goal – Meeting was held on May 4, 2017
		2. Design and disseminate an electronic survey to Carrollton residents regarding storm water issues.	On Track - Due December 12, 2018

2.1	Storm Sewer System Map	1. Verification of new or newly discovered outfalls.	Met Goal – 9 new outfalls were verified – total of 1,234.
		2. Map continuously updated as new data is obtained.	Met Goal – IT updates the maps as new data is obtained.
2.2	Storm Water Pollution Control Ordinance and Enforcement Response Guide	1 Review and revise the Storm Water Pollution Prevention Ordinance.	Completed – December 15, 2015
		2. Adoption of ordinance by City Council.	Completed – December 15, 2015
		3. Establish the Enforcement Response Guide.	Met Goal – the ERG has been established.
		4. Commence implementation of ERG.	Met Goal – ERG has been implemented.
		5. Implementation Complete.	Met Goal – Implementation has been completed.
2.3	Spill Response	1. Spill response plan in place.	Met Goal – responded to 161 spills or discharges.
		2. Review and revise the spill response manual and database.	Completed – December 12, 2015
2.4	Illicit Discharge Reporting Line	1. This BMP has been discussed in a previous section on the Public Participation and Involvement Minimum Control Measure, as BMP1.17. Achievements in this reporting period are described in said section.	Met Goal – See BMP 1.17
2.5	Construction Plans Review and Site Inspection for Illicit Connections	1. 100% new construction projects will undergo site plan review and will be inspected to ensure no illicit connections.	Met Goal – 100% new construction projects underwent site plan review and were inspected to ensure no illicit connections.
		2. Include plan review and site inspections for illicit connections in the appropriate SOP for construction.	Met Goal – Completed by Building Inspection in July 2015 and Engineering in December 2015.
2.6	Illegal Dumping and Litter Control	1. 90% active illegal dumping incidents – respond within one hour.	Met Goal – All illegal dumping cases were responded to, although none of the 22 illegal dumping cases were active dumping.
		2. 100% abatement of illegal dumping incidents.	Met Goal – All cases were either abated or in the process of being abated.
		3. 100% of incidents with identifiable responsible party to be followed by enforcement action.	Met Goal – All illegal dumping cases where there was an identifiable party were followed up by an enforcement action.
		4. Inspect 40% storm inlets per year.	Exceeded Goal – 49.06% inlets were inspected.
		5. 9000 pieces of trash collected from the roadways per year.	Exceeded Goal – Collected 12,668 pieces of trash from the roadways and ditches.
2.7	Liquid Waste Program	1. 100% permitted liquid waste haulers inspected once a year.	Met Goal – 35 companies with 104 permitted trucks.
		2. 100% permitted liquid waste haulers to submit used tickets monthly.	Met Goal – 2 NOVs and 2 citations issued for either not having a permit or not filling out/submitting trip tickets properly.

		3. 100% of identified facilities to use a permitted liquid waste hauler.	Met Goal – Trip tickets are reviewed during each routine inspection.
		4. Inventory of septic tanks in the city.	Met Goal – A list was created of septic tanks in the city.
		5. Develop Procedures to prevent and correct any leaking on-site sewage disposal system.	Due December 12, 2017 – On Track
2.8	Maintenance Program for Sanitary Sewers	1. Annual maintenance and inspection of sanitary sewer system.	Met Goal – Maintenance and inspections were performed.
		2. Clean miles of sewer lines based on the 5 year cycle.	Exceeded Goal – 217.64 miles were cleaned.
		3. Smoke and dye testing of 100,000 feet per year.	Exceeded Goal – 103,300 feet were tested.
		4. Conduct closed-circuit television inspections of 100,000 feet per year.	Exceeded Goal – 101,606 feet were inspected.
		5. Inspect 2100 manholes per year.	Exceeded Goal – 2,115 manholes were inspected.
		6. Repair and/or bring to grade 300 manholes per year.	Exceeded Goal – 563 were repaired.
		7. Lift stations inspected monthly.	Exceeded Goal – 988 inspections at the 19 lift stations. Weekly inspections were conducted.
		8. Tag high-risk sections of sanitary sewer system for inspection/ maintenance every 30 days (i.e. Maintain 30-day list). Review annually.	Met Goal – The 30-day list was maintained and had 9 sites listed at the end of this report period.
2.9	Pet Waste Management	1. Investigate all (100%) complaints received regarding improper disposal of pet waste.	Met Goal – Received 25 complaints and all were investigated; NCTCOG had 2 residents that pledged to pick up after their pets.
2.10	Dry Weather Discharge Screening	1. Employees or consultants attend the NCTCOG regional dry weather screening protocol training as needed.	Met Goal – Three employees attended the Dry Weather Screening Workshop and three employees attended Intermediate/Advanced Class. Carrollton also assisted in developing the course with NCTCOG.
		2. Review and revise if necessary the priority locations for screening.	Completed – December 12, 2015 – See Appendix II
		3. Review and revise the Dry Weather Field Screening Manual.	Completed – December 12, 2015
		4. Continue Dry Weather Field Screening at the priority locations.	Met Goal – Performed dry weather screening in January 2016 and June 2017; monitoring data is in Appendix II.
		5. Implementation Complete.	Completed – December 12, 2015
2.11	Household Hazardous Waste Program	1. Provide a household hazardous waste disposal program for Carrollton residents.	Met Goal – Service through Waste Management http://www.cityofcarrollton.com/departments/departments-g-p/public-works/trash-recycling/residential-service . During this report period Carrollton residents

			disposed of 180,438 pounds of household hazardous waste through Waste Management's service.
2.12	Water Main Breaks	1. Response procedures in place.	Met Goal – Response procedures continued to be implemented.
2.13	Employee Training for Illicit Discharges	1. Develop Training Program for all field employees	Met Goal – A training program or SOP was developed to train field employees on IDDE detection.
		2. Train all field employees.	On Track – Training of field employees continued during this reporting cycle (Building Inspectors, Engineering Inspectors, Environmental Services, Facilities, Fleet Contractor) and was combined with the 5.14 BMP Pollution Prevention Training for applicable departments (Public Works, Parks & Athletics).
3.1	Ordinance for Construction Site Erosion and Sediment Controls	1. Review and revise the Stormwater and Flood Protection ordinance.	Completed – June 9, 2015.
		2. Review and revise the SWPPO.	Completed before December 1, 2015.
		3. Adoption of ordinance by City Council, publication.	Completed – December 1, 2015.
		4. Implement ordinance changes.	Completed – December 12, 2015.
		5. Establish the Enforcement Response Guide (ERG).	Completed – July 25, 2016.
		6. Commence the implementation of ERG.	Met Goal – The ERG has been implemented.
3.2	Storm Water Pollution Prevention Plan Review and Submission of NOI/CSN	1. Engineering and Development Services require copies of either CSN or NOI and SWPPP from all operators disturbing one or more acres of land.	Met Goal – Both departments require a SWPPP and NOI/CSN to be submitted before a permit is issued.
		2. Procedures in place to obtain and review NOI and SWPPP of all (100%) construction sites required to obtain a NPDES/TPDES storm water permit.	Met Goal – The SWPPP and NOI/CSN are reviewed for content.
3.3	Construction Site Inspection	1. Conduct inspections of 100% NPDES/TPDES-permitted construction sites.	Met Goal – All active construction sites that are greater or equal to 1 acre or are part of the larger common plan of development have been inspected during this report period.
		2. Develop written procedures for site inspection and enforcement requirements.	Completed by December 12, 2015.
		3. Develop inspection sheet for use during construction site inspections.	Completed by December 12, 2015.
3.4	Response to Citizen Complaints	1. Maintain "hotline" for construction site concerns.	Met Goal – The "hotline" has been maintained for receiving citizen complaints which is the city's main

			line or the appropriate department's line. Development Services responded to 889 complaints.
3.5	Storm Water Information Package for Construction Site Operators	1. Update information package as needed.	Met Goal – The package is updated as needed, although no changes were made in this reporting year.
		2. Implement distribution plan through Engineering and Development Services.	Met Goal – The information was distributed during preconstruction meetings.
3.6	Preconstruction Meetings	1. Conduct preconstruction meetings with all (100%) applicants that apply for a grading or building permit.	Met Goal – Preconstruction meetings were held with all grading or building permit applicants.
3.7	Demolitions	1. Development Services requires copies of either CSN or NOI and SWPPP from all operators disturbing one or more acres of land, including the larger common plan of development.	Met Goal – Development Services or Environmental Services required a copy of the SWPPP and NOI/CSN where applicable.
		2. Obtain and review NOIs and SWPPPs of all (100%) demolition sites required to obtain a NPDES/TPDES storm water permit.	Met Goal – SWPPPs and NOIs/CSNs were obtained and reviewed when required.
3.8	Employee Training	1. Train all employees responsible for the implementation of the construction stormwater program.	Met Goal – Building Inspection was trained in-house on construction site inspections on June 1, 2017 and Engineering on June 22, 2017.
3.9	Construction Site Inventory	1. Inventory of all permitted active public and private construction sites 1 acre or part of a larger common plan of development.	Met Goal – Development Services and Engineering maintain an inventory of their active construction sites.
4.1	Review of Subdivision Ordinance and General Design Standards	1. Review and update the Stormwater and Flood Protection Ordinance.	Completed – June 9, 2015.
		2. Yearly review of the General Design Standards.	Met Goal – The yearly review was conducted but no changes were made or suggested.
		3. Establish the Enforcement Response Guide.	Completed – July 25, 2016.
		4. Commence implementation of the ERG.	Met Goal – ERG has been implemented.
4.2	Long-Term Operation and Maintenance Plan for Structural BMPs	1. Identify procedures and methods to ensure long-term maintenance of structural BMPs.	Met Goal – The city already had procedures and methods in place to ensure long-term maintenance of city structural BMPs. The revisions to the Stormwater and Flood Protection Ordinance also included more specific maintenance procedures for structural BMPs.
		2. Implement procedures and methods to ensure long-term maintenance of structural BMPs.	Met Goal – The city continued to implement procedures and methods to ensure the long-term maintenance of city structural BMPs.

		3. List of all Structural BMPs to be inspected.	Met Goal – A list of BMPs to be inspected has been created but will be continually updated as needed.
		4. Receipt of Maintenance Plan for structural controls installed at a site.	Met Goal – A maintenance plan is noted on the Plat about the maintenance responsibilities.
		5. Develop inspection form.	Exceeded Goal – An inspection form was developed for retention/detention ponds and for permeable pavers.
		6. Begin inspections of structural controls.	Exceeded Goal – Inspections began in this reporting year.
4.3	Site Plan Review	1. Site plan review of 100% new development/ redevelopment projects.	Met Goal – Site plan review was performed on 100% of new and redeveloped projects.
		2. SOP for Construction Site Plan review.	Completed December 12, 2015.
4.4	Green Space Preservation	1. Implementation of green space preservation policies in 100% new projects.	Met Goal – The green space preservation policies applied to 100% of new projects in this reporting term.
4.5	Tree Preservation Ordinance	1. Implementation of Tree Preservation Ordinance in 100% new projects.	Met Goal – The Tree Preservation Ordinance continued to be implemented in this reporting period.
4.6	Inspection of Structural BMPs during Construction	**See section *3.3, Construction Site Inspection.***	Met Goal – See Section 3.3 Construction Site Inspection.
4.7	Limited Mowing Height	1. All park areas will be mowed at a frequency to ensure a minimum height of 2.5 inches of ground coverage.	Met Goal – Mowers were set for a minimum height of 2.5 inches.
5.1	Parks and Open Space Maintenance	1. Mowing crews pick up trash during maintenance of public green areas (approximately 200 days per year). Use mulching mowers. Leaf blowers used to blow clippings back onto grass.	Met Goal – Mowing crews picked up trash at least 200 days per year; Used mulching mowers; leaf blowers were used to blow clippings back onto the grass. The net at Josey Ranch collected 182 pounds of paper and plastic items.
		2. Buffer zones and no mow zones.	Met Goal – The city currently has 7 buffer and no mow zones to help with erosion and pollutant removal.
		3. Continue to implement native species landscaping and mowing restrictions where applicable.	Met Goal – Parks purchased a wildflower mix in September 2016. The Police Department remodel included native species in the landscaping. Mowing height restrictions continued at 2.5 inches.
		4. Develop schedules for chemical application on public spaces.	Completed in October 2014.

		5. Develop a list of pollutants of concern from mowing, chemical application, and planting vegetation.	Met Goal – A list of pollutants was created.
		6. Continue to implement the Integrated Pest Management Plan.	Met Goal – Integrated Pest Management Plan continued to be implemented for Animal Services and Parks and Recreation.
		7. Proper disposal method for unused pesticides, herbicides, and fertilizers.	Met Goal – A disposal method was added to the chemical application SOP.
		8. Maintain Licensed Pesticide Applicators and Licensed Irrigators.	Met Goal – The city had 11 Licensed Pesticide Applicators (Parks 6 Animal Services 2, Development Services 1, ICGC 2) and 4 Licensed Irrigators (Parks 3, Development Services 1).
5.2	Road and Bridge Maintenance	1. Major arterials swept once a month, including the selected municipal parking lots.	Met Goal – 3,020.68 curb miles were swept in this reporting year and included major arterials and selected municipal parking lots.
		2. Develop a procedure for street sweeping waste material disposal.	Met Goal – The contractor submitted a procedure for disposing of street sweeping waste material.
		3. Collect approximately 9000 trash and debris items from roadways and ditches.	Exceeded Goal – 12,668 pieces of trash were collected.
		4. Review and update erosion and pollution prevention guidelines for road and bridge repair operations.	Completed May 24, 2016.
		5. Develop list of pollutants of concern from road and bridge maintenance.	Met Goal – A list of pollutants of concern from road and bridge maintenance was developed.
5.3	Fleet Maintenance	1. Weekly inspection/cleaning of maintenance and fueling facilities. Continue to implement spill response and pollution prevention plans (SPCC) at each fueling facility.	Met Goal – Inspections and maintenance at fueling facilities continued.
		2. Develop an SOP for each of the three maintenance facilities.	Met Goal – An SOP was developed for the 3 maintenance facilities at Central Service Center (Fleet), Sandy Lake Service Center (Fleet), and Indian Creek Golf Course.
		3. All vehicles and equipment washed in bays or commercial vehicle wash.	Met Goal – City vehicles and equipment were washed at the wash bays or a contracted commercial facility.
		4. Develop SOP for vehicle and equipment washing.	Completed by December 12, 2014 and was posted at the Central Service Center wash bay.
		5. Sand traps are services as required by city ordinance. All wash bays are under a cover. Continue spill response and pollution prevention plans. Spill kits and signs deployed at all fueling stations.	Met Goal – Traps were serviced as required, wash bays are under cover, spill response and pollution prevention plans were continued, spill kits and signs

	Continue plan to address leaks from vehicles during normal use by a city employee.	were maintained, the plan to address leaks from vehicles during normal use by a city employee continued.
	6. Parts and materials stored under cover. Continue recycling program for materials.	Met Goal – Fleet stores all materials under cover or inside the building except repaired vehicles and vehicles to be repaired. Recycling for used oil, antifreeze, oil filters, used tires, batteries, cardboard, spent solvent, and scrap metal. Public Works stored chemicals under cover and most of the sand bins are covered.
	7. Continue to implement plan to address leaks from vehicles during daily use by an employee.	Met Goal – Forms continued to be signed by all employees during New Employee Orientation.
	8. Maintain SWPPP/Annual Inspection of the Central Service Center maintenance yard.	Met Goal – An inspection was done on May 23, 2017 for the Public Works yard and for Fleet maintenance.
	9. Quarterly inspections of the ICGC.	Met Goal – Inspections were performed quarterly.
5.4 Municipal Buildings and Parking Lots Maintenance	1. Continue to develop and implement a spill response and pollution prevention plan for building and parking lot maintenance (SPCC). Continue research in waste reduction/ recycling options.	Met Goal – SPCC and the pollution prevention plan continued to be implemented. Waste reduction and recycling options continued for office materials. The city recycled 4.66 tons of office materials.
	2. Continue inspections of Municipal Buildings and parking lots, including the Public Works yard.	Met Goal – Municipal buildings, parking lots and the public works yard were inspected.
	3. Evaluate spill response and pollution prevention plan, adjust plan as necessary.	Met Goal – The SPCC was updated in September 2016.
	4. Develop a list of pollutants of concern from municipal buildings and parking lot maintenance.	Met Goal – A list of pollutants of concern was developed.
5.5 Storm Sewer System Maintenance	1. Maintain the plan for storm water system maintenance.	Met Goal – The SOP was continued. All channels were inspected and 49.06% of the inlets were inspected.
	2. Maintain the current schedule for maintenance operations. Revise as necessary.	Met Goal – Channels and inlets are inspected and cleaned or repaired as needed based on the inspections.
	3. Continue current procedures to address complaints and other problems. Revise as necessary.	Met Goal – Complaints are addressed as needed.
	4. Continue to inspect lift stations monthly.	Exceeded Goal – storm lift stations were inspected weekly – 104 inspections between the 2 lift stations.

		5. Develop a list of potential problem areas for increased inspections.	Due December 12, 2017 – Completed after this reporting period.
5.6	Waste Reduction of Information Technology and Communications Operations	1. Continue recycling of all batteries, cables, aluminum scrap, computer parts, and printer cartridges from IT operations.	Met Goal – On 3/24/2017 the city recycled 4,138 pounds of electronic waste.
		2. Continue feasible procedures to collect and recycle batteries from deployed equipment.	Met Goal – Procedures are in place and continue to be implemented to collect and recycle batteries from deployed equipment including cell phones, two way radios, and uninterruptible power supply. Batteries were brought to Xerox, where they determined if the batteries were still useful or not, then the batteries were placed in a plastic bag and box provided by the recycling company.
5.7	Grease, Sand and Grit Trap Maintenance	1. Continue current pumping frequency.	Met Goal – Except at the new fire station which will be pumped every 6 months and the Senior Center which is pumped as needed since it is not used for commercial purposes but is being changed to every 6 months.
		2. Evaluate pumping frequency according to City Ordinance and change as necessary.	Met Goal – Except at the Senior Center which was pumped as needed but is being changed to every 6 months.
5.8	Sand Storage Locations	1. Limit sand, salt, and liquid deicer application to minimum amount necessary to ensure safe driving and walking conditions.	Met Goal – Public Works used the following amounts: Liquid deicer – used 250 gallons; Sand – used 7.75 cubic yards. Facilities did not apply any deicer materials.
		2. Maintain SDS on site for salt and liquid deicer.	Met Goal – SDSs are maintained on site.
		3. Implement appropriate controls for sand, salt, and liquid deicer storage.	Met Goal – Controls are in place for sand, salt, and liquid deicer.
		4. Identify pollutants of concern from the three materials used.	Completed – May 23, 2016.
		5. Develop written Pollution Prevention Measures to reduce the discharge of pollutants from this BMP.	Met Goal – Pollution prevention measures for sand, salt, and liquid deicer was developed.
		6. Inspect controls for sand, salt, and deicer storage.	Met Goal – Sand, salt, and liquid deicer controls were inspected during the annual facility inspections and weekly inspections.
		7. Implementation Complete.	Met Goal – implementation complete.

5.9	City Owned Facilities	1. Inventory of city owned facilities.	Completed by December 12, 2015 but will be updated as needed.
		2. Map of city owned facilities & other storm water controls.	Completed by December 12, 2015.
		3. Assessment of city owned facilities.	Met Goal – Completed by December 12, 2016.
		4. Identification of high priority facilities.	Met Goal – Completed by December 12, 2016.
		5. Development of facility specific SOPs for high priority facilities.	Met Goal – SOPs for high priority facilities have been developed.
		6. Inspection of city facilities.	Exceeded Goal – Due by December 12, 2018, however, all but 2 high priority facilities were inspected during this year.
5.10	Structural Control Maintenance and Waste Disposal	1. Review, update, and log data of the inventory of structural controls.	Met Goal – The inventory of structural controls has been updated.
		2. Continue inspection of structural controls and implement maintenance plan.	Met Goal – Maintenance of detention/retention ponds and swales are done by Parks or a contractor; maintenance and inspections of channels is done by Public Works.
5.11	New construction and Land Disturbance	1. Comply with TPDES construction storm water permit requirements for projects in which the city meets the definition of operator.	Met Goal – The city complied with TPDES construction permit requirements for those projects that were applicable.
		2. Require contractors of municipally owned construction projects to comply with TPDES construction storm water permit requirements.	Met Goal – Contractors were required to comply with the TPDES construction permit requirements.
5.12	Contractor Oversight Procedures	1. Develop a list of contractors.	Completed by December 12, 2015.
		2. Contractually require contractors to comply with storm water control measures, good housekeeping practices and facility-specific SOPs.	Completed by December 12, 2015.
		3. Develop Oversight Procedures.	Due December 12, 2018.
		4. Implementation Complete.	Due December 12, 2018.
5.13	Fire Fighting Training Activities	1. Continue implementing BMPs during training activities.	Met Goal – Fire continues to implement BMPs during training activities.
5.14	Employee Storm Water Pollution Prevention Training Program	1. Participate in the NCTCOG regional program to identify pollution prevention training materials and/or develop new materials as needed.	Met Goal – Staff attended the NCTCOG Pollution Prevention Task Force Meetings and participated in developing training materials,
		2. Continue training all employees in departments responsible for operations or maintenance functions. Document training.	Met Goal – Training began in September 2016 and was completed by the end of October 2016. In addition, employees continue to attend storm water

			training such as Dry Weather Field Screening, Advanced IDDE, EPA MS4 Conference, Annual Inspection and Maintenance Course for Post Construction BMPs, and a general storm water video is viewed by all new employees. This measure will be completed again by December 12, 2018.
6.1	Inspection of Industrial Facilities	1. Annually inspect 100 industrial facilities.	Exceeded Goal – Inspected 155 industries (28 regulated and 124 from waste surveys) – the regulated industries received 5 NOVs.
		2. Identify industries needing to apply for a TPDES/NPDES permit and require proof of permit coverage within 6 months of identification. Survey to be done every 3 years.	Met Goal – Industries have been identified and required to obtain coverage under the MSGP. The waste survey is done every 3 years.
		3. Implementation complete.	Met Goal.
6.2	Inventory/ Inspection of Commercial Facilities	1. Maintain an inventory of commercial facilities with grease/grit traps.	Met Goal – An inventory of grease/grit traps has been maintained.
		2. Conduct one inspection per year for all food establishments.	Exceeded Goal – Many food establishments were inspected multiple times – conducted 1,551 inspections at 651 food establishments.
		3. Conduct at least 25 commercial inspections per year.	Exceeded Goal – Inspected 50 commercial facilities.
		4. Inspect all active grease/grit traps in database once per year.	Met Goal – All active grease/grit traps have been inspected.
		5. Implementation complete.	Met Goal.

C. Stormwater Data Summary

Provide a summary of all information used including any lab results to assess the success of the SWMP at reducing the discharge of pollutants to the MEP.

Surface Water Monitoring was conducted four times in this reporting period. The monitoring data results were utilized as one of the criteria in selecting the outfalls monitored during Dry Weather Screening. The Surface Water monitoring data was used to obtain a Water Quality Index (WQI) rating for each monitored segment. The WQI was based on five parameters: pH, DO, Turbidity, Total Phosphate, and Nitrate. The WQI calculator used was from the Wilkes University Center for Environmental Quality Environmental Engineering and Earth Sciences website at http://www.water-research.net/watrqualindex/index.htm. Six creeks were monitored with 18 sampling locations, namely: Indian Creek, Dudley

Branch, Furneaux Creek, Hutton Branch, Cooks Branch, and the Valwood Improvement Channel. The WQI results from the December/January 2016/2017 data were 1 location had a Medium rating, 6 had a Good rating, 1 had a Good/Excellent rating, and 10 had an Excellent rating. The results from the June 2017 monitoring had one location with a Medium rating, 13 with a Good rating, and 4 with an Excellent WQI rating. The surface water monitoring data was reviewed in June 2015 and 58 new outfalls were selected to be monitored for Dry Weather Screening. Dry Weather Screening was conducted at the 58 outfalls in January 2017 and June 2017. The data from the surface water monitoring and dry weather screening are included in this report and can be found in Appendix I and II. The city responded to 161 spills and illicit discharges, 22 illegal dumping cases and 25 complaints about pet waste. Parks removed trash from greenbelts and waterways at least 200 days a year, collected and removed 182 pounds of paper and plastic from the net at Josey Ranch Lake, and Public Works removed 12,668 pieces of trash from the roadways and ditches. Residents disposed of 180,438 pounds of household hazardous waste through the free service. The city swept 3,020.68 curb miles which included the major arterials and selected city parking lots. 49.06% of storm drain inlets were inspected. We conducted stormwater inspections at 1,551 food establishments, 50 commercial facilities, and 152 industries. All active grease traps were inspected.

D. Impaired Water Bodies

1. Does the MS4 discharge to an impaired water body on the Texas 303(d) List? No
2. Does the MS4 discharge to a water body on the Index of All Impaired Waters? No

E. Stormwater Activities Next Reporting Year

Describe any activities planned for the next permit year/reporting cycle.

Activities for the next reporting cycle include all of the activities: (1) with a year due of 0 (recurring activities); (2) with the year due of December 12, 2017 that have not already being implemented within this reporting cycle; and (3) with a year due of December 12, 2018 that have not been implemented yet.

The activities with a due date of December 12, 2017 (and will be reported in the next reporting cycle) include:

MCM	BMP	Stormwater Activity	Description/Comments
2	2.7 Liquid Waste Program	5. Develop Procedures to prevent and correct any leaking on-site sewage disposal system.	Procedures will be developed detailing how to prevent and correct leaking on-site sewage disposal systems.
5	5.5 Storm Sewer System Maintenance	5. Develop a list of potential problem areas for increased inspections.	A list of potential problem areas will be developed for increased inspections.

The activities due by December 12, 2018 include:

MCM	BMP	Stormwater Activity	Description/Comments
1	1.16 Public Meetings	2. A public meeting to update/evaluate SWMP for the next permit term.	Due December 12, 2018.

1	1.19	Citizens Advisory Committee	2. Design and disseminate an electronic survey to Carrollton residents' citizens regarding storm water issues.	On Track - Due December 12, 2018.
2	2.13	Employee Training for Illicit Discharges	2. Train all field employees.	Due December 12, 2018 – began training employees during 2017.
5	5.9	City Owned Facilities	6. Inspection of city facilities.	Due December 12, 2018.
5	5.12	Contractor Oversight Procedures	3. Develop Oversight Procedures.	Due December 12, 2018.
			4. Implementation Complete.	Due December 12, 2018.
5	5.14	Employee Storm Water Pollution Prevention Training Program	2. Continue training all employees in departments responsible for operations or maintenance functions. Document training.	Due December 12, 2018.

F. SWMP Modifications and Additional Information

1. Changes have been made or are proposed to the SWMP since the NOI or last annual report, including changes in response to TCEQ's review.
   ___Yes _X_No

G. Additional BMPs for TMDLs and I-Plans

1. Provide a description and schedule for implementation of additional BMPs that may be necessary, based on monitoring results, to ensure compliance with applicable TMDLs and implementation plans.
   Additional BMPs are not necessary at this time since we do not have a TMDL or implementation plan.

H. Additional Information:

1. Is the permittee relying on another entity/ies to satisfy some of its permit obligations? No
2a. Is the permittee part of a group sharing a SWMP with other entities? No
2b. Is this a system–wide annual report including information for all permittees? N/A

I. Construction Activities

1. Provide the number of construction activities (other than those where the permittee was the operator) that occurred within the regulated area as indicated via notices of intent or construction site notices in this report period.
   No. of non-municipal construction activities: 20
   No. of municipal construction activities greater than or equal to 1 acre: 4
2. Does the permittee utilize the optional 7th MCM related to Construction? No

Appendix I

Surface Water Monitoring Data

Date:	Sampling Location:	Water Temp (°C)	pH	DO (mg/L)	Conductivity (µS)	Turbidity (NTU)	Total Phosphate (mg/L)	Nitrate (mg/L)	WQI (Based on 5 factors)
12/28/2016	IC1	16.6	7.84	11.4	764	23.5	0	0.176	88 - Good
12/28/2016	IC2	16.8	8.01	10.6	852	9.9	0.06	0	91 - Excellent
01/09/2017	FC1A	8.1	7.73	12.4	604	11.1	0.06	0.088	93 - Excellent
01/09/2017	FC2	8	7.74	15.1	675	6.2	0.04	0	91 - Excellent
01/09/2017	FC3	9.7	7.79	13.4	535	9.47	0	0	91 - Excellent
01/09/2017	FC4	11.6	7.85	11.8	944	6.9	0	0.176	94 - Excellent
01/09/2017	FC5	7.8	7.7	13.6	578	1.99	0	0.176	94 - Excellent
01/09/2017	HB1	13.9	7.52	12.4	607	6.78	0.02	0	92 - Excellent
01/09/2017	HB2	5.3	7.81	15.1	626	1.66	0.04	1.144	93 - Excellent
01/09/2017	HB3	6.2	7.52	14.2	450	17.4	0.04	0.264	90 - Good/Excellent
01/09/2017	HB4A	8.2	7.23	11.7	655	2.19	0.16	4.4	90 - Excellent
01/09/2017	HB5	7.9	8.06	14.5	497	1.21	0.4	4.4	81 - Good
12/28/2016	DB1	18.6	7.59	5.6	1402	2.47	0.08	0	84 - Good
12/28/2016	DB2	20	7.84	5.9	1375	18.6	0.08	0.088	82 - Good
12/28/2016	DB3	19.8	8	17.5	1356	2.08	0.04	0	80 - Good
12/28/2016	CB1A	19	8.09	9.1	648	4.69	0.12	0.704	93 - Excellent
12/28/2016	CB2	19.5	8	7.2	713	2.4	0.28	0	88 - Good

12/28/2016	VI1	22.3	9.08	16.9	661	6.41	0.54	0	64 - Medium

Date:	Sampling Location:	Water Temp (°C)	pH	DO (mg/L)	Conductivity (µS)	Turbidity (NTU)	Total Phosphate (mg/L)	Nitrate (mg/L)	WQI (Based on 5 factors)
06/13/2017	IC1	26.9	7.79	6.3	762	43.2	0.1	2.288	84 - Good
06/13/2017	IC2	26.1	7.76	6	793	37.4	0.06	0.352	84 - Good
06/08/2017	FC1A	27.6	7.49	4.9	538	22.9	0.1	0.088	80 - Good
06/08/2017	FC2	26.7	7.24	5.7	460	8.92	0.04	0.088	87 - Good
06/08/2017	FC3	27.3	7.82	6.8	486	5.93	0.04	0.352	93 - Excellent
06/08/2017	FC4	24.7	7.51	4.8	786	11.3	0.06	0.26	80 - Good
06/08/2017	FC5	24	7.32	4.8	616	12	0.04	3.08	78 - Good
06/12/2017	HB1	29.8	7.44	7	495	9.86	0.06	0.176	94 - Excellent
06/12/2017	HB2	26.5	7.41	7.5	674	8.45	0.08	0	94 - Excellent
06/12/2017	HB3	27.4	7.06	4.6	352	12.8	0.06	0	79 - Good
06/12/2017	HB4A	24.4	7.03	7.1	754	2.8	0.04	4.4	88 - Good
06/12/2017	HB5	24	7.63	11.3	602	3.97	0.04	3.96	85 - Good
06/13/2017	DB1	28.7	7.64	5.3	790	36.8	0.14	0	81 - Good
06/13/2017	DB2	26.6	7.81	6	1189	11.9	0.14	0.264	88 - Good
06/13/2017	DB3	27.2	7.76	11.3	1009	3.53	0.08	0.088	80 - Good
06/12/2017	CB1A	25.5	7.68	10.2	721	1.98	0.16	0.264	91 - Excellent
06/12/2017	CB2	26.6	7.56	10.8	684	7.01	0.3	0	77 - Good
06/12/2017	VI1	30.8	9.4	15.1	420	8.71	0.5	0.88	61 - Medium

Appendix II

Outfalls to be Monitored, Surface Water Monitoring Data and Dry Weather Screening Data

Outfalls to be Monitored for Dry Weather Screening 2015

Indian Creek:	Reason for Selection:	Site Description:
OF 4040	Kohl's shopping center OF	north of Kohl's on southeast side of detention area
OF 4041	Outfall for apartment, residential & commercial (Kroger shopping center)	north east side of the detention area opposite of Kohl's outfall
OF 0309	Commercial outfall	northwest side behind the shopping center at Old Denton and Hebron - north outfall
OF 0308	Commercial outfall	northwest side behind the shopping center at Old Denton and Hebron - south outfall
OF 0428	Commercial outfall	Huffines and W. Hebron - across from the daycare on Huffines
OF 0382	Large residential outfall	end of Legacy at Creekside
OF 0379	Large residential outfall	Creekside - northeast of OF0382

Hutton Branch:	Reason for Selection:	Site Description:
OF 4355	Apartment Complex outfall - right	drainage channel for Trinity Crossing Apts
OF 1296	Apartment Complex outfall - left	drainage channel for Trinity Crossing Apts
OF 1279	Residential outfall	along Kelly North side of the channel where HB4 sample is taken
OF 1281	Residential outfall	along Kelly North side of the channel upstream of OF1279
OF 1443	Residential outfall	west of Wentwood and Old Mill Rd - drains Renwick and Wentwood

Cooks Branch:	Reason for Selection:	Site Description:
OF 1118	drains large residential area	Northeast side of channel at Nix and Fyke
OF 1112	Large residential outfall	Southside of Fyke on Farmers Branch Side

VI Channel:	Reason for Selection:	Site Description:
All outfalls	all industrial/commercial outfalls	entire length of Valwood Improvement Channel – 44 outfalls

Indian Creek:

Surface Water Monitoring

Date:	Location:	Water Temp (°C)	pH	DO (mg/L)	Conductivity (□S)	Turbidity (NTU)	Total Phosphate (mg/L)	Nitrate (mg/L)	Oil Sheen	Trash	Odor	Water Color	WQI
01/20/2014	IC-1	8.8	8.13	12.3	890	7.25	0.04	0.44	no	yes	no	clear/brown	92 - Excellent
07/09/2014	IC-1	30.2	7.82	10.7	319	198	0.66	0.088	no	no	no	cloudy/brown	60 - medium
03/23/2015	IC1	20.4	8.07	10	832	15.7	0.12	1.76	No	no	no	Clear/brown	88 – Good
07/28/2015	IC1	30.9	7.91	5	550	89	0.56	0	no	no	no	cloudy/brown	70 - Medium/Good
01/25/2016	IC1	10.8	8.66	11.1	268	22.5	0.04	0.264	No	No	No	Cloudy/brown	85 - Good
06/06/2016	IC1	24.6	8.04	6.9	721	73.6	0.1	3.08	no	no	no	cloudy/brown	80 - Good
12/28/2016	IC1	16.6	7.84	11.4	764	23.5	0	0.176	no	Yes	No	Clear/brown	88 - Good
06/13/2017	IC1	26.9	7.79	6.3	762	43.2	0.1	2.288	no	No	no	Clear	84 - Good

Dry Weather Screening:

Outfalls:	OF4040		OF4041		OF0309		OF0308		OF0428		OF0382		OF0379	
	1st Visit	2nd Visit	1st Visit	2nd Visit	1st Visit	2nd Visit	1st Visit	2nd Visit	1st Visit	2nd Visit	1st Visit	2nd Visit	1st Visit	2nd Visit
Date/Time:	1/26/17 10:35am	1/26/17 4:25pm	1/26/17 10:40a	1/26/17 4:25pm	1/26/17 10:59a	1/26/17 4:49pm	1/26/17 10:57a	1/26/17 4:47pm	1/26/17 11:07a	1/26/20 17 4:55pm	1/26/17 11:11am	1/26/17 4:59pm	1/26/17 11:19a	1/26/17 5:02pm
Flow			Low	Low	None	None	None	None	None	None	None	None	None	None
pH (ppm)			8.07	8.16										

Conductivity (µS)			>1990	>1990										
Detergent (ppm)			0	0										
Ammonia Nitrogen (ppm)			0	0										
Water Temp (°F)			12.4	13.5										
Turbidity (NTU)			1.72	1.94										
Chlorine (ppm)			0	0										
Color			Clear	Clear										
Odor			No	No										
Sewage			No	No										
Surface Scum			No	No										
Trash			No	No										
Oil Sheen			No	No										

Outfalls:	OF4040		OF4041		OF0309		OF0308		OF0428		OF0382		OF0379	
	1st Visit	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**
Date/Time	6/14/17 2:10pm	6/15/17 1:30pm	6/14/17 2:12pm	6/15/17 1:32pm	6/14/17 2:32pm	6/15/17 1:48pm	6/14/17 2:34pm	6/15/17 1:50pm	6/14/17 2:40pm	6/15/17 1:54pm	6/14/17 2:46pm	6/15/17 2:01pm	6/14/17 2:245m	6/17/17 2:03pm
Flow	None	None	Low	Low	None	None	None	None	None	None	None	None	None	None
pH (ppm)			8.26	8.02										
Conductivity (µS)			>1990	>1990										

Detergent (ppm)			0	0										
Ammonia Nitrogen (ppm)			0	0										
Water Temp (°F)			26	27.5										
Turbidity (NTU)			1.68	2.6										
Chlorine (ppm)			0	0										
Color			Clear	Clear										
Odor			No	No										
Sewage			No	No										
Surface Scum			No	No										
Trash			No	No										
Oil Sheen			No	No										

Hutton Branch:

Surface Water Monitoring

Date:	Location:	Water Temp (°C)	pH	DO (mg/ L)	Conductivity (□S)	Turbidity (NTU)	Total Phosphate (mg/L)	Nitrate (mg/L)	Oil Sheen	Tras h	Odor	Water Color	WQI
01/20/2014	HB-5	11.4	7.61	10.8	648	0.89	0.02	1.672	no	yes	no	clear	96 - Excellent
07/14/2014	HB-5	25.5	7.62	5.2	588	1.57	0.12	0.968	no	yes	no	clear	86 - Good
03/24/2015	HB-5	17	7.88	8.7	699	2.77	0.08	3.96	No	Yes	No	Clear	89 - Good
07/27/2015	HB-5	26.3	7.63	6.9	653	1.18	0.16	0.88	No	Yes	No	Clear	94 - Excellent
01/25/2016	HB-5	14.3	8.23	7.3	629	1.06	0.06	0.88	No	Yes	No	Clear	87 - Good

06/07/2016	HB-5	23.1	8.03	6.3	692	450	0.26	4.4	No	Yes	Yes	Cloudy Brown	69 - Medium
12/28/2016	HB-5	7.9	8.06	14.5	497	1.21	0.4	4.4	No	Yes	No	Clear	81 - Good
06/12/2017	HB-5	24	7.63	11.3	602	3.97	0.04	3.96	No	Yes	No	Clear	85 - Good

Dry Weather Screening

Outfalls:	OF4355		OF1296		OF1279		OF1281		OF1443	
	1st Visit	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**
Date/Time:	1/26/2017 12:10pm	1/27/2017 10:08am	1/26/2017 12:10pm	1/27/2017 10:08am	1/26/2017 12:30pm	1/27/2017 10:28am	1/26/2017 12:27pm	1/27/17 10:27am	1/26/17 11:45am	1/27/17 11:05am
Flow	None	None	Low	Low	None	None	None	None	Medium	Medium
pH			7.91	7.48					7.61	7.39
Conductivity (µS)			769	547					908	779
Detergent (ppm)			0	0					0	0
Ammonia Nitrogen (ppm)			0	0					0	0
Water Temp (°F)			13.6	11.5					16.5	16.8
Turbidity (NTU)			9.3	7.7					0.77	1.03
Chlorine (ppm)			0	0					0	0
Color			Clear	Clear					Clear	Clear
Odor			Rusty	Rusty					No	No
Sewage			No	No					No	No

Surface Scum			No	No					No	No
Trash			No	No					No	No
Oil Sheen			No	No					No	No

Outfalls:	OF4355		OF1296		OF1279		OF1281		OF1443	
	1st Visit	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**
Date/Time:	6/14/2017 12:12pm	6/15/2017 10:05am	6/14/2017 11:55am	6/15/2017 10:05am	6/14/2017 12:47pm	6/15/2017 10:50am	6/14/2017 12:45pm	6/15/17 10:48am	6/14/17 12:25pm	6/15/17 10:26am
Flow	Low	None	Low	Low	None	None	None	None	Medium	Medium
pH	7.65		7.7	7.85					7.5	7.4
Conductivity (µS)	617		610	606					780	774
Detergent (ppm)	0		0	0					0	0
Ammonia Nitrogen (ppm)	0		0	0					0	0
Water Temp (°F)	25.8		26.1	26					25.9	25.6
Turbidity (NTU)	7.67		6.67	6.62					1.37	1.72
Chlorine (ppm)	0		0	0					0	0
Color	Clear		Clear	Clear					Clear	Clear
Odor	No		No	No					No	No
Sewage	No		No	No					No	No
Surface Scum	No		No	No					No	No
Trash	No		No	No					No	No

Oil Sheen	No		No	No					No	No

Cooks Branch:

Surface Water Monitoring

Date	Location	Water Temp (°C)	pH	DO (mg/L)	Conductivity (mS)	Turbidity (NTU)	Total Phosphate (mg/L)	Nitrate (mg/L)	Oil Sheen	Trash	Odor	Water Color	WQI
01/20/2014	CB-1	19.6	9.12	9.6	497	1.53	0.3	0	no	Yes	no	clear	84 - Good
07/14/2014	CB-1	37.5	10.13	8	489	2.08	0.1	0	no	Yes	no	clear	78 - Good
03/24/2015	CB-1	26.7	10.06	12.4	373	1.97	0.12	0	No	yes	no	clear	66- Medium
New Outfall Location													
07/27/2015	CB1A	29.6	8.64	13.4	626	1.74	0.18	0.616	No	No	No	Clear	74 - Good
01/27/2016	CB1A	12.9	8.07	10.2	715	1.1	0.14	1.056	No	No	No	Clear	94- Good
06/18/2016	CB1A	24.4	8.09	8.4	688	2.2	0.42	0.616	No	No	No	Clear	89 - Good
12/28/2016	CB1A	19	8.09	9.1	648	4.69	0.12	0.704	No	No	No	Clear	93 - Excellent
06/12/2017	CB1A	25.5	7.68	10.2	721	1.98	0.16	0.264	No	No	No	Clear	91 - Excellent

Dry Weather Screening

Outfalls:	OF1118	OF1112

	1st Visit	2nd Visit	1st Visit	2nd Visit
Date/Time:	1/29/2017 11:27am	1/30/2017 9:30am	1/30/2017 11:14am	01/31/2017 9:44am
Flow	Low	Low	Low	Low
pH	8.33	8.13	8.26	8.32
Conductivity (µS)	944	844	1355	1405
Detergent (ppm)	0	0	0	0
Ammonia Nitrogen (ppm)	0	0	0	0
Water Temp (°F)	13.5	12.8	15	13.6
Turbidity (NTU)	1.32	1.8	0.8	1.5
Chlorine (ppm)	0	0	0	0
Color	Clear	Clear	Clear	Clear
Odor	No	No	No	No
Sewage	No	No	No	No
Surface Scum	No	No	No	No
Trash	Yes	Yes	No	No
Oil Sheen	No	No	No	No

Outfalls:	OF1118		OF1112	
	1st Visit	**2nd Visit**	**1st Visit**	**2nd Visit**
Date/Time:	6/14/2017 9:32am	6/15/2017 2:32pm	6/15/2017 9:20am	6/15/2017 2:20pm

Flow	Low	Low	Low	Low
pH	8.15	8.08	7.84	8.26
Conductivity (µS)	864	733	550	1283
Detergent (ppm)	0	0	>0.2	0
Ammonia Nitrogen (ppm)	0	0	0	0
Water Temp (°F)	24.5	26.2	26.8	27.6
Turbidity (NTU)	10	16.4	186	2.21
Chlorine (ppm)	0	0	0	0
Color	Clear	Clear	cloudy	Clear
Odor	No	No	No	No
Sewage	No	No	No	No
Surface Scum	No	No	No	No
Trash	Yes	Yes	No	No
Oil Sheen	No	No	No	No

Valwood Improvement:

Surface Water Monitoring

01/20/2014	VI-1	19.8	10.66	26.4	567	2.74	0.1	0	no	yes	no	clear/green	65 - Medium
07/14/2014	VI-1	35.5	9.71	17.3	660	5.4	0.24	0	no	Yes	no	Clear/green	65 - Medium
03/24/2015	VI-1	23.4	9.04	19.4	825	17.8	0.68	0.352	No	Yes	No	Clear/green	69 - Medium
07/27/2015	VI-1	37.2	8.71	14.4	690	3.66	0.1	0	No	No	No	Clear	74 - Good
01/27/2016	VI-1	10.1	7.83	9.5	612	2.29	0.3	3.52	No	No	No	Clear	87 - Good

06/08/2016	VI-1	28.7	8.13	16.3	743	4.93	0.06	0	No	No	No	Clear	78 - Good
12/28/2016	VI-1	22.3	9.08	16.9	661	6.41	0.54	0	No	No	No	Clear	64 - Medium
06/12/2017	VI-1	30.8	9.4	15.1	420	8.71	0.5	0.88	No	Yes	No	Clear	61 - Medium

Dry Weather Screening:

Outfalls:	OF1096		OF4150		OF4152		OF1407		OF1456	
	1st Visit	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**
Date/Time:	1/30/2017 11:48am	1/31/2017 10:04am	1/30/2017 11:48am	1/31/2017 10:04am	1/30/2017 11:53am	1/31/2017 10:09am	1/30/2017 11:53am	1/31/2017 10:09am	1/30/17 11:51am	1/31/2017 10:08am
Flow	None	None	None	None	None	None	None	None	None	None
pH										
Conductivity (µS)										
Detergent (ppm)										
Ammonia Nitrogen (ppm)										
Water Temp (°F)										
Turbidity (NTU)										
Chlorine (ppm)										
Color										
Odor										
Sewage										
Surface Scum										
Trash										

Oil Sheen											

OF1457		OF1459		OF1458		OF4156		OF4157		OF4161	
1st Visit	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**
1/30/17 11:55am	1/31/2017 10:11am			1/30/17 11:58am	1/31/17 10:13am	1/30/17 12:08pm	1/31/17 10:40am	1/30/17 12:08pm	1/31/17 10:20am	1/30/17 12:21pm	1/31/17 10:22am
None	None			None	None	Low	Low	None	None	None	None
						9.93	9.43				
						374	373				
						0	0				
						0	0				
						15.7	14.3				
						2.06	2.12				
						0	0				
						Clear	Clear				
						No	No				
						No	No				
						No	No				
						No	No				
						No	No				

OF4162		OF4160		OF1399		OF1398		OF1400		OF4159	
1st Visit	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**
1/30/17 12:21pm	1/31/2017 10:21am	1/30/17 12:21pm	1/31/17 10:21am	1/30/17 12:26pm	1/31/17 10:27am	1/30/17 12:26pm	1/31/17 10:27am	1/30/17 12:27pm	1/31/17 10:27am	1/30/17 10:29pm	1/31/17 10:29am
None	None	None	None	None	None	None	None	None	None	None	None

OF4158		OF1401		OF2272		OF2289		OF1402		OF2361	
1st Visit	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**
1/30/17 12:29pm	1/31/17 10:29am	1/30/17 12:34pm	1/31/17 10:32am	1/30/17 12:35pm	1/31/17 10:33am	1/30/17 12:35pm	1/31/17 10:33am	1/30/17 12:36pm	1/31/17 10:33am	1/30/17 12:36pm	1/31/17 10:34am
None	None	None	None	None	None	None	None	None	None	None	None

OF2288		OF4171		OF1414		OF4172		OF1413		OF1411	
1st Visit	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**
1/30/17 12:37pm	1/31/17 10:34am	1/30/17 2:55pm	1/31/17 11:56am	1/30/17 2:55pm	1/31/17 11:56am	1/30/17 2:55pm	1/31/17 11:56am	1/30/17 2:53pm	1/31/17 11:55am	1/30/17 3:13pm	1/31/17 11:50am
None	None	too low to sample	too low to sample	Low	Low	None	None	None	None	None	None
				8.12	8.17						
				402	410						
				0	0						
				0	0						
				12.4	13.8						
				1.93	7.06						
				0	0						
				Clear	Clear						
				No	No						
				No	No						
				No	No						
				Yes	Yes						
				No	No						

OF4173	OF1412	OF1451	OF1391	OF4176	OF4177

1st Visit	2nd Visit	1st Visit	2nd Visit	1st Visit	2nd Visit	1st Visit	2nd Visit	1st Visit	2nd Visit	1st Visit	2nd Visit
1/30/17 3:18pm	1/31/17 11:51am	1/30/17 3:18pm	1/31/17 11:51am	1/30/17 3:17pm	1/31/17 11:50am	1/30/2017 3:32pm	1/31/17 11:48am	1/30/17 3:33pm	1/31/17 11:48am	1/30/17 3:33pm	1-31-17 11:48am
None	None	None	None	None	None	None	None	None	None	None	None

OF2321		OF1453		OF1392		OF4174		OF4175		OF1454	
1st Visit	2nd Visit	1st Visit	2nd Visit	1st Visit	2nd Visit	1st Visit	2nd Visit	1st Visit	2nd Visit	1st Visit	2nd Visit

1/30/17 3:39pm	1/31/17 11:23am	1/30/17 3:36pm	1/31/17 11:21am	1/30/17 3:39pm	1/31/17 11:20am	1/30/17 3:36pm	1/31/17 11:20am	1/30/17 3:38pm	1/31/17 11:15am	1/30/17 3:38pm	1/31/17 11:19am
Low	Low	None	None	None	None	None	None	None	None	None	None
7.65	7.69										
1923	701										
0	0										
0	0										
15.1	15.2										
6.84	227										
0	0										
Clear	BCS104										
No	No										
No	No										
No	No										
No	No										
No	No										

OF2286		OF2295		OF1455	
1st Visit	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**
1/30/17 3:57pm	**1/21/17 10:14am**	**1/30/17 3:58pm**	**1/31/17 10:14am**	**1/30/2017 3:37pm**	**1/31/17 11:19am**

None	None	None	None	None	None

Outfalls:	OF1096		OF4150		OF4152		OF1407		OF1456	
	1st Visit	2nd Visit	1st Visit	2nd Visit	1st Visit	2nd Visit	1st Visit	2nd Visit	1st Visit	2nd Visit
Date/Time:	7/31/2017 9:09am	7/31/2017 1:48pm	7/31/2017 9:09am	7/31/2017 1:48pm	7/31/2017 9:15am	7/31/2017 1:52pm	7/31/2017 9:14am	7/31/2017 1:52pm	7/31/2017 9:12am	7/31/2017 1:51pm
Flow	None	None	None	None	None	None	None	None	None	None
pH										
Conductivity (µS)										
Detergent (ppm)										
Ammonia Nitrogen (ppm)										
Water Temp (°F)										

Turbidity (NTU)										
Chlorine (ppm)										
Color										
Odor										
Sewage										
Surface Scum										
Trash										
Oil Sheen										

OF1457		OF1459		OF1458		OF4156		OF4157		OF4161	
1st Visit	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**
7/31/201 7 9:18am	7/31/2017 1:53pm	7/31/2017 9:14am	7/31/201 7 1:52pm	7/31/201 7 9:19am	7/31/201 7 1:53pm	7/31/201 7 9:24am	7/31/201 7 1:56pm	7/31/201 7 9:22am	7/31/201 7 1:55pm	7/31/201 7 9:35am	7/31/201 7 2:07pm
None	None	None	None	None	None	Low	Low	None	None	None	None
						9.43	9.82				
						349	538				
						0	0				
						0	0				
						26.8	34.6				
						5.04	11.6				
						0	0				

						Clear	Clear				
						No	No				
						No	No				
						No	No				
						No	No				
						No	No				

OF4162		OF4160		OF1399		OF1398		OF1400		OF4159	
1st Visit	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**
7/31/2017 9:35am	7/31/2017 2:07pm	7/31/2017 9:35am	7/31/2017 2:07pm	7/31/2017 9:40am	7/31/2017 2:10pm	7/31/17 9:38am	7/31/2017 2:09pm	7/31/2017 9:40am	7/31/2017 2:11pm	7/31/2017 9:41am	7/31/2017 2:11pm
None	None	None	None	None	None	None	None	None	None	None	None

OF4158		OF1401		OF2272		OF2289		OF1402		OF2361	
1st Visit	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**
7/31/201 7 9:41am	7/31/201 7 2:11pm	7/31/201 7 9:43am	7/31/201 7 2:12pm	7/31/201 7 9:44am	7/31/201 7 2:13pm	7/31/201 7 9:45am	7/31/201 7 2:14pm	7/31/2017 9:45am	7/31/201 7 2:14pm	7/31/201 7 9:46am	7/31/201 7 2:14pm
None	None	None	None	None	None	None	None	None	None	None	None

OF2288		OF4171		OF1414		OF4172		OF1413		OF1411	
1st Visit	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**
7/31/2017 9:47am	7/31/2017 2:15pm	7/31/2017 9:53am	7/31/2017 2:19pm	7/31/2017 9:53am	7/31/2017 2:19pm	7/31/2017 9:50am	7/31/2017 2:17pm	7/31/17 10:08am	7/31/2017 2:20pm	7/31/2017 10:10am	7/31/2017 2:21pm
None	None	Low	Low	Low	Low	None	None	None	None	None	None
		7.84	7.79	7.84	7.79						
		634	639	634	639						
		0	0.1	0	0.1						
		0	0	0	0						
		25.8	26.2	25.8	26.2						
		5.38	2.22	5.38	2.22						
		0	0	0	0						
		Clear	Clear	Clear	Clear						
		No	No	No	No						
		No	No	No	No						
		No	No	No	No						
		Yes	Yes	Yes	Yes						
		No	No	No	No						

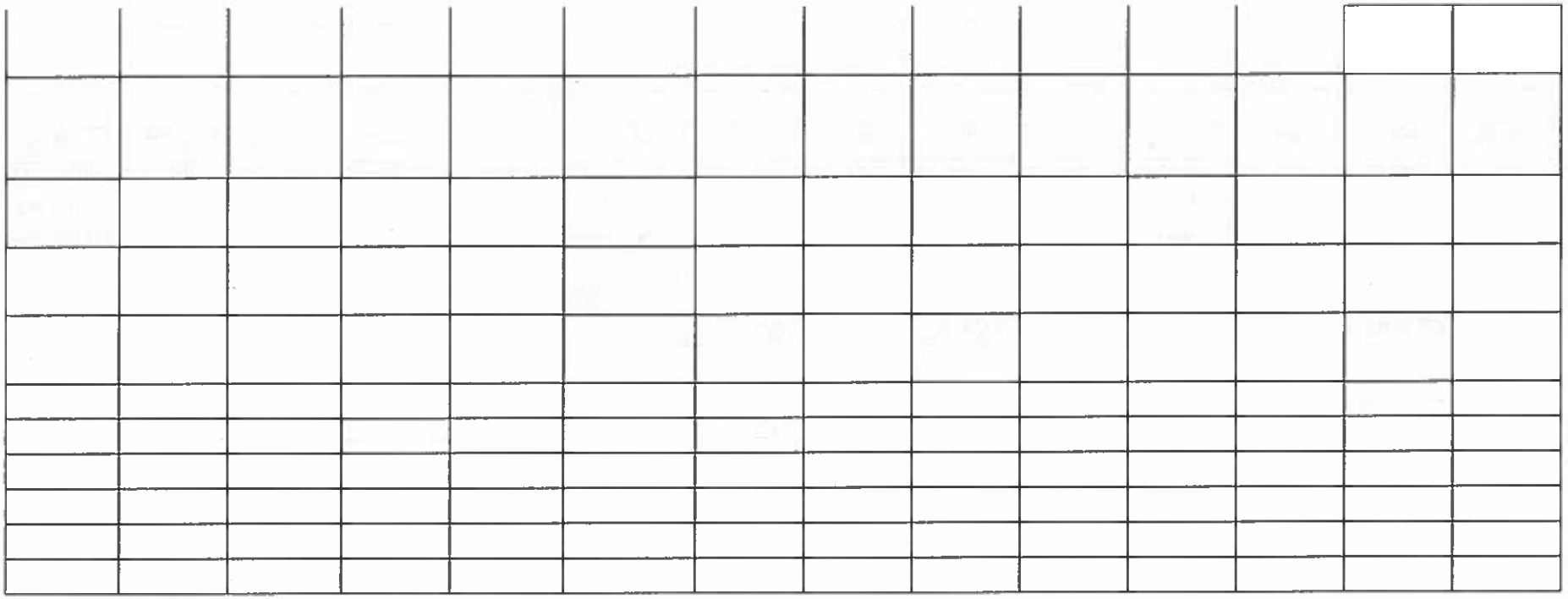
OF4173		OF1412		OF1451		OF1391		OF4176		OF4177	
1st Visit	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**
7/31/2017 10:30am	7/31/17 2:30ppm	7/31/2017 10:30am	7/31/2017 2:30pm	7/31/17 10:29am	7/31/17 2:30pm	7/31/17 10:40am	7/31/2017 3:14pm	7/31/17 10:40am	7/31/2017 3:14pm	7/31/17 10:40am	7/31/2017 3:14pm

None	None	None	None	None	None	None	None	None	None	None	None

OF2321		OF1453		OF1392		OF4174		OF4175		OF1454	
1st Visit	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**
7/31/2017 10:44am	7/31/17 3:18pm	7/31/17 10:45am	7/31/17 3:18pm	7/31/17 10:46am	7/31/20173:19pm	7/31/17 10:46am	7/31/2017 3:19pm	7/31/17 10:48am	7/31/2017 3:21pm	7/31/17 10:48am	7/31/2017 3:21pm
Low	Low	None	None	None	None	None	None	None	None	None	None
7.28	7.63										

1633	1634										
0	0										
0	0										
27.2	27.9										
4.09	5.72										
0	0										
Clear	Clear										
No	No										
No	No										
No	No										
No	No										
No	No										

OF2286		OF2295		OF1455		OFXXX next to 2288		OFXXX between 1358 &* 1399		OFXXX left of 1458		OFXXX next to 1456	
1st Visit	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**	**1st Visit**	**2nd Visit**
7/31/17 11:07am	7/31/17 3:40pm	7/31/17 11:09am	7/31/17 3:42pm	7/31/17 10:46am	7/31/2017 3:19pm	7/31/17 9:12am	7/31/17 1:51pm	7/31/17 9:40am	7/31/17 2:10pm	7/31/17 9:20am	7/31/17 1:54pm	7/31/17 9:12am	7/31/17 1:51pm
None	None	None	None	None	None	None	None	None	None	None	None	None	None

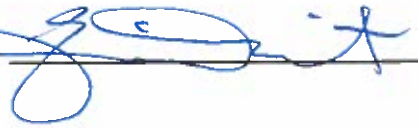


J. Certification

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

I further certify that I am authorized under **30 Texas Administrative Code 305.44** to sign and submit this document, and can provide documentation in proof of such authorization upon request.

Name (printed): Erin Rinehart Title: City Manager, City of Carrollton

Signature:  Date: 12/20/17