

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

A. General Information

1. Authorization Number

TXR040326

Reporting Year:

4-5 (4th report)

Annual Reporting Option Selected:

Fiscal Year Last day of fiscal year: September 30th

Reporting Period Beginning Date:

October 1, 2017

Reporting Period End Date:

September 30, 2018

MS4 Operator Level:

4

Name of MS4:

City of Carrollton

Contact Name:

Cory Heiple

Mailing Address:

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Email Address:

cory.heiple@cityofcarrollton.com

A copy of this annual report was submitted to the TCEQ Regional Office?

Yes. USPS Certified Mail No.

Region the annual report was submitted. TCEQ Region 4

Telephone Number: 972-466-3395

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	To educate residents, businesses, visitors, and commercial and industrial facilities about impacts of storm water on water	Yes – Each presentation or educational booth is tailored to cater to the target audience thus delivering the topic in a relevant and

Educational Events	quality, hazards associated with illegal discharges and improper disposal of waste, and steps they can take to reduce pollutants in storm water.	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 effective 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 an effective tool for residents and businesses that want to make changes to their landscape, as this is the 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 stormwater pollution prevention information employees can use in their daily lives, while reiterating their role as city employees in preventing stormwater 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, Recycling and Chemical Collection	To give residents and businesses an opportunity to participate in removing trash from the city creeks and parks, to recycle cooking grease, and properly dispose of unused medications.	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. to be involved 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	To complete and verify a map of all outfalls in the city.	Yes – This map of the outfalls and inlets facilitates an efficient

System Map		and systematic method to trace discharges to the stormwater system, as well as mitigating releases to stormwater 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 stormwater 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 stormwater 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 Illegal Dumping and 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 stormwater 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 stormwater 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 the remediation, elimination, and targeted education of 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 cost to the resident.	Yes – The program allows residents to dispose of their household hazardous waste properly, at no additional cost, and at their curbside, thereby encouraging for the 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 SWPPP 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 stormwater 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 their optimum by setting inspection and maintenance schedules.
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 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 stormwater 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 SSO's.
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 on stormwater.	Yes – These assessments aid in characterizing priority facilities in terms of monitoring and applying additional or site-specific BMPs to prevent pollution of the stormwater system.
5.10	Structural Control Maintenance and Waste	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 getting into the surface waters.

Disposal	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.
5.11 New Construction and Land Disturbance	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 hired contractors.
5.12 Contractor Oversight Procedures	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 discharge of chlorinated water into the surface waters and reduces its impact on fish and wildlife.
5.13 Fire Fighting Training Activities	To train all employees responsible for municipal operations subject to the pollution prevention and good housekeeping program.	Yes – This training provides both general stormwater pollution prevention practices for municipal operations and also discusses operation-specific consequences and BMPs to minimize/prevent any adverse impacts.
5.14 Employee Storm Water Pollution Prevention Training Program	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 stormwater polluters in the city, provides an assessment of their operations vis-à-vis impacts on stormwater quality and recommendations to bring them into compliance with TCEQ’s MSGP requirements and the city’s stormwater ordinance.
6.1 Inspection of Industrial 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 stormwater polluters in the city, provides an assessment of their services vis-à-vis impacts on stormwater quality and recommendations to bring them into compliance with the city’s stormwater ordinance.
6.2 Inventory/ Inspection of Commercial Facilities		

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 to 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, pool water discharged 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, recycling used cooking grease, and proper disposal of unused medication.	<p>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.</p> <p>In this report period we had 17 volunteer groups that picked up 167 bags of trash for creek clean-ups with 2 Adopt-a-Spot locations; in the previous year there were 9 volunteer groups that collected 46 bags of trash;</p> <p>Medication Disposal Day – 2 events – October 28, 2017 collected 2,602 pounds and April 28, 2018 collected 2,675 and the previous year we had 1 event and collected 3,473 pounds;</p> <p>Cooking Oil Collection – November 27-28, 2017 - 437.25 gallons collected this year and 434.5 gallons collected last year.</p>
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.	<p>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 371 spills and discharges during this reporting period compared to the previous year when we responded to 161 spills and discharges.</p>
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.	<p>Yes – This allowed citizens to report discharges 24 hours a day. Citizens are getting active in availing of this reporting resulting in the city being able to conduct enforcement on violators and to remediate the impact, and reduce a possible bigger impact.</p>
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.	<p>Yes – Ensured that there were no illicit connections to the storm drain system during the building process.</p>
2.6 Illegal Dumping and Litter Control	To eliminate illegal dumping and littering through abatement and enforcement activities.	<p>Yes – The city responded to 26 reports of illegal dumping and the Public Works Streets crews removed 47,735 pieces of trash from roads and ditches this year. The previous year we responded to 22 illegal dumping cases and collected 12,668 pieces of trash and debris.</p>
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.	<p>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 100 trucks from 37 companies and issued 2 NOVs</p>

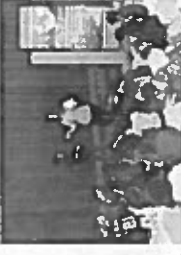
			and 12 Citations for either not having a permit or not filling out/submitting trip tickets properly. In the previous reporting year the city permitted 104 trucks from 35 companies, and 2 NOV's and 2 citations were issued.
2.8	Maintenance Program for Sanitary Sewers	To prevent and reduce sanitary sewer overflows through proactive maintenance of the sanitary sewer system.	Yes – The regular cleaning of pinpointed areas have reduced and prevented sanitary sewer overflows through preventive maintenance. In this report period we had 3 SSOs.
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. 17 cases were investigated during this report period. During the previous reporting year 25 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. 62 outfalls were monitored 4 times during the reporting period for a total of 248 inspections.
2.11	Household Hazardous Waste Program	To provide residents with a means of disposing of their household hazardous waste at no additional cost.	Yes – This allowed residents to dispose of their household hazardous waste properly and at no additional cost. Waste Management collected 13,225 pounds from Carrollton residents. In the previous reporting period, Carrollton residents disposed of 180,438 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	Yes – The city directly removed various pollutants from roadways and ditches. Major arterials and selected city parking lots were swept monthly. 2,800.78 curb miles were swept during

	practices during street repair activities.	this reporting period where 3,020.68 curb miles were swept during the previous reporting period. Crews removed 47,735 pieces of trash from the roadways and ditches during this reporting period, in the previous year they removed 12,668 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, and proper disposal of its various waste streams.
5.4 Municipal Buildings and Parking Lots Maintenance	To develop and implement pollution prevention plan 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 52% of the storm inlets which was more than the previous reporting period when they inspected 49.06%.
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 the environment. The city recycled 4,268 pounds of electronic waste during this reporting year. In the previous year, the city recycled 4,138 pounds of electronic waste.
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 SSO’s 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 stormwater 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 2018 and will be completed in October 2018.
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 with the industries in the city. During this reporting year the city inspected 134 industries while in the previous reporting year the city inspected 152 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 with the commercial businesses in the city (some commercial facilities, restaurants, and grit and grease traps). The city inspected 58 commercial facilities during this reporting period while they inspected 50 during the previous reporting period. The city also performed 1518 inspections at food establishments this year and 1,551 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	<ol style="list-style-type: none"> 1. Distribute copies of brochures to all display racks at city buildings and at all public events and presentations. (200 per year). 2. News briefs in local paper or mailers/utility bill inserts twice a year. 	<p>Exceeded Goal - distributed 1,349 brochures and educational materials. We mailed letters to 8 residents on proper disposal of trash and debris and 41 residents on disposal of pet waste. We also created and distributed pamphlets on lawn maintenance for 45 residents.</p> <p>Exceeded Goal - Articles appeared in newsletters, local newspaper, city website, Facebook, Twitter, and Netbill 49 times throughout the report period.</p>

		3. Continue to update and distribute the storm water letters to all apartment managers currently in the database.	Met Goal – Mailed letters to all (86) apartment complexes/managers.
1.2	Public Presentations	1. Four presentations or outreach activities per year.	Exceeded Goal – conducted 20 presentations or outreach activities. 
1.3	Promotional Items	1. Distribute 200 promotional items per year.	Exceeded Goal – Distributed 1,345 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; “Put Down Some Roots” ran in the February 2018 On the Horizon newsletter. According to NCTCOG, Carrollton residents had 1,141 sessions, with 71.69% 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. In this reporting year, two newsletters were created for industries: Car Wash in November 2017 and MSGP No-Exposure Requirements in April 2018.
		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. In this reporting year, two newsletters were distributed to industries: Car Wash in November 2017 and MSGP No-Exposure Requirements in April 2018.
		3. Hold annual industry meeting.	Met Goal - A meeting was held on September 27, 2018. Presentations included Industrial Pretreatment Highlights, Oil and Grease Woes, Pretreatment and MSGP Basics, and Stormwater Food for Thought.

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 418 markers.
1.8 Storm Water and Pollution Prevention Videos and Public Service Announcements	<ol style="list-style-type: none"> 1. Continue broadcast of Storm Water Management video or PSAs on local cable public access channel and on the storm water webpage. 2. Evaluate acquisition of other videos and incorporate to video library if appropriate. 3. Maintain library of videos. Include information on the web site. 	<p>Met Goal – Stormwater 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.</p> <p>Met Goal – A new training video, Rain Check from ExCal Visual, was purchased for employee pollution prevention training. Two training videos were created by NCTCOG and area cities on water main breaks and SSOs.</p> <p>Met Goal – A library of videos is available and included on the website.</p>
1.9 TCEQ FOG Initiative	<ol style="list-style-type: none"> 1. Distribute one to every new and existing restaurant currently in database listed as having a grease trap. 2. Distribute one to every manager of an apartment complex currently in the database at least once every year. 3. Routine inspections for posters displayed and redistribute posters as needed for every restaurant currently in database. 4. Distribute grease control information to tenants in multifamily complexes yearly. 5. Distribute grease control information to industries yearly. 6. Grease control information provided in water bills and/or in the city newsletter three times a year. 7. Information posted on the city website. 	<p>Met Goal – TCEQ Grease posters were given to all new food establishments applying for a food permit via a folder with other pertinent information. They are also redistributed during routine inspections as needed.</p> <p>Met Goal – Distributed educational letters to all apartment complex managers.</p> <p>Met Goal – This was checked during each routine inspection for applicable establishments and documented on the inspection sheet. New posters were distributed as needed.</p> <p>Met Goal – Distributed 15,975 grease control flyers to multifamily complexes on June 20, 2018.</p> <p>Met goal – No industries were identified as needing flyers during this reporting period however a presentation on FOG was given during the industry meeting on September 27, 2018.</p> <p>Exceeded Goal –Articles on grease control appeared 5 times in the city newsletter, city website, Facebook, Twitter, and Netbill. Cable screens with grease control/recycling ran in November 2017.</p> <p>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.</p>

	8. Three presentations per year.	Exceeded Goal – 12 presentations, educational events, or grease collection events were conducted.
1.10 Household Hazardous Waste Site	<ol style="list-style-type: none"> 1. Develop one mailer or water bill insert per year. 2. Distribute mailer or water bill insert yearly. 3. Post information on the web page for every day of the year. 	<p>Met Goal – One article/newsletter was developed.</p> <p>Met Goal – The article appeared in the November 2017 On the Horizon newsletter. Cable screens on Household Hazardous Waste also ran every day of the year.</p> <p>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.</p>
1.11 Pet Waste Education	<ol style="list-style-type: none"> 1. Distribute to all residents adopting or reclaiming a pet, at presentations, and public events. 2. Maintain signs in parks and greenbelts as needed. 	<p>Met Goal – The following educational items were distributed: bookmarks – 261; Pet waste containers with bags – 211; Animal Ownership brochures – 658.</p> <p>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).</p> 
1.12 Environmental Services website	<ol style="list-style-type: none"> 1. Continue updating the information on the web page. 	<p>Met Goal – the website is updated as needed.</p> <p>http://www.cityofcarrollton.com/departments/departments-d-environmental-quality-services.</p>
1.13 Electronic Newsletter for City Employees	<ol style="list-style-type: none"> 1. Distribution of two electronic newsletters per year. 	<p>Met Goal – Two newsletters were developed and distributed. The November 2017 newsletter included information on Seasonal Tips to Protect Our Waterways and Natural Discharges in Nature. The April 2018 newsletter included information on the difference between the sanitary and storm sewer systems and Rain, Watersheds, and Pollution.</p>
1.14 Environmental Educational School	<ol style="list-style-type: none"> 1. Distribute bags at events and or presentations. 	<p>Met Goal – The information packet on the Water/Environmental education programs was emailed to</p>

Kit		CFBISD and LISD on August 14, 2017.
1.15 Comply with State and Local Public Notice Requirements	<ol style="list-style-type: none"> 2. Review and update bags as needed. 1. Publish notice of TCEQ determination on NOI and SWMP. 2. Publish notice of Public Meeting if determined to be necessary by TCEQ. 3. Implementation Complete. 	<p>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 stormwater and water conservation.</p> <p>Completed – January 9, 2015</p> <p>Completed – Not needed as determined by TCEQ.</p> <p>Completed – February 27, 2015</p>
1.16 Public Meetings	<ol style="list-style-type: none"> 1. Public meeting to introduce SWMP. 2. A public meeting to update/evaluate SWMP for the next permit term. 3. Implementation complete. 	<p>Completed May 14, 2015</p> <p>Due December 12, 2018</p> <p>Due December 12, 2018</p>
1.17 Discharge Reporting Line	<ol style="list-style-type: none"> 1. Maintain illicit discharge reporting line. 	 <p>Met Goal – The reporting line is still active.</p>
1.18 Volunteer Creek and Greenbelt Cleanup, Recycling and Chemical Collection	<ol style="list-style-type: none"> 1. One annual creek clean up or recycling event with volunteers. 	<p>Exceeded Goal – Creek clean-ups - 17 volunteers/volunteer groups picked up trash on 69 different days and collected 167 bags of trash; the new Adopt-A-Spot had 2 locations adopted; Medication Disposal Day – 2 events with one on October 28, 2017 collected 2,602 pounds and April 28, 2018 collected 2,675 pounds; Cooking Oil Collection – 1 event on November 27-28, 2017 collected 437.25 gallons.</p> <p>Met Goal – Meeting was held on May 14, 2018</p>
1.19 Citizens Advisory Committee	<ol style="list-style-type: none"> 1. Annual meetings with Citizen Advisory Committee. 2. Design and disseminate an electronic survey to Carrollton residents regarding storm water issues. 	<p>Met Goal – the quiz was finalized and placed on the website at: https://www.cityofcarrollton.com/departments/departments-a-environmental-quality/stormwater/storm-water-quiz/-fsiteid-1</p>
2.1 Storm Sewer System Map	<ol style="list-style-type: none"> 1. Verification of new or newly discovered outfalls. 	<p>Met Goal – no new outfalls were verified – total of 1,234 outfalls.</p>
2.2 Storm Water Pollution Control Ordinance and	<ol style="list-style-type: none"> 2. Map continuously updated as new data is obtained. 1 Review and revise the Storm Water Pollution Prevention Ordinance. 	<p>Met Goal – IT updates the maps as new data is obtained.</p> <p>Completed December 15, 2015</p>

Enforcement Response Guide	<p>2. Adoption of ordinance by City Council.</p> <p>3. Establish the Enforcement Response Guide.</p> <p>4. Commence implementation of ERG.</p> <p>5. Implementation Complete.</p>	<p>Completed December 15, 2015</p> <p>Completed by September 2017</p> <p>Completed by September 2017</p> <p>Completed by September 2017</p> <p>Met Goal – responded to 371 spills or discharges.</p> <p>Completed December 12, 2015</p> <p>Met Goal – See BMP 1.17</p>
2.3 Spill Response	<p>1. Spill response plan in place.</p> <p>2. Review and revise the spill response manual and database.</p>	
2.4 Illicit Discharge Reporting Line	<p>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.</p>	
2.5 Construction Plans Review and Site Inspection for Illicit Connections	<p>1. 100% new construction projects will undergo site plan review and will be inspected to ensure no illicit connections.</p> <p>2. Include plan review and site inspections for illicit connections in the appropriate SOP for construction.</p>	<p>Met Goal – 100% new construction projects underwent site plan review and were inspected to ensure no illicit connections.</p> <p>Met Goal – Completed by Building Inspection in July 2015 and Engineering in December 2015.</p>
2.6 Illegal Dumping and Litter Control	<p>1. 90% active illegal dumping incidents respond within one hour.</p> <p>2. 100% abatement of illegal dumping incidents.</p> <p>3. 100% incidents with identifiable responsible party to be followed by enforcement action.</p> <p>4. Inspect 40% storm inlets per year.</p> <p>5. 9000 pieces of trash collected from the roadways per year.</p>	<p>Met Goal – All active illegal dumping cases were responded to within an hour.</p> <p>Met Goal – All 26 illegal dumping cases were either abated or in the process of being abated.</p> <p>Met Goal – All illegal dumping cases where there was an identifiable party were followed up by an enforcement action.</p> <p>Exceeded Goal – 52% of the inlets were inspected.</p> <p>Exceeded Goal – Collected 47,735 pieces of trash from the roadways and ditches.</p> <p>Met Goal – 37 companies with 100 permitted trucks.</p>
2.7 Liquid Waste Program	<p>1. 100% permitted liquid waste haulers inspected once a year.</p> <p>2. 100% permitted liquid waste haulers to submit used tickets monthly.</p> <p>3. 100% identified facilities to use a permitted liquid waste hauler.</p> <p>4. Inventory of septic tanks in the city.</p> <p>5. Develop Procedures to prevent and correct any leaking on-site sewage disposal system.</p>	<p>Met Goal – Trip tickets are reviewed during each routine inspection.</p> <p>Completed December 2016</p> <p>Met Goal – SOP was created November 8, 2017</p>
2.8 Maintenance Program for Sanitary Sewers	<p>1. Annual maintenance and inspection of sanitary sewer system.</p>	<p>Met Goal – Maintenance and inspections were performed.</p>

	<p>2. Clean miles of sewer lines based on the 5 year cycle. (Year 4 of the cycle was 138 miles to be cleaned)</p> <p>3. Smoke and dye testing of 100,000 feet per year.</p> <p>4. Conduct closed-circuit television inspections of 100,000 feet per year.</p> <p>5. Inspect 2100 manholes per year.</p> <p>6. Repair and/or bring to grade 300 manholes per year.</p> <p>7. Lift stations inspected monthly.</p> <p>8. Tag high-risk sections of sanitary sewer system for inspection/ maintenance every 30 days (i.e. Maintain 30-day list). Review annually.</p> <p>1. Investigate all (100%) complaints received regarding improper disposal of pet waste.</p>	<p>Exceeded Goal – 165.54 miles were cleaned.</p> <p>Exceeded Goal – 101,712 feet were tested.</p> <p>Exceeded Goal – 110,974 feet were inspected.</p> <p>Exceeded Goal – 2,109 manholes were inspected.</p> <p>Exceeded Goal – 461 were repaired.</p> <p>Exceeded Goal – 988 inspections at the 19 sewer lift stations. Weekly inspections were conducted.</p> <p>Met Goal – The 30-day list was maintained and had 9 sites listed at the end of this report period.</p> <p>Met Goal – Received 17 complaints and all were investigated; NCTCOG had 6 residents that pledged to pick up after their pets.</p>
2.9 Pet Waste Management	<p>1. Employees or consultants attend the NCTCOG regional dry weather screening protocol training as needed.</p> <p>2. Review and revise if necessary the priority locations for screening.</p> <p>3. Review and revise the Dry Weather Field Screening Manual.</p>	<p>Met Goal – Two employees attended the Dry Weather Screening Workshop on June 27, 2018. Carrollton also assisted in developing the course with NCTCOG.</p> <p>Completed December 12, 2015 – See Appendix II</p> <p>Completed December 12, 2015</p>
2.10 Dry Weather Discharge Screening	<p>4. Continue Dry Weather Field Screening at the priority locations.</p> <p>5. Implementation Complete.</p>	<p>Met Goal – Performed dry weather screening at 62 outfalls in February/March 2018 and July 2018; monitoring data is in Appendix II.</p> <p>Completed December 12, 2015</p>
2.11 Household Hazardous Waste Program	<p>1. Provide a household hazardous waste disposal program for Carrollton residents.</p>	<p>Met Goal – Service through Waste Management at no additional cost to the resident. www.cityofcarrollton.com/departments/departments-q-z/trash-recycling/household-hazardous-waste. During this report period Carrollton residents disposed of 13,225 pounds of household hazardous waste through Waste Management's service.</p> <p>Met Goal – Response procedures continued to be implemented. Completed May 31, 2016</p>
2.12 Water Main Breaks	<p>1. Response procedures in place.</p>	
2.13 Employee Training	<p>1. Develop Training Program for all field employees</p>	

for Illicit Discharges	2. Train all field employees.	On Track – Training of field employees continued during this reporting cycle (Police Officers, Utility Customer Services, Engineering) and was combined with the 5.14 BMP Pollution Prevention Training for applicable departments (Public Works). Completed June 9, 2015.
3.1 Ordinance for Construction Site Erosion and Sediment Controls	1. Review and revise the Stormwater and Flood Protection ordinance. 2. Review and revise the SWPPO. 3. Adoption of ordinance by City Council, publication. 4. Implement ordinance changes. 5. Establish the Enforcement Response Guide (ERG). 6. Commence the implementation of ERG.	Completed before December 1, 2015. Completed December 1, 2015. Completed December 12, 2015. Completed July 25, 2016. Completed July 25, 2016.
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. 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 – Both departments require a SWPPP and NOI/CSN to be submitted before a permit is issued.
3.3 Construction Site Inspection	1. Conduct inspections of 100% NPDES/TPDES-permitted construction sites. 2. Develop written procedures for site inspection and enforcement requirements. 3. Develop inspection sheet for use during construction site inspections.	Met Goal – The SWPPP and NOI/CSN were reviewed for content. 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. Completed by December 12, 2015. 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 1,297 complaints.
3.5 Storm Water Information Package for Construction Site Operators	1. Update information package as needed. 2. Implement distribution plan through Engineering and Development Services.	Met Goal – One sheet was updated in March 2018 due to the renewal of the Construction General Permit. 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	Met Goal – Development Services or Environmental Services required a copy of the SWPPP and NOI/CSN where applicable.

	acres of land, including the larger common plan of development.		
	2. Obtain and review NOIs and SWPPP 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 – Engineering was trained in-house on construction site inspections December 21, 2017. Two Environmental Quality staff attended the NCTCOG Stormwater Pollution Prevention Practices During Construction. Four Environmental Quality staff attended the City of Dallas' TPDES Construction Permit Requirements workshop and TPDES Industrial Permit Requirements Workshop.
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. 2. Yearly review of the General Design Standards. 3. Establish the Enforcement Response Guide. 4. Commence implementation of the ERG.	Completed June 9, 2015. Met Goal – The yearly review was conducted and the changes were approved by council on January 16, 2018. Completed July 25, 2016.
4.2	Long-Term Operation and Maintenance Plan for Structural BMPs	1. Identify procedures and methods to ensure long-term maintenance of structural BMPs. 2. Implement procedures and methods to ensure long-term maintenance of structural BMPs. 3. List of all Structural BMPs to be inspected. 4. Receipt of Maintenance Plan for structural controls installed at a site. 5. Develop inspection form. 6. Begin inspections of structural controls.	Completed July 25, 2016. 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. Met Goal - The city continued to implement procedures and methods to ensure the long-term maintenance of city structural BMPs. Met Goal – A list of BMPs to be inspected has been created but will be updated as needed. Met Goal – A maintenance plan is noted on the Plat about the maintenance responsibilities. Completed – by September 2017. Met Goal – Four Inspections were completed in this reporting

			year.
4.3	Site Plan Review	1. Site plan review of 100% new development/redevelopment projects. 2. SOP for Construction Site Plan review.	Met Goal – Site plan review was performed on 100% of new and redeveloped projects. 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, <i>Construction Site Inspection</i> .	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. 2. Buffer zones and no mow zones. 3. Continue to implement native species landscaping and mowing restrictions where applicable. 4. Develop schedules for chemical application on public spaces. 5. Develop a list of pollutants of concern from mowing, chemical application, and planting vegetation. 6. Continue to implement the Integrated Pest Management Plan. 7. Proper disposal method for unused pesticides, herbicides, and fertilizers. 8. Maintain Licensed Pesticide Applicators and Licensed Irrigators.	Met Goal – Mowing crews picked up trash at least 200 days per year; In addition to the normal trash pick up the crews completed four larger clean-ups in 4 different locations and collected 71 bags of trash; Used mulching mowers; leaf blowers were used to blow clippings back onto the grass. The net at Josey Ranch collected 190 pounds of paper and plastic items. Met Goal – The city currently has 16 buffer and no mow zones to help with erosion and pollutant removal. Met Goal – Parks purchased a wildflower mix on November 2, 2017. Mowing height restrictions continued at 2.5 inches. Completed in October 2014. Completed March 2017.
5.2	Road and Bridge	1. Major arterials swept once a month, including the selected	Met Goal – 2,800.78 curb miles were swept in this reporting

Maintenance	municipal parking lots.	year and included major arterials and selected municipal parking lots. Completed – November 2, 2016. The contractor submitted a procedure for disposing of street sweeping waste material. Exceeded Goal – 47,735 pieces of trash were collected. Completed May 24, 2016. Completed March 1, 2017
5.3 Fleet Maintenance	<ol style="list-style-type: none"> 1. Weekly inspection/cleaning of maintenance and fueling facilities. Continue to implement spill response and pollution prevention plans (SPCC) at each fueling facility. 2. Develop an SOP for each of the three maintenance facilities. 3. All vehicles and equipment washed in a bays or commercial vehicle wash. 4. Develop SOP for vehicle and equipment washing. 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. Continue plan to address leaks from vehicles during normal use by a city employee. 6. Parts and materials stored under cover. Continue recycling program for materials. 7. Continue to implement plan to address leaks from vehicles during daily use by an employee. 8. Maintain SWPPP/Annual Inspection of the Central Service Center maintenance yard. 9. Quarterly inspections of the ICGC. 	<p>Met Goal – Inspections at maintenance and fueling facilities continued.</p> <p>Met Goal – an SOP for the three maintenance facilities at ICGC, CSC and SLSC were developed.</p> <p>Met Goal – City vehicles and equipment were washed at the wash bays or a contracted commercial facility.</p> <p>Completed by December 12, 2014 and was posted at the Central Service Center wash bay.</p> <p>Met Goal – Traps were serviced as required, wash bays are under cover, spill response and pollution prevention plans were continued, spill kits and signs were maintained, the plan to address leaks from vehicles during normal use by a city employee continued.</p> <p>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.</p> <p>Met Goal – Forms continued to be signed by all employees during New Employee Orientation (NEO).</p> <p>Met Goal – An inspection was completed on May 23, 2018 for the Public Works yard and for Fleet maintenance.</p> <p>Met Goal – Inspections were performed quarterly.</p>
5.4 Municipal Buildings	1. Continue to develop and implement a spill response and	Met Goal – SPCC and the pollution prevention plan continued

<p>and Parking Lots Maintenance</p>	<p>pollution prevention plan for building and parking lot maintenance (SPCC). Continue research in waste reduction/recycling options.</p> <p>2. Continue inspections of Municipal Buildings and parking lots, including the Public Works yard.</p> <p>3. Evaluate spill response and pollution prevention plan, adjust plan as necessary.</p> <p>4. Develop a list of pollutants of concern from municipal buildings and parking lot maintenance.</p>	<p>to be implemented. Waste reduction and recycling options continued for office materials.</p> <p>Met Goal – Municipal buildings, parking lots and the public works yard were inspected.</p> <p>Met Goal – The SPCC was updated in December 2017.</p>
<p>5.5 Storm Sewer System Maintenance</p>	<p>1. Maintain the plan for storm water system maintenance.</p> <p>2. Maintain the current schedule for maintenance operations. Revise as necessary.</p> <p>3. Continue current procedures to address complaints and other problems. Revise as necessary.</p> <p>4. Continue to inspect lift stations monthly.</p> <p>5. Develop a list of potential problem areas for increased inspections.</p>	<p>Met Goal – A list of pollutants of concern was developed and updated on November 6, 2017.</p> <p>Met Goal – The SOP was continued. All channels were inspected and 52% of the inlets were inspected.</p> <p>Met Goal – Channels and inlets are inspected and cleaned or repaired as needed based on the inspections.</p> <p>Met Goal - Complaints are addressed as needed.</p> <p>Exceeded Goal – storm lift stations were inspected weekly – 104 inspections between the 2 lift stations.</p> <p>Met Goal – List was developed on November 8, 2017</p>
<p>5.6 Waste Reduction of Information Technology and Communications Operations</p>	<p>1. Continue recycling of all batteries, cables, aluminum scrap, computer parts, and printer cartridges from IT operations.</p> <p>2. Continue feasible procedures to collect and recycle batteries from deployed equipment.</p>	<p>Met Goal – The city recycled a total of 4268 pounds of electronic waste (February 14, 2018 – 4220lbs, March 12, 2018 - 48lbs).</p> <p>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.</p>
<p>5.7 Grease, Sand and Grit Trap Maintenance</p>	<p>1. Continue current pumping frequency.</p> <p>2. Evaluate pumping frequency according to City Ordinance and change as necessary.</p>	<p>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.</p> <p>Met Goal – Except at the Senior Center which was pumped as needed but is being changed to every 6 months.</p>

5.8	Sand Storage Locations	<ol style="list-style-type: none"> 1. Limit sand, salt, and liquid deicer application to minimum amount necessary to ensure safe driving and walking conditions. 2. Maintain SDS on site for salt and liquid deicer. 3. Implement appropriate controls for sand, salt, and liquid deicer storage. 4. Identify pollutants of concern from the three materials used. 5. Develop written Pollution Prevention Measures to reduce the discharge of pollutants from this BMP. 6. Inspect controls for sand, salt, and deicer storage. 7. Implementation Complete. 		<p>Met Goal – Public Works used the following amounts: Liquid deicer – used 791 gallons; Sand – used 28.96 cubic yards. Facilities did not apply deicer materials during this reporting period.</p> <p>Met Goal – SDSs are maintained on site.</p> <p>Met Goal – Controls are in place for sand, salt, and liquid deicer.</p> <p>Completed May 23, 2016.</p>
5.9	City Owned Facilities	<ol style="list-style-type: none"> 1. Inventory of city owned facilities. 2. Map of city owned facilities & other stormwater controls. 3. Assessment of city owned facilities. 4. Identification of high priority facilities. 5. Development of facility specific SOPs for high priority facilities. 6. Inspection of city facilities. 		<p>Met Goal – Pollution prevention measures for sand, salt, and liquid deicer was developed.</p> <p>Met Goal – Sand, salt, and liquid deicer controls were inspected during the annual facility inspections and weekly inspections.</p> <p>Met Goal – implementation complete.</p> <p>Completed by December 12, 2015 but will be updated as needed.</p> <p>Completed by December 12, 2015.</p> <p>Completed by December 12, 2016.</p> <p>Completed by December 12, 2016.</p> <p>Met Goal – SOPs for high priority facilities have been developed.</p> <p>Met Goal – The eight high priority facilities were inspected during this reporting period and AST annual inspections were done for the appropriate facilities.</p>
5.10	Structural Control Maintenance and Waste Disposal	<ol style="list-style-type: none"> 1. Review, update, and log data of the inventory of structural controls. 2. Continue inspection of structural controls and implement maintenance plan. 		<p>Met Goal – The inventory of structural controls has been updated.</p> <p>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, and maintenance of permeable pavement is done by an outside contractor as needed.</p>
5.11	New Construction and Land Disturbance	<ol style="list-style-type: none"> 1. Comply with TPDES construction storm water permit requirements for projects in which the city meets the definition of operator. 		<p>Met Goal – The city complied with TPDES construction permit requirements for those projects that were applicable.</p>

	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	<ol style="list-style-type: none"> 1. Develop a list of contractors. 2. Contractually require contractors to comply with stormwater control measures, good housekeeping practices and facility-specific SOPs. 3. Develop Oversight Procedures. 4. Implementation Complete. 	<p>Completed by December 12, 2015.</p> <p>Completed by December 12, 2015.</p>
5.13 Fire Fighting Training Activities	<ol style="list-style-type: none"> 1. Continue implementing BMPs during training activities. 	<p>Met Goal – Oversight procedures were developed.</p> <p>Met Goal – Implementation Complete.</p> <p>Met Goal – Fire continues to implement BMPs during training activities.</p>
5.14 Employee Storm Water Pollution Prevention Training Program	<ol style="list-style-type: none"> 1. Participate in the NCTCOG regional program to identify pollution prevention training materials and/or develop new materials as needed. 2. Continue training all employees in departments responsible for operations or maintenance functions. Document training. 	<p>Met Goal – Staff attended the NCTCOG Pollution Prevention Task Force Meetings and participated in developing training materials,</p> <p>Met Goal – Training began in September 2018 and will be completed by the end of October 2018. In addition, employees continue to attend stormwater training such as Dry Weather Field Screening, EPA MS4 Conference, NCTCOG SWPPP During Construction, and other courses offered by NCTCOG and other cities.</p>
6.1 Inspection of Industrial Facilities	<ol style="list-style-type: none"> 1. Annually inspect 100 industrial facilities. 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. 3. Implementation complete. 	<p>Exceeded Goal – Inspected 134 industries (24 regulated and 110 from waste surveys). 5 NOV's were issued to the SIUs.</p> <p>Met Goal – Industries have been identified and required to obtain coverage under the MSGP. The waste survey is done every 3 years.</p> <p>Met Goal.</p>
6.2 Inventory/ Inspection of Commercial Facilities	<ol style="list-style-type: none"> 1. Maintain an inventory of commercial facilities with grease/grit traps. 2. Conduct one inspection per year for all food establishments. 3. Conduct at least 25 commercial inspections per year. 4. Inspect all active grease/grit traps in database once per year. 5. Implementation complete. 	<p>Met Goal – An inventory of grease/grit traps has been maintained.</p> <p>Exceeded Goal – Many food establishments were inspected multiple times – conducted 1,518 inspections at 659 food establishments.</p> <p>Exceeded Goal – Inspected 58 commercial facilities.</p> <p>Exceeded Goal – All active grease/grit traps have been inspected – 595 inspections of 548 traps.</p> <p>Met Goal.</p>

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 two 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 Engineering and Earth Sciences website at <http://www.water-research.net/watqualindex/index.htm>. Six creeks were monitored with 18 sampling locations, namely: Indian Creek, Dudley Branch, Fumneau Creek, Hutton Branch, Cooks Branch, and the Valwood Improvement Channel. The WQI results from the January 2018 data were 13 had a Good rating, 3 had a Good/Excellent rating, and 2 had an Excellent rating. The results from the June 2018 monitoring had 1 location with a Medium rating, 14 with a Good rating, and 3 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 and 4 new outfalls were added to the list. Dry Weather Screening was conducted at the 62 outfalls in February/March 2018 and July 2018. 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 371 spills and illicit discharges, 26 illegal dumping cases and 17 complaints about pet waste. Parks removed trash from greenbelts and waterways at least 200 days a year, collected and removed 190 pounds of paper and plastic from the net at Josey Ranch Lake and removed 71 bags of trash from focused clean-ups in 4 areas, and Public Works removed 47,735 pieces of trash from the roadways and ditches. Residents disposed of 13,225 pounds of household hazardous waste through the free service. The city swept 2,800.78 curb miles which included the major arterials and selected city parking lots. The city inspected 52% of the storm drain inlets. We conducted stormwater inspections at 1,518 food establishments, 58 commercial facilities, and 137 industries. The 548 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, 2018 that have not already being implemented within this reporting period.

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.
2	2.13	Employee Training for Illicit Discharges	2. Train all field employees. 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.
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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?
 2a. Is the permittee part of a group sharing a SWMP with other entities?
 2b. Is this a system-wide annual report including information for all permittees?

No
No
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: 29
No. of municipal construction activities greater than or equal to 1 acre: 7
 2. Does the permittee utilize the optional 7th MCM related to Construction? No

Appendix I
Surface Water Monitoring Data

Station	Date	Parameter	Value	Unit
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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)
01/10/2018	IC1	9.6	7.72	12.7	842	66.8	0.26	0.616	83 - Good
01/10/2018	IC2	9.6	8	11.9	860	27.5	0.16	0.616	88 - Good
01/10/2018	FC1A	9.8	7.72	11.7	595	26.5	0.142	1.62	90 - Good/Excellent
01/10/2018	FC2	8.6	7.6	12.6	604	18.8	0.08	18.8	91 - Excellent
01/10/2018	FC3	10.1	7.75	13.8	23.7	515	0.14	2.024	79 - Good
01/10/2018	FC4	9.5	8.15	12.3	764	18	0.1	0.264	88 - Good
01/10/2018	FC5	9.3	7.82	13.5	567	5.98	0.06	3.08	90 - Good/Excellent
01/15/2018	HB1	10.8	6.58	15.9	529	27.1	0.04	0.088	81 - Good
01/15/2018	HB2	5.2	6.69	14.3	671	6.39	0.06	1.848	90 - Good/Excellent
01/15/2018	HB3	7.1	8.58	13.9	373	21.6	0.1	0	83 - Good
01/15/2018	HB4A	8.1	7.57	13.1	684	4.14	0.2	4.4	88 - Good
01/15/2018	HB5	6.7	8.12	17.4	576	1.13	0.14	0.704	79 - Good
01/10/2018	DB1	7.9	8	12.9	502	44.2	0.16	0	86 - Good
01/10/2018	DB2	11.4	8.24	13.5	1058	7.66	0.12	0.352	87 - Good
01/10/2018	DB3	11.5	8.34	20.1	929	5.69	0.08	0.704	76 - Good
01/15/2018	CB1A	13.8	7.04	12.2	600	20.4	0.22	2.64	86 - Good
01/15/2018	CB2	13.1	6.69	10	709	4.19	0.06	0	93 - Excellent
01/15/2018	VII	14.8	8.11	18.5	852	5.23	0.12	0.176	77 - Good

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)
06/13/2018	IC1	27.7	7.83	7.6	780	58.5	0.14	0.704	86 - Good
06/13/2018	IC2	27	7.69	7.1	812	6.71	0.06	0.528	93 - Excellent
06/11/2018	FC1A	32.2	7.77	5	455	9.62	0.08	0	86 - Good
06/11/2018	FC2	28.8	8.36	10.8	747	5.03	0.1	0	76 - Good
06/11/2018	FC3	29.5	7.78	5.1	337	3.9	0.08	0	87 - Good
06/11/2018	FC4	26.7	7.68	4.5	790	17.2	0.1	0	78 - Good
06/11/2018	FC5	26.2	7.36	2.9	506	2.45	0.06	0.44	74 - Good
06/11/2018	HB1	34.2	7.76	8.3	755	4.27	0.06	0	92 - Excellent
06/11/2018	HB2	27.2	7.59	7.3	610	7.54	0.08	0	94 - Excellent
06/11/2018	HB3	28	7.13	3.8	519	6.82	0.1	0	77 - Good
06/11/2018	HB4A	25.6	7.53	6.5	731	1.3	0.1	4.4	88 - Good
06/11/2018	HB5	26	8.1	11.6	590	1.39	0.06	0.616	79 - Good
06/13/2018	DB1	27.3	7.59	6	888	8.84	0.08	0	89 - Good
06/13/2018	DB2	26.6	7.61	5.6	1220	17	0.12	0.484	84 - Good
06/13/2018	DB3	29.6	7.85	12.3	1176	6.71	0.1	0	79 - Good
06/13/2018	CB1A	27.9	8.25	15	636	3.81	0.2	0.088	76 - Good
06/13/2018	CB2	29.5	8.66	13.2	655	6.61	0.26	0	72 - Good
06/11/2018	VII	36.4	9.95	12.6	613	5.52	0.12	0	66 - Medium

Appendix II

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

Outfall ID	Location	Monitoring Data	Dry Weather Screening Data
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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 (µS)	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
01/10/2018	IC1	9.6	8	11.9	860	27.5	0.16	0.616	no	no	no	Clear	88 - Good
06/13/2018	IC1	27.7	7.83	7.6	780	58.5	0.14	0.704	no	no	no	cloudy green	86 - 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:	2/5/18 10:42am	2/5/18 2:58am	2/5/18 10:40am	2/5/18 3:00pm	2/5/18 11:25am	2/5/18 3:26pm	2/5/18 11:10am	2/5/18 3:15pm	2/5/18 11:40am	2/5/18 3:40pm	2/5/18 11:43am	2/5/18 3:43pm	2/5/18 11:43am	2/5/18 3:46pm
Flow	No	No	Low	Low	None	None	Medium	None	None	None	None	None	None	None
pH (ppm)			8.45	8.47			8.36							
Conductivity (µS)			>1990	>1990			447							
Detergent (ppm)			0	0			0							

Ammonia Nitrogen (ppm)			0								0					
Water Temp (°F)			25								25					
Turbidity (NTU)			1.34								2.09					
Chlorine (ppm)			0								1					
Color			Clear								Clear					
Odor			No								No					
Sewage			No								No					
Surface Scum			No								No					
Trash			No								No					
Oil Sheen			No								No					

Outfalls:	OF4040		OF4041		OF4039		OF4038		OF428		OF382		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	7/17/18 9:35am	7/17/18 2:35pm	7/17/18 9:36am	7/17/18 2:35pm	7/17/18 9:50am	7/17/18 2:55pm	7/17/18 9:50am	7/17/18 2:56pm	7/17/18 9:53am	7/17/18 3:00pm	7/17/18 9:55am	7/17/18 3:05pm	7/17/18 9:54am	7/17/18 3:06pm
Flow	No	No	Low	Low	None	None	Medium	None	None	None	None	None	None	None
pH (ppm)			7.64	7.94										
Conductivity (µS)			1636	859										
Detergent (ppm)			0	too turbid										
Ammonia Nitrogen (ppm)			0	too turbid										

Water Temp (°F)										27.4	32.1							
Turbidity (NTU)										227	too turbid							
Chlorine (ppm)										0	too turbid							
Color										cloudy brown	BS104							
Odor										No	No							
Sewage										No	No							
Surface Scum										No	No							
Trash										No	No							
Oil Sheen										No	No							

Turbidity from water main break

Hutton Branch:

Surface Water Monitoring

Date:	Location:	Water Temp (°C)	pH	DO (mg/L)	Conductivity (µS)	Turbidity (NTU)	Total Phosphate (mg/L)	Nitrate (mg/L)	Oil Sheen	Trash	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
01/15/2018	HB-5	6.7	8.12	17.4	576	1.13	0.14	0.704	No	Yes	No	Clear	79 - Good

06/11/2018	HB-5	26	8.1	11.6	590	1.39	0.06	0.616	No	Yes	No	Clear	79 - Good
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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:	2/5/2018 12:14pm	2/5/2018 4:16pm	2/5/2018 12:14pm	2/5/2018 4:16pm	2/5/2018 12:40pm	2/5/2018 4:40pm	2/5/2018 12:41pm	2/5/2018 4:41pm	2/5/2018 12:20pm	2/5/2018 4:25pm
Flow	None	None	None	None	None	None	None	None	Medium	Medium
pH									7.86	7.77
Conductivity (µS)									743	812
Detergent (ppm)									0	0
Ammonia Nitrogen (ppm)									0	0
Water Temp (°F)									25	25
Turbidity (NTU)									0.98	0.74
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:	OF1435		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:	7/17/2018 10:18pm	7/17/2018 3:23pm	7/17/2018 10:18am	7/17/2018 3:23pm	7/17/2018 11am	7/17/2018 3:53pm	7/17/2018 11:01am	7/17/2018 3:54pm	7/17/2018 10:32am	7/17/2018 3:28pm
Flow	None	None	Low	None	None	None	None	None	Low	Low
pH			7.68	7.81					7.66	7.68
Conductivity (µS)			1160	1361					827	827
Detergent (ppm)			0	0					0	0
Ammonia Nitrogen (ppm)			0	0					0	0
Water Temp (°F)			27.3	29.9					28.5	29.1
Turbidity (NTU)			22.2	20.5					1.6	1.96
Chlorine (ppm)			0	0					0	0
Color			BCS120	BCS120					Clear	Clear
Odor			No	No					No	No
Sewage			No	No					No	No
Surface Scum			No	No					No	No
Trash			No	No					No	No
Oil Sheen			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
01/15/2018	CB1A	13.8	7.04	12.2	600	20.4	0.22	2.64	No	No	No	Clear	86 - Good
06/13/2018	CB1A	27.9	8.25	15	636	3.81	0.2	0.088	No	Yes	No	Clear	76 - Good

Dry Weather Screening

Outfalls:	OF1118		OF1112	
	1st Visit	2nd Visit	1st Visit	2nd Visit
Date/Time:	3/12/2018 11:15am	3/13/2018 10:51am	3/12/2018 11:00am	3/13/2018 10:40am
Flow	Low	Low	Low	Low
pH	8.31	8.25	8.41	8.36
Conductivity (µS)	792	800	1241	1280
Detergent (ppm)	0	0	0	0
Ammonia Nitrogen (ppm)	0	0	0	0
Water Temp (°F)	14.8	15.2	14.7	14.8
Turbidity (NTU)	0.93	0.73	3.8	4.39
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	No	No	No	No
Oil Sheen	No	No	No	No

Outfalls:	OF1118		OF1112	
	1st Visit	2nd Visit	1st Visit	2nd Visit
Date/Time:				

	7/17/2018 11:12am	7/17/2018 4:03pm	7/17/2018 11:14am	7/17/2018 4:06pm
Flow	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				

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
01/15/2018	VI-1	14.8	8.11	18.5	858	5.23	0.12	0.176	No	Yes	No	Clear	77 - Good
06/11/2018	VI-1	36.4	9.95	12.6	613	5.52	0.12	0	No	No	No	Clear/green	66 - 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:	3/12/2018 11:36am	3/13/2018 11:09am	3/12/2018 11:36am	3/13/2018 11:09am	3/12/2018 11:38am	3/13/2018 11:10am	3/12/2018 11:38am	3/13/2018 11:10am	3/12/2018 11:37am	3/13/2018 11:10am
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
3/12/2018 11:38am	3/13/2018 11:10am	3/12/2018 11:38am	3/13/2018 11:10am	03/12/18 11:42am	3/13/2018 11:14am	3/12/2018 11:43am	3/13/2018 11:15am	3/12/2018 11:43am	3/13/2018 11:15am	3/12/2018 11:58am	3/13/2018 11:28am
None	None	None	None	None	None	Low	Low	None	None	None	None
						8.56	8.57				
						743	502				
						0	0				
						0	0				
						12	12.6				
						1.57	2.35				

							0	0
							Clear	Clear
							No	No
							No	No
							No	No
							No	No
							No	No

<u>OF4162</u>		<u>OF4160</u>		<u>OF1399</u>		<u>OF1398</u>		<u>OF1400</u>		<u>OF4159</u>	
1st Visit	2nd Visit	1st Visit	2nd Visit	1st Visit	2nd Visit	1st Visit	2nd Visit	1st Visit	2nd Visit	1st Visit	2nd Visit
3/12/2018 11:58am	3/13/2018 11:28am	3/12/2018 11:58am	3/13/2018 11:28am	3/12/2018 12:05pm	3/13/2018 11:34am	3/12/18 12:05pm	3/13/2018 11:34am	3/12/18 12:05pm	3/13/2018 11:35am	3/12/2018 12:06pm	3/13/2018 11:34am

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
3/12/2018 11:58am	3/13/2018 11:28am	3/12/2018 11:58am	3/13/2018 11:28am	3/12/2018 12:05pm	3/13/2018 11:34am	3/12/2018 12:05pm	3/13/2018 11:34am	3/12/2018 12:05pm	3/13/2018 11:35am	3/12/2018 12:06pm	3/13/2018 11:34am
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
3/12/2018 12:15pm	3/13/2018 11:50am	3/12/2018 12:20pm	3/13/2018 11:51am	3/12/2018 12:20pm	3/13/2018 11:51am	3/12/2018 12:20pm	3/13/2018 11:50am	3/12/2018 12:20pm	3/13/2018 11:51am	3/12/2018 12:35pm	3/13/2018 12:15pm
None	None	Low	Low	None	None	None	None	None	None	None	None
		8.14	7.69								
		622	550								
		0	0								
		0	0								
		11.5	11								
		7.4	5.03								

		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
3/12/18 12:38pm	3/13/18 12:16pm	3/12/18 12:38pm	3/13/18 12:16pm	3/12/18 12:38pm	3/13/18 12:16pm	3/12/18 1:15pm	3/13/2018 12:39pm	3/12/2018 1:15pm	3/13/2018 12:39pm	3/12/2018 1:15pm	3/13/2018 12:39pm
None	None	Low	Low	None	None	None	None	None	None	None	None
		8.47	too low to sample								
		729									
		0									
		0									
		17.9									
		3.26									

			0											
			No											
			Clear											
			No											
			No											
			No											
			No											
			No											

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
3/12/2018 1:15pm	3/13/2018 12:41am	3/12/2018 1:30pm	3/13/2018 12:42pm	3/12/2018 1:30pm	3/13/2018 12:58pm	3/12/2018 1:30pm	3/13/2018 12:58pm	3/12/2018 1:33pm	3/13/2018 1:00pm	3/12/2018 1:33pm	3/13/2018 1:00pm
Low	Low	None	None	None	None	None	None	None	None	None	None
7.56	7.43										
1739	1802										
0	0										
0	0										
15.6	15.4										
4.59	5.44										

0	0								
Clear	Clear								
No	No								
No	No								
No	No								
No	No								
No	No								

OF2286		OF2295		OF1455		OFXXX_nexL10 2288		OFXXX between 1358 & * 1399		OFXXX left of 1458	
1st Visit	2nd Visit	1st Visit	2nd Visit	1st Visit	2nd Visit	1st Visit	2nd Visit	1st Visit	2nd Visit	1st Visit	2nd Visit
3/12/18 1:36pm	3/13/18 1:05pm	03/12/2018 1:36pm	3/13/18 1:06pm	3/12/2018 1:30pm	3/13/2018 12:58pm	3/12/18 12:20pm	3/13/18 11:50am	3/12/18 12:05pm	3/13/2018 11:34am	3/12/18 11:42am	3/13/18 11:14am
None	None	None	None	None	None	None	None	None	None	None	None

<u>OFXXX next to</u>	
	1456
1st Visit	2nd Visit
3/12/18 11:37am	3/13/18 11:10am
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:	7/23/2018 9:39am	7/23/2018 2:26pm	7/23/2018 9:39am	7/23/2018 2:26pm	7/23/2018 2:29pm	7/23/2018 2:29pm	7/23/2018 9:43am	7/23/2018 2:29pm	7/23/2018 9:43am	7/23/2018 2:29pm
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
7/23/2018 9:45am	7/23/2018 2:20pm	7/23/2018 10:19am	7/23/2018 2:45pm	7/23/2018 9:48am	7/23/2018 2:35pm	7/23/2018 9:50am	7/23/2018 2:40pm	7/23/2018 9:50am	7/23/2018 2:40pm	7/23/2018 9:50am	7/23/2018 2:40pm
None	None	None	None	None	None	None	None	None	None	None	None

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
7/23/2018 9:50am	7/23/2018 2:40pm	7/23/2018 9:50am	7/23/2018 2:40pm	7/23/2018 10:24am	7/23/2018 2:44pm	7/23/2018 10:24am	7/23/2018 2:44pm	7/23/2018 10:24pm	7/23/2018 8 2:44pm	7/23/2018 9:43am	7/23/2018 2:29pm
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
7/23/2018 10:19am	7/23/2018 2:45pm	7/23/2018 10:19am	7/23/2018 2:46pm	7/23/2018 10:18am	7/23/2018 2:47pm	7/23/2018 10:18am	7/23/2018 2:47pm	7/23/2018 10:15am	7/23/2018 2:48pm	7/23/2018 10:15am	7/23/2018 2:48pm
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
7/23/2018 10:15am	7/23/2018 2:49pm	7/23/18 9:58am	7/23/2018 2:52pm	7/23/2018 9:58am	7/23/2018 2:52pm	7/23/2018 9:58am	7/23/2018 2:52pm	7/23/2018 9:58am	7/23/2018 2:52pm	7/23/2018 10:50am	7/23/2018 3:09pm
None	None	Low	Low	None	None	None	None	None	None	None	None
		too low to sample	too low to sample								

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
7/23/18 10:50am	7/23/2018 3:09pm	7/23/18 10:50am	7/23/18 3:09pm	7/23/2018 10:50am	7/23/18 3:30pm	7/23/18 11:10am	7/23/18 3:31pm	7/23/18 10:10am	7/23/18 3:31pm	7/23/18 11:10am	7/23/18 3:31pm
None	None	Low	Low	None	None	None	None	None	None	None	None
		7.88	7.91								
		587	430								
		0	0								
		0	0								
		26.4	28								
		7.02	6.2								
		0	0								
		Clear	Clear								
		No	No								
		No	No								
		No	No								
		No	No								
		No	No								

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
7/23/18 11:11am	7/23/18 3:33pm	7/23/18 11:11am	7/23/18 3:33pm	7/23/18 11:25am	7/23/18 3:47pm	7/23/18 11:25am	7/23/18 3:47pm	7/23/18 11:24am	7/23/18 3:45pm	7/23/18 11:24am	7/23/18 3:46pm
None	None	None	None	None	None	None	None	None	None	None	None

OF2286		OF2295		OF1455		OFXXX next to 2288		OFXXX between 1358 &* 1399		OFXXX left of 1458	
1st Visit	2nd Visit	1st Visit	2nd Visit	1st Visit	2nd Visit	1st Visit	2nd Visit	1st Visit	2nd Visit	1st Visit	2nd Visit
7/23/18 11:30a	7/23/18 4:00pm	7/23/18 11:30a	7/23/201 8 4:01pm	7/23/2018 11:25am	7/23/18 3:47pm	7/23/18 10:15am	7/23/18 2:49pm	7/23/18 9:47am	7/23/18 2:36pm	9/23/2018 9:45am	09/23/18 2:29pm
None	None	None	None	None	None	None	None	None	None	None	None

OFXXX next to

1456	
1st Visit	2nd Visit
07/23/18 9:43am	7/23/18 2:29pm
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): _____ Title: _____ City Manager, City of Carrollton _____

Signature:  _____ Date: 12/11/18 _____

