



City of Grand Prairie &

Dallas County Flood Control District #1

TPDES Phase II Small MS4 General Permit Annual Report

Year 1: August 13, 2013 ~ December 31, 2014

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List of Acronyms

BMP	Best Management Practice
CRP	Clean Rivers Program
DCFCD	Dallas County Flood Control District #1
DDM	Drainage Design Manual
EPA	Environmental Protection Agency
ESD	City of Grand Prairie Environmental Services Department
GIS	Geographic Information Systems
GPISD	Grand Prairie Independent School District
HHW	Household Hazardous Waste
KGPB	Keep Grand Prairie Beautiful
MEP	Maximum Extent Practicable
MCM	Minimum Control Measure
MS4	Municipal Separate Storm Sewer System
MSW	Municipal Solid Waste
NCTCOG	North Central Texas Council of Governments
NPDES	National Pollutant Discharge Elimination System
O&M	Operation and Maintenance
P2	Pollution Prevention
SIC	Standard Industrial Classification
SSO	Sanitary Sewer Overflow
SPCC	Spill Prevention Control and Countermeasure
SWMP	Storm Water Management Program
SWP3	Storm Water Pollution Prevention Plan
TCEQ	Texas Commission on Environmental Quality
TPDES	Texas Pollutant Discharge Elimination System
UDC	Unified Development Code

Part I. General Information

Municipality/Authorization #: City of Grand Prairie/ TXR040065
District/Authorization #: Dallas County Flood Control District #1/ TXR040255

TPDES Permit #: TXR040000

TCEQ NOI Form #: 20368

Year 1 Reporting Period, Calendar Year: August 13, 2013 – December 31, 2014

City of Grand Prairie: MS4 Operator Level 4
Dallas County Flood Control District #1: MS4 Operator Level 2

Primary Contact: Cindy Mendez Title: Environmental Quality Manager

Telephone #: (972) 237-8055 Email: cmendez@gptx.org

Mailing Address: 206 W. Church Street, 2nd Floor, Grand Prairie TX 75050

Secondary Contact: Echo Rexroad Title: Senior Environmental Specialist

Telephone #: (972) 237-8082 Email: erexroad@gptx.org

Mailing Address: 206 W. Church Street, 2nd Floor, Grand Prairie TX 75050

This report was prepared for and sent to:

Texas Commission on Environmental Quality
Storm Water & Pretreatment Team; MC -148
P.O. Box 13087
Austin, Texas 78711-3087

A copy of this report was sent to:

Texas Commission on Environmental Quality
Water Section; Attn: Jeff Tate
2309 Gravel Drive
Fort Worth, TX 76118-6951

Part II. Interlocal Agreement

The City of Grand Prairie and Dallas County Flood Control District #1 (DCFCD) jointly submitted the Storm Water Management Program as described in an interlocal agreement approved by the aforementioned entities on May 9, 2014 (Appendix A). According to Part III of the General Permit, a permittee may enter into interlocal agreements with municipalities where the small MS4 is located in order to meet the goals of the permit if the permittee does not have enforcement authority and is unable to meet the goals of the general permit through its own powers. Approximately 20% of the DCFCD is located within the City of Grand Prairie boundaries; however, the DCFCD does not have enforcement capabilities. As a result, the City of Grand Prairie and DCFCD agreed to the joint submission of the SWMP where the DCFCD is solely responsible for only two (2) best management practices (BMPs) (BMP 5.3 and 5.4). The City of Grand Prairie is entirely responsible for all other BMPs described in the SWMP.

For the aforementioned reason, the City of Grand Prairie and DCFCD have jointly submitted this annual report.

Part III. Additional Information

1. No changes were made to or proposed for the SWMP.
2. No additional BMPs will be implemented.
3. A list of allowable non-stormwater discharges was *not* developed.
4. Minimum control measure (MCM) 7 is not utilized for this permit.
5. See Table 4 for the number of non-municipal construction activities as provided to the City via notices of intent or site notices.
6. The City of Grand Prairie annexed land on October 15, 2013 (see Appendix B).
7. There are no newly listed receiving waterbodies for this MS4 on the 2012 Texas 303(d) list.
8. On September 24, 2013, the TCEQ adopted *Thirteen Total Maximum Daily Loads for Indicator Bacteria in the Lower West Fork Trinity River Watershed*. In addition to the Lower West Fork of the Trinity River, these bacteria Total Maximum Daily Loads (TMDLs) include tributaries located in Grand Prairie.

On December 20, 2000, TMDLs were approved by the TCEQ for legacy pollutants in segments 0841 (Lower West Fork of Trinity River) and 0841A (Mountain Creek Lake).

Part IV. Stormwater Monitoring Data and Impaired Waterbodies

Monitoring Data

The City has conducted analytical monitoring of stormwater quality. See BMP 2.11 and BMP 2.18 for the discussion and summary of stream and Joe Pool Lake beach monitoring results, respectively.

TMDLs and Impaired Waterbodies

The City of Grand Prairie discharges to a waterbody for which there is a TCEQ approved TMDL for bacteria. The City has also determined that it may be a source of bacteria for impaired waterbodies (as listed on the CWA 303(d) list) that do not have an approved TMDL. As such, the City has implemented the BMPs described in the SWMP and, where applicable, the TCEQ approved *Implementation Plan for Seventeen Total Maximum Daily Loads for Bacteria in the Greater Trinity River Region (I-Plan)* throughout these and all other areas of Grand Prairie where bacteria is a pollutant of concern (as described in the City's approved SWMP). See the following *Part V Narrative Provisions* and *Part VI Summary of Minimum Control Measures* below for these results.

In order to determine if the BMPs established are effective in addressing bacteria in stormwater discharges from the City to the maximum extent practicable (MEP), the City has elected to use the Waste Load Allocations for permitted stormwater sources identified in the *Thirteen Total Maximum Daily Loads for Indicator Bacteria in the Lower West Fork Trinity River Watershed* as a benchmark. In order to evaluate and report progress towards the benchmark, the City has identified the appropriateness and success of the implemented BMPs by using program indicators (i.e. tons of trash collected, number of illegal dumping complaints received, etc.). See the following *Part V Narrative Provisions* and *Part VI Summary of Minimum Control Measures* below for these results.

Part V. Narrative Provisions

Status of the Compliance with Permit Conditions

The City of Grand Prairie and DCFCD have completed the required self-assessment and have determined that the City and DCFCD are in compliance with all permit conditions. The City and DCFCD: 1) are currently in compliance with the SWMP as submitted to and approved by the TCEQ, 2) are in compliance with recordkeeping and reporting requirements, and 3) meet the eligibility requirements of the permit.

Success of Implementation

For an evaluation of the success of the implementation of the measurable goals, including any obstacles or challenges, see *Summary of Minimum Control Measures* below.

Appropriateness and Effectiveness of Year 1 BMPs for Reducing Pollutants and Reaching Bacteria Benchmark

Each of the Year 1 BMPs was assessed as appropriate. Table 1 describes the estimated level of effectiveness of all Year 1 BMPs as they relate to the reduction of the discharge of pollutants to the MEP. Included in this assessment is the progress towards reaching the benchmark for bacteria, as described in the SWMP. See the *Summary of Minimum Control Measures* below for more details.

Table 1: BMP Effectiveness, Progress towards Reducing the Discharge of Pollutants to the MEP, and Progress towards Reaching Bacteria Benchmark

<i>BMP</i>	<i>Description</i>	<i>Effectiveness</i>	<i>Progress</i>
1.1	HHW Program	High	Encourages the proper disposal of hazardous waste and informs citizens of when and where they can dispose of waste
1.2	Pet Waste	Moderate	Give-a-ways, PSAs, and brochures target the appropriate audience and encourage proper disposal of pet waste
1.3	Environmental Workshop	High	Surveys indicate that information helps facilities comply
1.4	Commercial/Industrial Floatables Education	Moderate	Educational materials discuss methods for reducing floatables. Reaches the appropriate audience as brochures are distributed during inspections, classes, workshops, and at the Development Center
1.5	Information for ARB	High	Compliance has increased significantly
1.6	School Curriculum	High	The City purchased and distributed 70 Major Rivers Educational Packets for GPISD. This program emphasizes the importance of stormwater pollution controls to young students who in turn may relay this information to their older parents/guardians.
1.7	Interactive Watershed Model	Low	Effective method of teaching the concept of a watershed; however, the model has limited outreach capabilities
1.8	Utility Bill Insert	High	This is the most widely read city publication. Twenty-three (23) stormwater related articles were published and distributed during this reporting period. This is an increase in number from the fourteen (14) articles published last reporting period

1.9	Multimedia Education	Moderate	Promotes watershed awareness to Grand Prairie citizens through Grand Prairie TV, the City's website, and Facebook
1.10	Non-English	High	There is a high population of only Spanish speaking citizens in Grand Prairie
1.11	Visitor Education	Moderate	Website visited by anyone with access to the internet
1.12	Drain Markers	Moderate	Increases awareness of the storm drain system to citizens and to those installing markers. 101 storm drain makers were placed during this reporting period
1.13	Educational Event	High	Event brings awareness to stormwater issues and reaches hundreds of residents in one day
1.14	HHW Events	High	Actively allows citizens to participate and dispose of HHW properly. In Year 1, 1,500 households participated in the events and ~32,900 pounds of hazardous waste products were recycled. This is an increase in the number of participating households and pounds of waste collected from last reporting period, where 1,183 households participated and ~28,165 pounds of hazardous waste products were recycled
1.15	Mailing Lists	Moderate	Increases ability to reach targeted audiences consistently
1.16	Annual Awards	High	Mandates stormwater compliance to achieve recognition
1.17	Clean Rivers on Website	Low	Reaches only those perusing the City's stream monitoring website; however, once on the Clean Rivers site, citizens are able to better understand water quality issues
1.18	Lawn and Garden	Low	Reaches only those perusing website or seeking to understand SmartScape demonstration gardens, but increases awareness of alternative chemicals and benefits to planting native species
1.19	Don't Bag It	Moderate	Encourages a reduction in potential storm water contaminants such as fertilizers, insecticides and herbicides, while preserving valuable landfill space
1.20	H2O Line	Moderate	Reminds industrial facilities of reporting deadlines and gives them BMP information to increase compliance with industrial stormwater permit. Over 370 newsletters were distributed to industrial businesses during this reporting period
1.21	Auto Watch	Moderate	Newsletter containing targeted information, including stormwater BMPs, for automotive sector. Distributed to over 300 automotive businesses twice a year
1.22	Construction BMPs	Low	Reaches developers seeking out educational information
1.23	Public Notice	Low	Not applicable
1.24	Texas Stream Team	High	Stream monitors sample at different locations and/or times than the City's stream monitoring. Data collected has the potential to reveal areas needing further monitoring, remediation, and/or enforcement. Three monitors were trained during this reporting period.
1.25	Master Composter	Moderate	Provides students with practical alternatives to over-applying fertilizer, potentially reducing the amount of excessive nutrients to local waterways. There were twenty-three (23) students during this reporting period.
1.26	Illegal Dumping Hotline	High	City staff are made aware of polluted areas that they may have otherwise missed
1.27	Stakeholder Meetings	High	Citizens and City staff come together to make most appropriate decisions for SWMP
1.28	Neighborhood Outreach	Moderate	Neighborhood associations are encouraged to form cleanup committees.
1.29	School Outreach	High	Gets students and faculty involved in stewardship oriented activities, including Adopt-A-Stream cleanup efforts, storm drain marking projects, water quality monitoring programs and wetland education programs, resulting in the reduction of storm water pollutants

1.30	Advisory Committees/Task Force Groups	High	City staff participate in committees and task force groups in order to share information and develop stormwater programs
2.1	GIS MS4 Database	High	Map used to trace illicit discharges to waterbodies. Allows for effective remediation of spills, illicit discharges, and SSOs
2.3	Dry Weather Field Screening	High	The City contracted Alan Plummer Associates Inc. to inspect outfalls within Grand Prairie. Possible illicit discharges were reported back to the Environmental Quality division. 254 outfalls were inspected during this reporting period
2.4	Complaint database	Moderate	Tracks spills and creates historical information for assessment
2.5	Complaint response	High	Creates response mechanism. Incidents such as spills, illicit discharges, or sanitary sewer overflows are mitigated. Sixteen (16) spills and ten (10) SSOs were investigated and resolved during this reporting period. Twenty (23) spills and ten (10) SSOs were investigated and resolved during the last reporting period
2.6	Illicit Discharge/Spill Procedures	High	Standard operating procedures used for responding to spills. Stormwater pollution incidents are mitigated
2.7	Source Investigation and Elimination	High	Investigation and elimination of polluting sources
2.8	Spill response	High	Abates pollutants in our waterbodies
2.9	Building Project Review Process	High	Mandates compliance prior to operation
2.10	Illegal Dumping Hotline	High	City staff are made aware of polluted areas that they may have otherwise missed
2.11	Streams Sampling	High	Atypical results are investigated and mitigated. Pollutants are reduced to the MEP
2.12	SSO Response	High	Ensures the protection of our waterways following an SSO
2.13	IDDE Education	Moderate	Stormwater BMP posters, brochures, and videos are used to target the appropriate audience
2.16	Litter Collection	High	Approximately 129.98 tons of litter were collected during this reporting period and sent to the Grand Prairie Landfill. This is an increase from the last reporting period where 83.6 tons were collected. By preventing litter from remaining in the environment, both surface and groundwater are protected from potential contamination associated with it
2.17	Illegal Dumping Clean-up	High	Clean-up reduces potential pollutants. The City responded to 123 illegal dumping complaints during this reporting period. This is an increase from the 65 illegal dumping complaints received during the last reporting period
2.18	Beach Sampling Program	Moderate	Reduces health risks to citizens. Pollutants are reduced to the MEP. If high levels of E. coli are observed, attempts are made to determine and mitigate the source of the high levels
2.19	On Site Sewage System Permitting	High	Failing septic systems are identified and abated. Two (2) permits were issued and one (1) complaint was received during this reporting period
2.20	Auto Inspection Program	High	Enforcement and education encourages businesses to prevent pollutants from coming into contact with stormwater
2.23	Sanitary Sewer Systems	High	Maintenance of sanitary sewer systems and lift stations reduces SSOs

3.1	Review Construction Plans and Designs	High	Determines the effectiveness of the drainage and erosion control measures in plans and provides comments for revisions to reduce to the maximum extent practicable potential site specific erosion control concerns
3.2	Earthwork Permit	High	Prior to any land disturbing activity, all erosion controls must be in place according to the plan. By tracking the number of earthwork permits issued, the City monitors sites and maintains compliance before activities begin. A total of 113 earthwork permits were issued during this reporting period
3.3	Construction Inspection and Enforcement	Moderate	During this reporting period, written procedures for inspections and enforcement of construction sites were revised and implemented
3.4	Construction Ordinance	Moderate	Reviewed stormwater ordinance and Unified Development Code (UDC) to ensure sediment and erosion control requirements address permit requirements
3.5	Public Input	High	City investigator ensures problem areas are brought back into compliance, thus reducing pollution runoff
3.6	Construction Site Inventory	Low	Construction site inventory is developed and maintained
4.1	Development Review Process	High	Review of plans is used for the mitigation of impact. The number of plans that have been approved reflect the impact on post construction runoff will be minimal to the detention areas as well as to floodplains associated with the site, if applicable. The review process may require several modifications of a drainage plan by the engineer to allow the BMPs to operate at the maximum extent practicable
4.2	Unified Development Code and Stormwater Ordinance	Moderate	For this reporting period, the City reviewed the unified development code and drainage design manual for development and redevelopment processes
4.3	Post-Construction Control Measures	High	Identified, inventoried, and inspected post construction stormwater controls.
4.4	Operation and Maintenance of BMPs	Moderate	Review water quality protection considerations in maintenance plans. During this reporting period 9 detention/retention ponds were under the O&M Agreement and filed in the real property records.
5.1	Storm Sewer Operation and Maintenance	High	Maintenance includes cleaning, clearing, seeding, and overall maintenance of the storm sewer systems. During this reporting period, the City responded to 85 complaints and/or maintenance needs
5.2	MS4 Waste Disposal	High	Follow a standard operating procedure to clear and dispose of waste collected from the MS4
5.3	DCFCD Storm Sewer and Drainage Maintenance	Moderate	As situations arise in the DCFCD that require maintenance or waste removal, this BMP helps to reduce the discharge of pollutants
5.4	MS4 Waste Disposal for DCFCD	Moderate	Follow a standard operating procedure to clear and dispose of waste collected from the MS4 located in DCFCD
5.6	Street Operation and Maintenance	High	Street sweeping removes contaminants from the roadways thereby reducing the associated risk to the environment. 262.35 tons of materials were collected during street sweeping and delivered to the Grand Prairie Landfill for proper disposal during this reporting period. This is a slight increase from the 233.86 tons collected during the last reporting period

5.8	Data Tracking	Low	Not applicable
5.13	Mosquito Management	High	Controls products used and establishes processes so that applicators remain at a distance from fresh waterbodies
5.19	Pesticide, Herbicide, and Fertilizer Application and Management	High	Pesticide, herbicide, and fertilizers were properly collected and disposed of, preventing their entry into nearby waterbodies. SmartScape gardens were maintained
6.1	Industrial Inspection Program	High	Ensure TPDES compliance
6.2	Existing SWP3s	High	Inspections result in necessary updates to City SWPPPs. BMP improvements and/or additions are researched and implemented. Training City staff increases effectiveness of BMPs and helps to prevent pollutants from coming into contact with stormwater

Part VI. Summary of Minimum Control Measures

The following summary of MCMs includes the BMPs for each MCM, measurable goals, responsible party, target date, and activities completed for each BMP. The listed target date for each measurable goal is defined as the scheduled completion date for that goal where Year 1 completion date is December 31, 2014, Year 2 completion date is December 31, 2015, Year 3 completion date is December 31, 2016, Year 4 completion date is December 31, 2017, and Year 5 completion date is December 31, 2018. BMPs with more than one year listed will be completed for each year listed. Dates listed under *Activities Completed* are the completion dates for said activity. All activities planned for Year 2 are described by the *Target Date*.

Included in this summary is an evaluation of the success of the implementation of the measurable goals, including any obstacles or challenges in meeting the SWMP schedule, if applicable. This summary also includes 1) a summary of the results of information collected and analyzed to assess the success of the program at reducing the discharge of pollutants to the MEP and 2) a summary of activities taken to address the discharge to impaired waterbodies, including sampling results and 3) a summary of BMPs used to address bacteria.

Bacteria are a community-wide issue that are the target of many of the BMPs located throughout this report. **BMPs that focus on reducing bacteria in the MS4 have “TMDL” included in the name of the BMP. Please note, BMPs with this notation may target other pollutants of concern as well (e.g. sediments, floatables, etc.).**

MCM 1: Public Education, Outreach, and Involvement

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
1.1 Household Hazardous Waste (HHW) Program (TMDL)	Reduction of the unauthorized disposal of household hazardous waste will be promoted through the distribution of educational materials and through HHW events that provide city residents the opportunity to dispose of household hazardous waste.	1. Continue pamphlet and/or wheel distribution at the Development Center	Environmental Services Department, Environmental Quality Division	Years 1 – 5
		2. Discuss hazards of household hazardous waste at least 1 time per year in a City newsletter		Years 1 – 5
		3. Handout HHW magnets to at least 100 citizens per year		Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 1.1 Activities Completed

12/31/2014

HHW Magnets

The City distributed approximately 1,700 Household Hazardous Waste magnets. Magnets were distributed during Household Hazardous Waste events, during which we had 1,500 participants, and were made available to visitors at the Development Center, festivals, and during complaint inspections.

12/31/2014

HHW Wheel Distribution

The City distributed "Earth Saver" wheels at the Development Center and at Household Hazardous Waste events.

12/31/2014

Pipeline Articles

During this reporting period, fifteen (15) articles advertising HHW events and/or discussing the hazards of disposing of household hazardous waste improperly were printed in the Pipeline, a City newsletter distributed via water utility bills.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
1.2 Pet Waste Management Education and Involvement (TMDL)	Promote awareness of the hazards to health and the environment from pet waste through several forms of outreach.	1. Maintain "Doo the Right Thing" video on the City website and play on cable television annually	Environmental Services Department, Environmental Quality Division and Animal Services Division	Years 1 – 5
		2. Annually distribute at least 200 informative brochures to customers adopting pets at the Prairie Paws Adoption Center and display pet waste poster or banner in the Environmental Services Department (ESD) office		Years 1 – 5

3. Annually distribute a minimum of 200 informative brochures at the Development Center and/or at educational events

Years 1 – 5

4. Install 2 pet waste collection dispensers at any future pet park to promote proper owner disposal of pet waste

Year 4

All activities for this BMP are complete for Year 1.

BMP 1.2 Activities Completed

08/13/2013

"Doo the Right Thing" Video

The "Doo the Right Thing" video is posted on the City's website at www.gptx.org/EnvironmentalQuality/PetWaste. In addition, this video was aired on GPTV every day, once a day from August 2013 to December 2014.

12/31/2014

Display Poster and Banner

The City distributed Pet Waste & Water Quality brochures (in English and Spanish) explaining the environmental issues associated with pet waste and how to dispose of the waste properly. Two-hundred (200), or as many as needed, of these brochures were distributed at the Development Center and Prairie Paws Adoption Center. In addition, the "If you think picking up poop is unpleasant, try drinking it" poster is displayed in Environmental Quality Division's office and the "Doo the Right Thing" banner is displayed at the Prairie Paws adoption center.

09/12/2014

Door Hangers

The City purchased 250 "Doo the Right Thing" door hangers for distribution.

07/17/2014

Pet Waste Disposal Bag Dispenser

The City purchased 1,000 pet waste bag dispensers to distribute at City events.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
1.3 Environmental Compliance Workshops (TMDL)	Pollution Prevention (P2) measure concepts are promoted to industries to reduce waste generated and potential sources of stormwater pollution.	1. Encourage P2 measures through semi-annual environmental compliance workshops	Environmental Services Department, Environmental Quality Division	Years 1 – 5

The City met the goals for this Year 1 BMP.

BMP 1.3 Activities Completed

07/16/2014

Environmental Compliance Workshops

The Environmental Quality Division held 3 Environmental Compliance Workshops during the reporting period. On January 22, 2014, Sally Longroy, Attorney at Law with Guida Slavich & Flores, P.C., discussed the “Environmental, Health, & Safety Audit Privilege Act”. On April 24, 2014, Scott Deatherage, Partner with Gardere Wynne Sewell LLP, discussed “Current Issues in Air Permitting”. On July 16, 2014, Jay Brown, Trauma Coordinator with the Medical Center of Arlington discussed “Hearing Loss Prevention”.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
1.4 Commercial and Industrial Activity Education on the Impacts of Floatables (TMDL)	Awareness of and responsibility for floatables control and responsibility of commercial and industrial businesses will be integrated into existing activities by distributing information to selected facilities during routine inspections.	1. Distribute informative brochures to 50% of the industrial facilities and food permit holders inspected each calendar year	Environmental Services Department, Environmental Quality Division	Year 1-5
		2. Make available on the City website		Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 1.4 Activities Completed

12/31/2014

Brochure Distribution

Distributed English and Spanish "Clean It Right" brochures to food permit holders during inspections, at Food School, and at the Development Center. "An Industry's Guide for Protecting Grand Prairie's Watershed" was distributed during industrial inspections and at the Development Center.

08/13/2013

Brochures on Website

The "Clean it Right" and "An Industry's Guide for Protecting Grand Prairie's Watershed" brochures are on the City's website. These brochures may be found at www.gptx.org/environmentalquality/FoodService and www.gptx.org/environmentalquality/Industrial, respectively.

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
1.5 Informational Material for Automotive Related Businesses (TMDL)	Awareness of the impact of the automotive sector's pollutants on water quality will be integrated into existing activities through the distribution of information on BMPs and use of BMPs for automotive activities during routine Certificate of Occupancy inspections.	1. Distribute automotive and stormwater quality informative material during Certificate of Occupancy inspections	Environmental Services Department, Environmental Quality Division	Years 1 – 5
		2. Maintain auto related business BMPs on the City website		Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 1.5 Activities Completed

12/31/2014

ARB Educational Materials

Environmental Specialists with the Environmental Quality Division distributed automotive and stormwater quality educational materials during Certificate of Occupancy inspections. Materials included items such as posters, Auto Watch (an Environmental Quality and Code Enforcement publication), "Protect Our Water, Don't Dump" notepads, TCEQ's "The Used Oil Recycling Handbook, Guidance for Used Oil Handlers", Small Business and Local Government Assistance materials, a list of State permitted liquid and solid waste haulers, the City's Automotive Related Business ordinance, Operational Requirements for Mobile Wash Vendors, "You Can Protect Our Water" door hangers, "An Environmental Guide for Texas Automotive/Autobody Repair Shops", stormwater and backflow brochures, and a list of stormwater compliance due dates.

08/13/2013

BMPs on Website

Auto related BMPs are posted on Environmental Quality's Auto Related Business Education webpage. This page may be found at www.gptx.org/EnvironmentalQuality/ARB.

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
1.6 Funding for Elementary School Curriculum on Stormwater Quality (TMDL)	Education on stormwater quality and pollution prevention will be provided as needed to elementary schools in Grand Prairie ISD through the purchase of curriculum.	1. Purchase Major Rivers© or similar curriculum as needed for additional Grand Prairie ISD classrooms	Environmental Services Department, Environmental Quality Division	Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 1.6 Activities Completed

04/30/2014

Major Rivers Order

The City purchased and distributed to GPISD 70 English Replacement Packets.

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
1.7 Interactive Watershed Model Display on Stormwater Quality (TMDL)	Demonstrate to multiple age groups the effects of various residential and commercial pollutants on stormwater quality.	1. Annually display an interactive watershed model or similar display during child related educational events	Environmental Services Department, Environmental Quality Division	Year 2-5

The City exceeded the goals for this Year 1 BMP.

BMP 1.7 Activities Completed

11/07/2014

EnviroScape Demonstration

Environmental Quality Division Staff demonstrated the EnviroScape at a special school event held at the Nature Center on October 17, 2014. Approximately 100 children attended. In addition, the EnviroScape was on display at the Arbor Day festival held by the City at the Nature Center on November 7, 2014 (Figure 1). Approximately 1,000 children and adults attended the Arbor Day festival. The Environmental Quality Division also demonstrated the EnviroScape at the Earth Day festival located at the Grand Prairie Armed Forces Reserve Complex on April 22, 2014.

Figure 1: EnviroScape Demonstration at the Arbor Day Festival



08/15/2013

Purchase New EnviroScape

The Environmental Quality Division purchased a new EnviroScape.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
1.8 Utility Bill Insert (TMDL)	Raise awareness of stormwater issues for citizens by placing articles in the water utility bill insert.	1. Annually distribute information about stormwater issues in the water utility bill insert to 80% of the City's customers	Environmental Services Department, Environmental Quality Division	Years 1 – 5

The City exceeded the goals for this Year 1 BMP.

BMP 1.8 Activities Completed

12/31/2014

Pipeline Articles

The City distributed stormwater related articles with the water utility bill. Fifteen (15) Pipeline articles contained information on household hazardous waste issues and events, two (2) contained information on how to properly handle grass clippings, one (1) reminded residents to "Don't Clog the Drain - Keep Grease from the Drain", one (1) included information on a stormwater friendly gardening class being offered by the City, and four (4) articles included information on the master composter classes offered by the City.

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
1.9 Multimedia Stormwater Public Education (TMDL)	Promote watershed awareness for citizens, City staff, and visitors using multiple types of media, including a website, City’s cable channel, and Facebook.	1. Have stormwater quality public service announcement on GPTV at least once per year	Environmental Services Department, Environmental Quality Division	Years 1 – 5
		2. Post stormwater quality message on Facebook at least twice per year		Years 2 – 5
		3. Provide and maintain Stormwater Pollution Prevention information on the City's website		Years 1 – 5
		4. Show stormwater related video during new employee orientation		Years 2 – 5

The City exceeded the goals for this Year 1 BMP.

BMP 1.9 Activities Completed

07/25/2014

Stormwater Post on Facebook

The Environmental Quality Division posted a stormwater related message on Facebook that explained how stormwater runoff enters storm drains and discharges, untreated, into our creeks, rivers, and lakes.

12/31/2014

Stormwater PSAs on GPTV

The City airs the following stormwater pollution prevention PSA videos on GPTV once a day, seven days a week: Doo the Right Thing, Fats, Oils, & Grease, Detergents, Yard Waste, Paints, and Fertilizers.

12/05/2013

New Employee Orientation

Presented "Preventing Storm Water Pollution: What We Can Do" video to seventeen (17) new City employees during New Employee Orientation.

08/13/2013

Stormwater Information on Website

The Environmental Quality Division maintains stormwater educational material for the Environmental Quality website. This information is updated as needed and includes pages for the following topics: Stormwater, What are Watersheds?, Pet Waste, Cooking Oils, Lawn Chemicals, Volunteering, Stream Monitoring, Kids Activities, Storm Water Management Program, and Texas Stream Team. The address to this website is: www.gptx.org/EnvironmentalQuality/Stormwater.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
1.10 Tailor Outreach Programs to non-English languages (TMDL)	Ensure educational materials are translated into Spanish, as needed.	1. Provide educational materials in Spanish, when available.	Environmental Services Department, Environmental Quality Division	Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 1.10 Activities Completed

08/13/2013

Educational Materials in Spanish

The City provides residents with many stormwater educational materials in Spanish. This includes, but is not limited to, the following: Lawn Care Maintenance, Fat Free Sewers, A Guide for Auto Service, Repair and Maintenance Businesses, Steps to Obtain Construction Permits for Storm Water Discharges, Pet Waste & Water Quality, Preventing Stormwater Pollution at Construction Sites, Clean It Right, After the Storm: A Citizen's Guide to Understanding Stormwater, the AutoWatch newsletter, Clean Shop posters, and the Auto Related Business Ordinance. In addition, during each food school class conducted by the Environmental Quality Division, students are shown a Stormwater Pollution Prevention video created for restaurants. A Spanish version of the video is shown during the Spanish speaking classes.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
1.11 Stormwater Education for Visitors (TMDL)	Provide education featuring water quality issues for Grand Prairie visitors.	1. Provide information about stormwater issues on the City website	Environmental Services Department, Environmental Quality Division	Years 1-5

All activities for this BMP are complete for Year 1.

BMP 1.11 Activities Completed

08/13/2013

Stormwater Information on Website

The Environmental Quality Division maintains stormwater educational material for the Environmental Quality website. This information is updated as needed and includes pages for the following topics: Stormwater, What are Watersheds?, Pet Waste, Cooking Oils, Lawn Chemicals, Volunteering, Stream Monitoring, Kids Activities, Storm Water Management Program, and Texas Stream Team. The address to this website is: www.gptx.org/EnvironmentalQuality/Stormwater.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
1.12 Storm Drain Markers (TMDL)	Install storm drain markers “Protect Our Water, Don’t Dump” to promote awareness of the storm drain system.	1. Purchase and install 100 of the City’s unmarked storm drain curb inlets annually. Volunteers will be enlisted to help with the installation, when available	Environmental Services Department, Environmental Quality Division	Years 2 – 5

All activities for this BMP are complete for Year 1.

BMP 1.12 Activities Completed

06/25/2014

Storm Drain Marker Purchase

The Environmental Quality Division purchased 160 plastic curb markers to place on storm inlets.

12/31/2014

Storm Drain Labeling

The City, Jackson Middle School, and the Young Women's Leadership Academy placed a total of 101 storm drain markers.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
1.13 Public Education Event (TMDL)	Hold an interactive educational event that promotes stormwater BMPs.	1. Annually hold a public education event that focuses on education through involvement and promotional giveaways	Environmental Services Department, Environmental Quality Division	Years 2 – 5

The City exceeded the goals for this Year 1 BMP.

BMP 1.13 Activities Completed

04/22/2014

Earth Day Festival

The City and the 63d Regional Support Command hosted an Earth Day event for residents at the Grand Prairie Armed Forces Reserve Complex. The City distributed stormwater related educational materials, had interactive games for the attendees, and demonstrated the EnviroScape.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
1.14 Household Hazardous Waste (HHW) Collection Events (TMDL)	Encourage citizens to dispose of HHW properly by participating in City hosted events	1. Maintain contract with Forth Worth annually to allow Grand Prairie citizens to drop off HHW at the Environmental collection center	Environmental Services Department, Environmental Quality Division	Years 1– 5
		2. Annually hold at least 1 HHW collection event in Grand Prairie		Years 1– 5

The City exceeded the goals for this Year 1 BMP.

BMP 1.14 Activities Completed

12/31/2014

HHW Collection Events

The Environmental Quality Division held thirteen (13) Household Hazardous Waste events during the reporting period (Figure 2). During this time 1,500 households participated in the events and ~32,900 pounds of hazardous waste products were recycled.

Figure 2: HHW Events



12/31/2014

Contract with Fort Worth ECC

The City of Grand Prairie maintained a contract with the Fort Worth Environmental Collection Center for the proper disposal of household hazardous waste. This contract allows City of Grand Prairie residents to dispose of their household hazardous waste during the regular operating hours of the collection center. In addition, the Environmental Quality Division takes all household hazardous waste collected during HHW events to the collection center.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
1.15 Auto Related Business (ARB) and Industrial Facility Mailing List	Maintain mailing list of ARB and industrial facilities and mail out informative material.	1. Annually mail information regarding stormwater BMPs	Environmental Services Department, Environmental Quality Division	Years 1– 5

All activities for this BMP are complete for Year 1.

BMP 1.15 Activities Completed

12/31/2014

Distribution Lists

The City currently distributes the H2O Line newsletter to approximately 350 contacts via email using a maintained e-mail contact list. In addition, the Auto Watch newsletter is distributed to approximately 540 contacts using a maintained mailing list. This Auto Watch list is made up of English

and Spanish speaking contacts.

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
1.16 Annual Environmental Compliance Achievement Awards	Encourage industrial facilities to obtain industrial permit as required by the SIC code.	1. Annually recognize facilities who achieve 100% compliance	Environmental Services Department, Environmental Quality Division	Years 1– 5

All activities for this BMP are complete for Year 1.

BMP 1.16 Activities Completed

10/22/2014

Annual Compliance Awards

The City annually recognizes Grand Prairie industries achieving 100% compliance. The City held two Annual Compliance Awards meetings during this reporting period (October 10, 2013 and October 22, 2014).

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
1.17 Clean Rivers Program	Stream monitoring information is made available for review on the Clean Rivers Program website. Access to this site will be provided through the City’s website.	1. Maintain link to the Clean Rivers Program’s website on the City’s website	Environmental Services Department, Environmental Quality Division	Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 1.17 Activities Completed

08/13/2013

CRP Link on City Website

Provided link to Clean Rivers Program on the City website. The Clean Rivers Program allows the public to search for and view sampling results of the waterways in the area: www.gptx.org/EnvironmentalQuality/StreamMonitoring.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
1.18 Lawn and Garden Education for Homeowners	Efforts will be made to encourage lawn and garden low maintenance concept into existing education programs throughout the city through the purchase and distribution of educational materials and other promotions. Low maintenance garden concepts will be maintained and/or created on City properties.	1. Provide information about native and adaptive plants on the City website 2. Maintenance of Texas SmartScape™ Demonstration Garden at the Prairie Paws Adoption Center and Water Utility Operations facility	Environmental Services Department, Environmental Quality Division and Public Works	Years 1 – 5 Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 1.18 Activities Completed

12/31/2014

Native and Adaptive Information on Website

Posted information on Texas SmartScape on the City of Grand Prairie's "What is Stormwater" and "Lawn Chemicals" webpages. According to NCTCOG's user statistics, the Texas SmartScape website received 605 sessions from Grand Prairie.

12/31/2014

Maintenance of SmartScape Gardens

The Water Utilities and Prairie Paws SmartScape demonstration gardens were maintained during this reporting period.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
1.19 Don't Bag It! Program	Encourage participants to mulch grass and yard clippings as a compost instead of application of commercial fertilizers.	1. Distribute public education materials about the program at 3 venues located throughout the city 2. Provide information about the program in the water bill insert to 80% of the City's water customers	Environmental Services Department, Solid Waste Division	Years 1 – 5 Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 1.19 Activities Completed

06/15/2014

"Don't Bag It" in Pipeline

One (1) "Don't Bag It" article was printed in and distributed through the water bill insert (Pipeline).

11/30/2014

Distribution of Educational Materials

Educational materials about the Don't Bag It! program were distributed at the Development Center, Landfill, City libraries, and during the following events:

- Pumpkin Run October 2013 and October 2014
- Spring Master Composter Training April 2014
- Fall Master Composter Training September 2014
- Arbor Day Event November 2013 and November 2014
- Cinco de Mayo festival May 2014

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
1.20 H₂O Line	Produce and distribute a newsletter to selected industrial sectors and automotive related businesses featuring stormwater topics.	1. Produce and distribute a newsletter promoting pollution prevention awareness to at least 200 businesses biannually	Environmental Services Department, Environmental Quality Division	Years 1 – 5

The City exceeded the goals for this Year 1 BMP.

BMP 1.20 Activities Completed

12/31/2014

H₂O Line Distribution

City inspectors regularly distributed the H₂O Line during industrial inspections. In addition, each H₂O Line was sent to approximately 350 industrial contacts and 20 salvage yard contacts via email. The Environmental Quality Division created and distributed five (5) H₂O Line newsletters during this reporting period.

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
1.21 Auto Watch	Create and distribute a water quality and code enforcement publication featuring environmental issues specific to automotive related businesses.	1. Continue to create and distribute publication to at least 300 businesses annually	Environmental Services Department, Environmental Quality Division, Code Enforcement Division	Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 1.21 Activities Completed

07/22/2014

Auto Watch Distribution

The Auto Watch newsletter was distributed to over 300 automotive businesses during the winter and summer of 2014.

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
1.22 Educational Material for Construction Site Personnel	Provide educational materials on BMPs and erosion control for construction site personnel.	1. Distribute 200 construction BMPs and erosion control brochures at the Development Center and/or provide a link to the educational material on the City's website	Planning and Development Department and Environmental Services Department	Years 1-5

All activities for this BMP are complete for Year 1.

BMP 1.22 Activities Completed

08/13/2013

Construction Educational Material

"Steps to Obtain Construction Permits for Storm Water Discharges" brochures were distributed at two locations at the Development Center and were posted on the City's Environmental Services (www.gptx.org/EnvironmentalServices) and Engineering (<http://www.gptx.org/index.aspx?page=1296>) websites. "Preventing Stormwater Pollution at Construction Sites" brochures were available at the Development Center, on the Environmental Quality Division's Stormwater website (www.gptx.org/EnvironmentalQuality/Stormwater), and on Engineering's Construction General Permit & BMP FAQ website (<http://www.gptx.org/index.aspx?page=1296>).

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
1.23 Public Notice in Development of SWMP	Comply with federal, state, and local public notice requirements when implementing the SWMP.	<p>1. Continue to make the document available for comments on the City website, at the Environmental Services Department office, and at the Grand Prairie Memorial Library Repository</p> <p>2. Publish notice of the executive director's preliminary decision on the NOI and SWMP and adhere to 30 day public comment period</p>	Environmental Services Department, Environmental Quality Division	<p>Years 1 – 5</p> <p>Year 1</p>

All activities for this BMP are complete for Year 1.

BMP 1.23 Activities Completed

11/02/2014

SWMP Available for Review and Comment

A copy of the City's Storm Water Management Program is available for review and comments at the Environmental Quality Division's office, the City's Storm Water Management Program website (www.gptx.org/EnvironmentalQuality/SWMP), and at the Grand Prairie Memorial Library.

11/02/2014

Publish Notice

The City published a notice of the executive director's preliminary decision on the NOI and SWMP. No comments were received.

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
1.24 Texas Stream Team Volunteer Stream Monitoring Program	Involve volunteers in the stream monitoring process through Texas Stream Team.	1. Hold Texas Stream Team training sessions for volunteers or corporations, if interest exists	Environmental Services Department, Environmental Quality Division	Years 2 – 5

All activities for this BMP are complete for Year 1.

BMP 1.24 Activities Completed

08/20/2014

Texas Stream Team Training

Grady Gray, Ben Mobley and Patrick Allen completed Phase I, II and III of Texas Stream Team training. Each are now certified Texas Stream Team members.

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
1.25 Master Composter Program	Involve the public in lawn and garden compost waste training that will encourage reductions in fertilizer and pesticide use. Participants receive hands-on training and can become a Certified Master Composter.	1. Conduct 1 Master Composter class per year	Environmental Services Department, Solid Waste Division	Years 1 – 5
		2. Distribute yard care educational materials to at least 20 Master Composter participants annually		Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 1.25 Activities Completed

09/06/2014

Master Composter Class and Educational Materials

The Solid Waste Division distributed The Rodale Book of Composting, Worms Eat My Garbage, Mulching and Composting (A' Take Care of Texas' Guide), and The 'Take Care of Texas' Guide to Yard Care during this reporting period. Master Composter classes were held on April 12, 2014 (13 participants) and September 6, 2014 (10 participants).

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
1.26 Illegal Dumping Hotline (TMDL)	Encourage citizens to report violators of dumping by participating in an inter-local response to an illegal dumping hotline (see also BMP 2.10)	1. Continue to make the Illegal Dumping Hotline available on the City's Code Enforcement website	Planning and Development Department, Code Enforcement Division, Environmental Services Department, Environmental Quality Division	Years 1 – 5
		2. Maintain the Illegal Dumping Hotline link on the Environmental Services stormwater webpage		Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 1.26 Activities Completed

08/13/2013

Illegal Dumping Hotline on City's Website

Information for the City's Illegal Dumping Hotline is posted on the City's Stormwater webpage at www.gptx.org/EnvironmentalQuality/Stormwater and the Code Enforcement's website at www.gptx.org/index.aspx?page=219.

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
1.27 Stakeholder Meetings	Keep citizens and other stakeholders involved in the decision process for managing the Stormwater Management Program.	1. Hold, or participate in through NCTCOG, one stakeholder meeting per year	Environmental Services Department, Environmental Quality Division	Years 1 – 5

The City exceeded the goals for this Year 1 BMP.

BMP 1.27 Activities Completed

12/31/2014

Stakeholder Meetings

Staff from the Environmental Quality Division attended the Greater Trinity River PCB TMDL Stakeholder meetings.

08/20/2014

ARB Compliance Meeting

The Environmental Quality and Code Enforcement Divisions hosted an ARB Compliance Meeting for auto-related businesses in Grand Prairie. The City presented what ARB facilities need to do to remain in compliance with Environmental and Code regulations.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
1.28 Neighborhood Outreach Program	Program encourages the involvement of neighborhood associations for the purpose of educating them about stormwater related issues.	1. Annually coordinate a neighborhood project, such as stream/wetland cleanups, tree planting projects or awareness events	Environmental Services Department, Solid Waste Division	Years 1 – 5

The City exceeded the goals for this Year 1 BMP.

BMP 1.28 Activities Completed

10/14/2013

Bush Neighborhood Association Meeting

Keep Grand Prairie Beautiful partners with the Bush Neighborhood Association to host neighborhood cleanups and a community garden. They meet once a month to plan and discuss upcoming activities. During the meeting Keep Grand Prairie Beautiful has an opportunity to pitch cleanup projects, electronics recycling events and Compost 101 classes.

Date: 03/01/2014

Northeast Neighborhood Association Cleanup

Keep Grand Prairie Beautiful partnered with the Northeast Neighborhood Association to host a neighborhood cleanup. A local Girl Scout Troop joined in. The litter along a collector street was targeted. The City hosted a volunteer appreciation lunch and used that opportunity to discuss Adopt-A-Street and Adopt-A-Stream programs.

Date: 03/01/2014

Westchester Public Improvement District and Homeowner Association Cleanup Part 1

Keep Grand Prairie Beautiful partnered with the Westchester Public Improvement District and Homeowner's Association to host a 2-part neighborhood cleanup targeting an area near the U.S. Army Corps of Engineers property.

Date: 04/19/2014

Westchester Public Improvement District and Homeowner Association Cleanup Part 2

Keep Grand Prairie Beautiful partnered with the Westchester Public Improvement District and Homeowner's Association to host a neighborhood cleanup targeting an area near the U.S. Army Corps of Engineers property.

Date: 06/12/2014

Dalworth Neighborhood Meeting

Keep Grand Prairie Beautiful and the Dalworth Neighborhood hosted a neighborhood meeting to discuss a variety of neighborhood topics. A report was given by the Dalworth Clean & Beautiful Neighborhood sub-committee about upcoming events, including the annual back to school cleanups, an upcoming garden service project by a local church, the remodeling of the Dalworth Recreation Center, and input needed for a mural on a fence across from the Recreation Center.

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
1.29 School Outreach Programs	Partnership between the City’s Keep Grand Prairie Beautiful Program and a local school district that encourages student and campus participation.	1. Annually facilitate at least 1 activity for the campus programs	Environmental Services Department, Solid Waste Division	Years 1 – 5

The City exceeded the goals for this Year 1 BMP.

BMP 1.29 Activities Completed

09/23/2013

2013-2014 Green & Clean Campus Program Kick-Off Event

Keep Grand Prairie Beautiful partners with the Grand Prairie Independent School District (GPISD) to host the Green & Clean Campus Program (GCCP) which encourages environmental education and stewardship opportunities for the faculty, staff, students and families at each participating campus. On September 23, 2013, KGPB and GPISD kicked off the 2013-2014 GCCP. During this event, the City conducted an overview of the program, including our litter prevention and cleanup programs, and campuses that wished to participate in the program signed a commitment form. All 39 schools signed the commitment form.

10/15/2013

2013-2014 Clean Campus Meeting

KGPB and GPISD hosted a “Clean” Meeting on October 15, 2013, which was a gathering of the school representatives who chose to work on the litter prevention, cleanup, recycling and water quality portions of the Green & Clean Campus.

12/17/2013

Green & Clean Campus Meeting

KGPB partnered with the GPISD to host a GCCP meeting on December 17, 2013, at the DeZavala Environmental Science Academy.

7/31/2014

Jackson Middle School EarthForce Rain Garden Filtration Project

KGPB partnered with Jackson Middle School’s EarthForce team to install a rain garden filtration project on their campus.

10/07/2014

GPISD STEM Coordinator Meeting and Planning Session at the Grand Prairie Landfill

The Solid Waste and Recycling Division partnered with the GPISD Science Technology Engineering and Math (STEM) administrators and coordinators to further the goal of integrating STEM study opportunities at the Grand Prairie Landfill. Solid Waste Manager, Dr. Patricia Redfearn, conducted an orientation to the Grand Prairie Landfill and led them on a tour of the working face, the convenience area, the constructed wetland research project and the new waste-to-energy project.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
1.30 Advisory Committees or Task Force Groups	Share information and help develop stormwater programs by participating in stormwater related committees or task force groups through NCTCOG.	1. Sit on at least one stormwater committee or task force group annually.	Environmental Services Department, Environmental Quality Division	Years 1 – 5

The City exceeded the goals for this Year 1 BMP.

BMP 1.30 Activities Completed

12/31/2014

Committees or Task Force Groups

Staff from the Environmental Quality Division were members of the following task force groups, committees, and councils during the reporting period: Greater Trinity River Bacteria TMDL Project Coordination Committee, Public Education Task Force, Illicit Discharge Detection and Elimination Task Force, Pollution Prevention Task Force, and Regional Stormwater Management Coordination Council.

MCM 2: Illicit Discharge Detection and Elimination

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
2.1 Maintain a GIS Database of the MS4 (TMDL)	Maintain an updated map of the locations of all outfalls and the names of all receiving US surface waters.	1. Maintain current drainage system map, including outfalls, using asbuilts, aerial images, and/or through field verification	Environmental Services Department, Environmental Quality Division and Information Technology Department, GIS Division	Year 1 – 5

All activities for this BMP are complete for Year 1.

BMP 2.1 Activities Completed

12/31/2014

Drainage System Map Maintenance

The outfall map with receiving US Waters is continuously reviewed and updated primarily using Engineering asbuilts and then error-corrected using orthographic photos (aerials). Differences noted in the field are reported and print corrected.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
2.2 Priority Areas (TMDL)	Identify priority areas within the city likely to have an illicit discharge.	1. Determine and document the basis for the selection of priority areas. Identify and list areas	Environmental Services Department, Environmental Quality Division	Year 2
		2. Map priority areas		Year 2

There are no required activities listed for this BMP for Year 1.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
2.3 Dry Weather Field Screening (TMDL)	Develop and implement a program to detect and address non-stormwater discharges, including illegal dumping, into the storm sewer system.	1. Develop and implement revised dry weather field screening program	Environmental Services Department, Environmental Quality Division	Year 2
		2. Conduct dry weather screening of 1/3 of priority areas as identified in BMP 2.2		Years 3-5

The City exceeded this BMP for this reporting period.

BMP 2.3 Activities Completed

12/31/2014

Screening of Outfalls

The City contracted Alan Plummer Associates Inc. to inspect outfalls within Grand Prairie. 254 outfalls within 500 feet of a waterbody and 36" or greater were inspected during this reporting period. The majority of discharges detected were due to nearby irrigation.

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
2.4 Complaint Database (TMDL)	A database is kept of all citizen complaints regarding illicit discharges.	1. Maintain the complaint database	Environmental Services Department	Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 2.4 Activities Completed

08/13/2013

Garrison

The Environmental Quality Division uses Garrison, a Web based database, to track all citizen complaints regarding stormwater.

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
2.5 Complaint Response (TMDL)	All citizen complaints are to be investigated.	1. Maintain a response of 80% within 5 days	Environmental Services Department	Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 2.5 Activities Completed

12/31/2014

Investigate Complaints

The Environmental Quality Division investigated well over 80% of residential complaints within five (5) working days. The average response time for complaints was one (1) day. Sixteen (16) spills and ten (10) SSOs were investigated and resolved during this reporting period.

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
2.6 Illicit Discharge and Spill Procedures (TMDL)	Develop and maintain procedures for responding to illicit discharges and spills.	1. Maintain standard operating procedures for responding to spills	Environmental Services Department, Environmental Quality Division	Years 1 – 5

2. Develop and maintain standard operating procedures for responding to illicit discharges

Years 2 – 5

All activities for this BMP are complete for Year 1.

BMP 2.6 Activities Completed

08/13/2013

Spill Response SOPs

The City maintained standard operating procedures for the following types of spills: diesel or oil, hazardous materials for transportation incidents, hazardous materials for general materials incidents, hazardous materials for small spills, spill reporting guidelines, gas padsite fracturing fluids, gas padsite chemical spills, and passenger vehicle fires and fluid spills.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
2.7 Source Investigation and Elimination (TMDL)	Identify and locate the source of illicit discharges and/or spills. Require responsible parties to perform all necessary corrective actions to eliminate the illicit discharge and/or spill.	1. Conduct source investigations to identify and locate illicit discharges as soon as practicable	Environmental Services Department, Environmental Quality Division	Years 1 – 5
		2. Report to the TCEQ all illicit discharges/spills believed to be an immediate threat to human health or the environment		Years 1 – 5
		3. Document the date the discharge was observed, results of the investigation, follow-up investigation details, and the date the investigation was closed		Years 1 – 5

4. Notify the responsible party and require the responsible party to take all corrective actions necessary	Years 1 – 5
5. Notify adjacent permitted MS4 operator or the TCEQ if an illicit discharge/spill extends outside of Grand Prairie’s boundary	Years 1 – 5
6. Perform dry weather field screening during follow-up investigation to ensure discharge has been eliminated	Years 2 – 5

All activities for this BMP are complete for Year 1.

BMP 2.7 Activities Completed

08/13/2013

Illicit Discharge/Spill Response

The City investigates all illicit discharges and spills that are identified through stream monitoring, complaints, dry weather field screening, or by any other means, as soon as practicable. The source of the illicit discharge or spill is determined through investigation procedures such as screening for the pollutant upstream or up the storm drain line, taking field and /or lab samples to narrow the source possibilities, researching facilities upstream/up the storm drain line to determine their possible role in the discharge/spill, searching the area on foot or in a vehicle to spot the source, and/or any other method necessary. Once the source is identified, and if it is determined there is a responsible party, Environmental Specialists enforce the City ordinances restricting improper discharges of pollutants. The City ensures that illicit discharges/spills are properly remedied, either by the responsible party or, if no party can be identified, through the use of a City contractor. The City reports all discharges/spills to the TCEQ if the discharge/spill is believed to be an immediate threat to human health or the environment. The City also documents all details of the incident into Garrison (response database). If the discharge/spill reaches or is expected to reach a neighboring MS4, the City will notify the operator of that MS4.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
2.8 Spill Response (TMDL)	Coordinate with the Fire Department on emergency spill response, using a private contractor for clean-up and remediation.	1. Continue response and training	Environmental Services Department	Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 2.8 Activities Completed

08/13/2013

TAS Environmental Services

The City maintains a contract with TAS Environmental Services for spill response.

8/13/2013

Spill Response and Training

Environmental Specialists from the Environmental Quality Division respond to spills, sanitary sewer overflows, and other environmental hazards 24 hours a day, 365 days a year. Specialists are continuously educated through emergency responders meetings and through peer to peer training.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
2.9 Building Project Review Process (TMDL)	Environmental Specialist reviews and inspects for any illicit connections or water quality hazards during the building project review process.	1. Continue to review at least 80% of new commercial construction plans for water quality hazards 2. Continue to inspect at least 80% of Certificates of Occupancy that have a potential to impact stormwater	Environmental Services Department, Environmental Quality Division	Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 2.9 Activities Completed

12/31/2014

Certificate of Occupancy Inspections and Building

Date: 12/31/2014

Stream Sampling

The Environmental Quality Division has voluntarily conducted stream sampling since 1986. Currently, 23 stream sites are sampled on a monthly, quarterly, and annual basis. The data collected during these monitoring events are used to detect and eliminate illicit discharges or other threats to human and environmental health. Atypical results are identified and researched. All possible attempts are made to mitigate any atypical results. In addition, stream monitoring data are provided to the Clean Rivers Program for water quality monitoring, assessment, and public outreach.

A monthly summary of the stream sampling data collected during this reporting period is attached in Appendix C. This BMP is highly effective at reducing pollutants to the MEP. Over the many years of implementing this program, numerous atypical results have led to the mitigation of illicit discharges, SSOs, or spills. Two areas of concern were identified during this reporting period. Table 2 is a summary of these atypical results.

Table 2: Atypical Stream Sampling Results

Date	Location	Parameter	Value	Summary
Ongoing	Site 19 – Mountain Creek @ Singleton Blvd.	Ammonia Nitrogen	> 1.0 ppm	Ammonia nitrogen has been high at this location sporadically for over a year. E. coli has also been high at this location. Discussions with the Trinity River Authority (TRA) are ongoing, as this sampling location is adjacent to the TRA property. A determination of the cause of the high ammonia nitrogen has not been reached.
Ongoing	Site 15 – Fish Creek @ Beltline in Dallas	Dissolved Oxygen	<4.0 ppm	A large amount of brush has impeded the flow of the creek at this sampling location causing dissolved oxygen to decrease. However, ammonia nitrogen remains within an acceptable range. The brush has also caused a large amount of trash and debris to accumulate. The City of Grand Prairie has discussed the need for cleanup at this location with the City of Dallas.

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
2.12 Sanitary Sewer Overflow Response Plan (TMDL)	Follow the plan created and implemented for the response of Water Utilities and Environmental Services to SSOs. ESD’s response ensures the protection of the waterways through professional advice and field testing.	1. Maintain the plan for Water Utilities and Environmental Services to respond to SSOs	Environmental Services Department, Public Works Department, Water Utilities Division	Years 1 – 5

All activities for this BMP are complete for Year 1

BMP 2.12 Activities Completed

08/13/2013

Standard Operating Procedure

The City's Water Utility and Environmental Quality Divisions respond to all sanitary sewer overflows by following a Standard Operating Procedure. Water Utility's responsibilities include, but are not limited to, cleaning, containing, and recovering sewage, and clearing, repairing, and/or replacing pipeline failures. Environmental Quality Division's responsibilities include, but are not limited to, noting visual observations and sampling for ammonia nitrogen in receiving waterbodies (if applicable). Water Utility and Environmental Quality work together to determine the cause of the overflow and the appropriate clean up response.

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
2.13 Illicit Discharge Awareness Campaign for Businesses and General Public (TMDL)	Inform businesses and the general public of hazards associated with illegal discharges and improper disposal of waste.	1. Educate the general public and 25% of potential polluting businesses annually through the use of brochures, videos, or other methods	Environmental Services Department, Environmental Quality Division	Year 2 – 5

The target dates for this BMP is for Years 2-5, however, the City completed this BMP in Year 1 as well.

BMP 2.13 Activities Completed

12/31/2014

Educational Brochures, Newsletters, and Posters

Stormwater educational materials addressing illicit discharges were distributed throughout this reporting period. This includes, but is not limited to, the following: An Industry's Guide for Protecting Grand Prairie's Watershed, Lawn Care Maintenance, Fat Free Sewers, A Guide for Auto Service, Repair and Maintenance Businesses, Preventing Stormwater Pollution at Construction Sites, Clean It Right, After the Storm: A Citizen's Guide to Understanding Stormwater, the AutoWatch newsletter, the Auto Related Business Ordinance, and the H2O Line. Environmental Specialists also distributed "7 Ways to Keep a Clean Shop" posters to Auto Related Businesses. The posters illustrated best management practices for these facilities and were available in English and Spanish.

07/25/2014

Stormwater Pollution Prevention on Facebook

The Environmental Quality Division posted a stormwater related message on Facebook that explained how stormwater runoff enters storm drains and discharges, untreated, into our creeks, rivers, and lakes.

12/31/2014

Stormwater PSAs on GPTV

The City airs the following stormwater pollution prevention PSA videos on GPTV once a day, seven days a week: Doo the Right Thing, Fats, Oils,

& Grease, Detergents, Yard Waste, Paints, and Fertilizers.

12/31/2014

Stormwater Pollution Prevention Video for Restaurants

During each food school class conducted by the Environmental Quality Division, students were shown a Stormwater Pollution Prevention video created for restaurants. English and Spanish videos were shown.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
2.14 Educating and Training City Field Staff (TMDL)	Ensure City staff that may come into contact with or otherwise observe an illicit discharge or illicit connection has the proper education and training (see also BMP 5.7).	1. Determine effective means of disseminating IDDE training video to field staff	Environmental Services Department, Environmental Quality Division	Year 2
		2. Disseminate IDDE training video to field staff and keep materials and attendance lists at the Environmental Quality Division office		Year 3
		3. Create and provide vehicle card or decal with contact information in the event staff observes an illicit discharge		Year 3
		4. Purchase and distribute IDDE posters for display in applicable facility buildings		Year 3

There are no goals for this BMP for Year 1.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
2.15 Stormwater Ordinance (TMDL)	Review the stormwater ordinance for necessary revisions and update as needed. The ordinance effectively prohibits non-stormwater discharges into the storm sewer system and implements enforcement procedures and actions. The ordinance also includes a description of local controls and conditions established for common and incidental non-stormwater discharges not considered illicit.	<ol style="list-style-type: none"> 1. Review the stormwater ordinance for necessary revisions 2. If revisions are needed, update the stormwater ordinance and prepare for Council approval 3. If revised, implement revised ordinance 	Environmental Services Department, Environmental Quality Division	<p>Year 2</p> <p>Year 3</p> <p>Years 4 – 5</p>

There are no goals for this BMP for Year 1.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
2.16 Litter Collection Program (TMDL)	Keeping the major thoroughfares clean and free of litter will reduce the amount of floatables that reach water ways. A contractor is employed to clear litter from these roadways.	1. Remove litter from major thoroughfares weekly	Environmental Services Department, Solid Waste Division	Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 2.16 Activities Completed

12/31/2014

Litter Collection

The Litter Crew collected 129.98 tons of litter during this reporting period.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
2.17 Illegal Dumping Clean-Up (TMDL)	Cleaning up debris in a timely fashion reduces the amount of illegal dumping. The City investigates all illegal dumping and ensures the removal of debris.	1. Continue efforts to remove all illegally dumped debris at least 30 days from the day the violation was reported	Planning and Development Department, Code Enforcement Division	Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 2.17 Activities Completed

12/31/2014

Illegal Dumping Response

The City responded to 123 illegal dumping complaints during this reporting period. Complaints included illegally dumped brush, trash, tires, furniture, hazardous waste, etc. Once on site, City staff cleaned up the debris or required the property owner or responsible party to do so. Citations and warnings were issued as necessary. Illegally dumped debris was usually removed within a week of receiving the complaint (it was always removed within 30 days).

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
2.18 Beach Sampling Program (TMDL)	Help reduce health risk to the visitors of Joe Pool Lake swim beaches by minimizing the public’s exposure to diseases in the water.	1. Follow an SOP for beach sampling once a month during the summer or swimming months	Environmental Services Department, Environmental Quality Division	Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 2.18 Activities Completed

09/30/2014

Beach Sampling SOP and results

The beach sampling standard operation procedure is followed during sampling events.

This BMP is effective at reducing pollutants to the MEP. If high levels of E. coli are observed, attempts are made to determine and mitigate the source of the high levels.

In all but one month, beach sampling results for this reporting period did not exceed recommended E. coli values. During May 2014, a high single sample was collected at Loyd Park Middle. Since the May 2014 results at Loyd Park Middle were particularly high, without any assignable cause, it was resampled in early June. A decrease was observed at this location in June, July, and August of 2014. See Table 3 for results.

Table 3: Results for Loyd Park and Lynn Creek Beach Sampling

Beach Sampling August 2013 to September 2014 E. Coli MPN/100 ml								
Month	Loyd Park West	Loyd Park Middle	Loyd Park East	Geo Mean	Lynn Creek West	Lynn Creek Middle	Lynn Creek East	Geo Mean
Aug 2013	4	4	2	3.2	24	2	2	4.6
Sept 2013	34	43	34	36.6	125	90	39	75.7
May 2014	111	420	104	169	13	17	40	21
June 2014	80	34	32	44	35	47	30	37
July 2014	10	10	8	9	111	89	35	70
Aug 2014	5	1	4	3	2	6	8	5
Sept 2014	4	10	10	7	17	31	14	20

1. Results that are less than reportable limits are conservatively treated as at detection limits (i.e. <4 is 4)
2. For contact recreation, the recommended limits for the geometric mean is 126 MPN /100 mL and the single sample criterion is 399 MPN/100 mL
3. June and July results are reflective of the summer vacation for schools. Lynn Creek is free to enter for Grand Prairie residents, resulting in greater contact recreation activities then at Loyd Park.
4. Since the results in Loyd Park were particularly high in May 2014, without any assignable cause, it was resampled early in June. A decrease was observed at this location in June, July, and August of 2014.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
2.19 On Site Sewage System Permitting (TMDL)	On site sewage systems are regulated through an ordinance and permitted by the City. Failing septic systems are identified and abated.	1. Maintain the permitting of sewage systems 2. Respond to onsite sewage systems within 10 days of receiving complaint and enforce as necessary	Environmental Services Department, Environmental Quality Division	Years 1 – 5 Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 2.19 Activities Completed

12/05/2014

Complaints and Enforcement

One (1) complaint was received in Year 1. An NOV was issued for this complaint.

06/09/2014

Permitted OSSFs

Two (2) OSSFs were permitted in Year 1.

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
2.20 Auto Inspection Program (TMDL)	Inspect auto-related businesses for water quality issues on an annual basis.	1. Inspect at least 75% of auto-related businesses annually	Environmental Services Department, Environmental Quality Division	Years 1 – 5

The City exceeded the goals for this Year 1 BMP.

BMP 2.20 Activities Completed

12/31/2014

ARB Inspections

The Environmental Quality Division inspected 100% of the auto-related businesses in Grand Prairie in during this reporting period. Inspectors ensured ARBs were in compliance with local, state, and federal stormwater regulations.

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
2.21 Grease Trap Pumping (TMDL)	In order to reduce the number of illicit discharges, ensure grease traps are being pumped as required.	1. Run report in LINKO to ensure frequency of pumping requirements are met	Environmental Services Department, Environmental Quality Division	Years 3-5

There were no required activities for Year 1 for this BMP.

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
2.22 Horse Stables (TMDL)	Ensure private horse stables are maintained properly so that sources of bacteria are reduced.	1. Create inspection form	Environmental Services Department,	Year 2

	2. Perform annual inspections of private horse stables and ensure good housekeeping practices are implemented	Environmental Quality Division, Animal Services Division, Planning and Development Department, Code Enforcement Division	Years 3-5
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There were no required activities for Year 1 for this BMP.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
2.23 Sanitary Sewer Systems (TMDL)	Ensure sanitary sewers are functioning properly in order to reduce overflows.	1. Make improvements to sanitary sewers and lift stations, as needed	Environmental Services Department, Environmental Quality Division, Public Works Department, Water Utilities Division	Years 1-5
		2. Ensure reporting of overflows is in compliance with state requirements		Years 1-5
		3. Update the Certificate of Occupancy SOP for food manufacturers and restaurants		Year 4

All activities for this BMP are complete for Year 1.

BMP 2.23 Activities Completed

12/31/2014

Sanitary Sewer and Lift Station Improvements and Overflow Reporting

Improvements were made to sanitary sewer systems and lift stations, as needed. Sewer overflows were reported as required by the State.

MCM 3: Construction Site Stormwater Runoff Control

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
3.1 Review Construction Plans and Designs	Require designers to include erosion and sediment control measures with approved BMPs in plans and specifications in all projects in accordance with the TPDES Construction General Permit and all local and State regulations.	1. Require erosion and sediment control plans including BMP details in engineering plan submittals	Planning and Development Department, Engineering Division	Years 1 – 5
		2. Add program to document training for sediment and erosion control plan reviewers		Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 3.1 Activities Completed

12/31/2014

Add Program to Document Training

During this reporting period, documentation of training was created via a spreadsheet. In addition, a training program was developed and will be implemented throughout the course of this permit

12/31/2014

Require Erosion & Sediment Control Submittals

Engineering requires designers to submit drainage and erosion control plans to the City prior to any construction activity being performed within the City boundaries. In the reviewing process, engineering can determine the effectiveness of the drainage and erosion control measures and make any necessary comments to have the plan changed or modified to meet potential concerns. During this reporting period, a total of 80 Construction Plans and Designs were submitted and reviewed for erosion and sediment controls

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
3.2 Earthwork Permit	Issue earthwork permit to grade, grub, clear, fill, or any other form of earth disturbing activity as necessary, to minimize the discharge of pollutants that may impact neighboring properties.	1. Review current earthwork permit to amend, modify, or change to reflect any new requirements if needed	Planning and Development Department, Engineering Division	Year 1

All activities for this BMP are complete for Year 1.

BMP 3.2 Activities Completed

12/31/2014

Issue Earthwork Permits

Permits are issued to owners and operators based on the grading and erosion control plans submitted and accepted by the City. The Engineering Department issued a total of 113 earthwork permits during this reporting period.

12/31/2014

Review Current Earthwork Permit

The current Earthwork Permit was reviewed and modifications were done to reflect a new cost for the permit based on revisions made to the supporting UDC codes. All other portions on the permit stayed the same.

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
3.3 Construction Site Inspection and Enforcement Program	Assess and revise as needed the current inspection program. Review current staffing and training capabilities and adjust accordingly to comply with the new MS4 General Permit and to the extent allowable by state, federal, and local law. Compliance with the Stormwater Ordinance will be ensured by the use of non-monetary penalties, citations, permit denial, stop work orders, and holding of Certificate of Occupancy until full compliance has been achieved. Inspect construction sites to determine the condition and effectiveness of the required control measures that have been selected, installed, implemented and maintained in accordance with Federal, State, and Local requirements.	1. Revise and implement, as necessary, written procedures outlining the inspection, enforcement, and staffing requirements	Planning and Development Department, Engineering Division	Year 1
		2. Complete training of all departmental construction site inspectors. Initiate a program to formally train new inspectors by the end of their first year of their inspection assignment		Years 2 – 3

Conduct construction site inspections, document observed violations, and provide follow-up inspections within 7 days of the notice of violation, ensuring enforcement of permit provisions

Years 3 – 5

All activities for this BMP are complete for Year 1.

BMP 3.3 Activities Completed

12/31/2014

Construction Site Inspection & Enforcement

Previous email warning system used to identify non-compliance was reviewed and modified to reflect the names of those receiving the notifications. The Engineering inspection group will still follow the processes for identifying non-compliant construction activities.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
3.4 Construction Ordinance	Review current Stormwater Construction Ordinance and Unified Development Code. Revise, modify, and implement as needed to meet the requirements as described in the Small MS4 General Permit.	1. Conduct review of Stormwater Ordinance and Unified Development Code to evaluate if sediment and erosion control requirements address Small MS4 General Permit requirements	Planning and Development Department, Engineering Division	Years 1 – 2
		2. Finalize Ordinance and UDC Article 14 revisions, if applicable		Year 3

All activities for this BMP are complete for Year 1.

BMP 3.4 Activities Completed

12/31/2014

Conduct Review of Stormwater Ordinance and UDC

City staff began reviewing the Stormwater Ordinance and UDC codes that apply to this permit. Once the ordinance and UDC are completely reviewed and accepted by City staff, they will go before Council for final approval.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
3.5 Public Input for Stormwater Construction Activity	Implement a program for receiving calls or input regarding sediment, erosion, and/or other construction related activities, routing calls to appropriate personnel for proper response, documenting subject of call for future analysis, and training of staff to follow reporting and response procedures.	<ol style="list-style-type: none"> 1. Revise and implement, as necessary, written procedures for receiving input, responding to input, and documenting input 2. Train staff on reporting and response procedures 3. Implement procedures 	Planning and Development Department	Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 3.5 Activities Completed

12/31/2014

Public Input for Stormwater Construction Activity

The Planning and Development Department has in place a Standard Procedure for Drainage and Erosion Control Complaints. This procedure requires designated individuals to register the complaint, locate the area of concern, take the necessary steps to bring the area back into compliance and inform the complainant of the resolution. Complaint response provides the citizens an active role and sense of responsibility in monitoring their community.

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
3.6 Construction Site Inventory	Develop and maintain a list or inventory of all permitted active construction sites that result in a total land disturbance of one acre or more or that result in a total land disturbance of less than one acre if part of a larger common plan of development or sale that results in a total land disturbance of one acre or more.	<ol style="list-style-type: none"> 1. Develop procedures to develop and maintain an inventory of applicable construction sites 2. Retain the construction site inventory so an active inventory can be made available to TCEQ upon request 	Planning and Development Department, Engineering Division	Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 3.6 Activities Completed

12/31/2014

Construction Site Inventory

In accordance with the City of Grand Prairie Unified Development Code 14, the owner/operator of a construction site must provide the City a copy of the SWP3, NOI and/or Construction Site Notice. During this reporting period, a total of 59 Construction site activities were inventoried and documented. 55 of the construction sites were non-municipal sites (Table 4).

Table 4: Non-Municipal Construction Sites

<i>Number of Non-Municipal Construction Sites Within Jurisdiction of Permittee</i>
55

MCM 4: Post-Construction Management in New Development and Redevelopment

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
4.1 Review New Site Development and Redevelopment Plans	Require designers of new site development and redevelopments to include water quality considerations and proposed approved BMPs. Any and all amendments to the site plan review procedures shall be in accordance to the Stormwater Ordinance and post construction	1. Review water quality considerations and proposed approved BMPs in engineering plan submittals	Planning and Development Department, Engineering Division	Years 1 – 5

operation and maintenance requirements.

All activities for this BMP are complete for Year 1.

BMP 4.1 Activities Completed

12/31/2014

Review New Site Development and Redevelopment Plan

During this reporting period the engineering department reviewed 213 new development plan submittals.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
4.2 Stormwater Policies for Development and Redevelopment in the Unified Development Code and Stormwater Ordinances	Re-evaluate and revise the current Unified Development Code and/or Stormwater Ordinances as needed to include requirements and revisions to support water quality objectives and post construction BMP maintenance initiatives.	1. Review, evaluate and revise current Unified Development Code and/or Stormwater Ordinances and make recommendations, as needed	Planning and Development Department	Years 1 – 2

All activities for this BMP are complete for Year 1.

BMP 4.2 Activities Completed

12/31/2014

Policies for Development & Redevelopment in the UDC

In this review period, the Engineering Department began reviewing all Unified Development Codes (UDC) as well as the Drainage Design Manual (DDM) sections that pertain to the new development and redevelopment processes. Expected completion of this review and modification process is expected in 2015.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
4.3 Inspections of Post-Construction Control Measures	Identify, inventory, and inspect post-construction stormwater controls (i.e., detention/retention pond facilities) for City and privately owned properties. Document the results of the inspections including follow-up and/or enforcement actions, as applicable.	1. Review and update inspection program as necessary to ensure inspectors are trained, facility inspections are documented in an inspection report, and identified issues are resolved with follow-up and/or enforcement action taken to confirm resolution. Retain documentation of follow-up and/or enforcement actions to be made available to TCEQ upon request	Planning and Development Department	Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 4.3 Activities Completed

12/31/2014

Inspections of Post Construction Control Measures

The City contracted a 3rd Party consultant firm to identify, inventory and inspect post construction stormwater controls (i.e., detention/retention pond facilities). During this reporting period the inspection group recorded 149 detention/retention pond facilities. Additionally, Stormceptors were installed on Lynn Creek Parkway as part of a CIP project. We installed 6-900 gallon units and one 2400 gallon unit.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
4.4 Long Term Operation and Maintenance of BMPs	For City owned or operated structural control facilities and privately owned structural control facilities required by the Unified Development Code and/or Stormwater Ordinances, the City will either maintain the structural controls or require a maintenance plan to be filed in real property records of the county by the private entity. For privately owned structural control facilities, the City will evaluate if the structural control facilities are maintained and operated as intended.	1. Maintain City owned or operated structural control facilities, as needed, to maintain their function, and document the maintenance activities. Review water quality protection considerations in maintenance plans required to be filed in the real property records by the Unified Development Code and/or Stormwater Ordinances	Planning and Development Department, Engineering Division	Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 4.4 Activities Completed

12/31/2014

Long Term Operation and Maintenance of BMPs

The Engineering Division reviews water quality protection considerations in maintenance plans and also requires that these plans be filed in the real property records through the City's Operation and Maintenance Agreement. During this reporting year 9 facilities were under the O & M Agreement and filed in the real property records.

MCM 5: Pollution Prevention/Good Housekeeping for Municipal Operations

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
5.1 Storm Sewer System Operation and Maintenance for the City of Grand Prairie (TMDL)	Implement an O&M program to reduce pollutants in the MS4. Conduct maintenance along the inlets, ditches, pipes, and channels for structural improvements when noted through citizen complaints and through field observations.	1. Maintain a computer maintenance and management system to track maintenance and complaint responses	Public Works Department, Streets Division	Years 1 – 5

	2. Respond to 80% of citizen complaints and input information into City Works Management System	Years 1 – 5
	3. Track storm sewer and drainage maintenance through City Works Management System	Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 5.1 Activities Completed

12/31/2014

Complaint and Maintenance Response and Tracking

The City used the City Works Management System to track complaints and maintenance activities. During this reporting period, the City responded to 85 complaints and/or maintenance needs.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
5.2 Disposal of Waste Removed from the MS4 for the City of Grand Prairie (TMDL)	Maintain standard operating procedure for the disposal of waste removed from the MS4.	1. Maintain SOP for waste disposal	Environmental Services, Environmental Quality and Solid Waste Division	Years 1 – 5
		2. Ensure compliance with 30 TAC Chapters 330 and 335		Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 5.2 Activities Completed

08/13/2013

SOP for Waste Removal

The City maintained a Standard Operating Procedure for the disposal of waste removed from the MS4. The SOP defines the responsibilities of Streets Division personnel for clearing and disposing of waste collected from the MS4.

8/13/2013

30 TAC Chapters 330 and 335

The City’s Municipal Solid Waste (MSW) facility receives waste in accordance with their Site Operating Plan, which is located in MSW permit number 996C, Attachment 14. The City’s Garbage collection and disposal ordinance (Article VI) also contains provisions that outline citizens’ responsibility in the waste collection process.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
5.3 Storm Sewer and Drainage Maintenance Program for the Dallas County Flood Control District #1 (excluding the City of Grand Prairie – see BMP 5.1) (TMDL)	Conduct maintenance and improvements for the drainage components owned by the Dallas County Flood Control District #1 when noted through written complaints and through field observations.	1. Respond to written complaints within the District	Dallas County Flood Control District #1	Years 1 – 5
		2. Perform annual maintenance reviews and prepare report		Years 1 – 5
		3. Make necessary repairs to District facilities		Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 5.3 Activities Completed

12/31/2014

Complaints, Reviews, and Repairs

No written complaints were filed in year 1. The annual maintenance review was conducted in February and March 2014, and the report was prepared in August 2014. There are no known necessary repairs to District facilities in Grand Prairie at this time.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
5.4 Disposal of Waste Removed from the MS4 for the Dallas County Flood Control District #1 (excluding the City of Grand Prairie – see BMP 5.2) (TMDL)	Maintain a standard operating procedure for the disposal of waste removed from the Dallas County Flood Control District #1’s stormwater system.	1. Maintain a SOP for waste disposal	Dallas County Flood Control District #1	Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 5.4 Activities Completed

08/13/2013

DCFCD SOP for Waste Disposal

The DCFCD developed a standard operating procedure (SOP) for waste removed from the storm water system in 2009 as a measurable goal for the 2008 TPDES General Permit TXR040000. The 2009 SOP remains current. It includes an introduction, purpose, district general response capabilities, and procedures for clearing and collecting debris from the MS4.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
5.5 List Potential Problem Areas for Inspection (TMDL)	Develop a list of potential problem areas, then identify and prioritize areas for increased inspection (i.e. illegal dumping).	1. Develop a list of potential problem areas	Planning and Development Department, Code Enforcement Division	Year 2
		2. Identify and prioritize problem areas for increased inspection		Year 3-5

There are no required activities for this BMP for Year 1.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
5.6 Street Operation and Maintenance (TMDL)	Remove solid pollutants from the streets to avoid contamination of the storm sewer system and dispose of properly to avoid reentry into the MS4.	1. Sweep business district, thoroughfares and some public parking lots on an annual basis and more often on high traffic roads	Environmental Services Department, Solid Waste Division	Years 1 – 5

<p>2. For paved areas outside of the sweeping program, the City will focus implementation of other trash and litter control procedures or provide inlet protection measures</p>	<p>Years 1 – 5</p>
<p>3. The City will require that all non-prohibited materials be disposed of at a Type I landfill</p>	<p>Years 1 – 5</p>

All activities for this BMP are complete for Year 1.

BMP 5.6 Activities Completed

12/31/2014

Street Sweeping

Flagship Services and Mr. Dirt collected 262.35 tons during street sweeping operations for this reporting period.

12/31/2014

Additional Trash and Litter Control Measures

The litter crew is a five crew team that picks up litter from the City right of way all over the City of Grand Prairie. They do this full-time 5 days a week. They also change out trash receptacles that have been set out at some major intersections.

08/13/2013

Type I Landfill

The code of ordinances, Article VI- Garbage Collection and Disposal, Sec. 26-101(a) states that: “All municipal solid waste generated within the City of Grand Prairie not prohibited by law for disposal in Grand Prairies Type I landfill shall be transported to the landfill for proper disposal.” All materials collected within city limits are disposed of at the Grand Prairie Municipal Landfill.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
5.7 Educating and Training City Field Staff (TMDL)	Inform or train appropriate employees involved in implementing pollution prevention and good housekeeping practices (see also BMP 2.14).	1. Determine effective means of disseminating stormwater training video to field staff	Environmental Services Department, Environmental Quality Division	Year 2
		2. Disseminate stormwater training video to field staff and keep materials and attendance lists at the Environmental Quality Division office		Year 3
		3. Create and provide vehicle card or decal with contact information in the event staff observes an illicit discharge		Year 3
		4. Purchase and distribute IDDE posters for display in applicable facility buildings		Year 3

There are no required activities for this BMP for Year 1.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
5.8 Stormwater Management Program Data Tracking	Track all City activities related to the Stormwater Management Program through a data tracking program. Software will be used to assist with the tracking.	1. Purchase and use software	Environmental Services Department, Environmental Quality Division	Year 1
		2. Create annual report		Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 5.8 Activities Completed

12/31/2014

MS4 Web Software

The City purchased "MS4 Web Software" from CBI Systems and is using this software to track MS4 activities and create annual reports.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
5.9 Contractor Compliance	Ensure contractors performing maintenance on City facilities meet program requirements and are provided oversight.	1. Create a contract for contractors hired by the City whose work has the potential to discharge pollutants into the MS4	Planning and Development Department	Year 3
		2. Contractually require contractors to comply with stormwater controls, good housekeeping practices, and facility specific stormwater management procedures		Year 4
		3. Develop oversight procedures to ensure contractors are using appropriate control measures and SOPs		Year 5

There are no required activities for this BMP for Year 1.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
5.10 Pollution Prevention for City Operation and Maintenance (O&M) Activities	Develop pollution prevention measures for City O&M activities. Perform inspections to ensure measures are working properly.	1. Determine and list City O&M activities that have the potential to discharge pollutants into the MS4	Environmental Services Department, Environmental Quality Division	Year 2

	2. Identify and list possible pollutants of concern from aforementioned O&M activities	Year 2
	3. Develop and implement pollution prevention measures for the O&M activities	Year 3
	4. Annually inspect pollution prevention measures and keep a log of inspections	Years 4 – 5

There are no required activities for this BMP for Year 1.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
5.11 Structural Control Maintenance	Ensure proper maintenance of structural controls on City owned facilities.	1. Annually inspect structural controls and maintain as needed to ensure effectiveness	Environmental Services Department, Public Works Department, Parks and Recreation Department	Years 4 – 5

There are no required activities for this BMP for Year 1.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
5.12 Mapping Facilities	Identify the locations of City owned and operated facilities and stormwater controls.	1. Determine locations of City owned and operated facilities and stormwater controls	Environmental Services Department, Environmental Quality Division	Year 2
		2. Map locations in GIS		Year 3

There are no required activities for this BMP for Year 1.

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
5.13 Mosquito Management Program	Maintain mosquito management methods that will not result in illicit discharges to the MS4.	1. Maintain integrated mosquito management methods when handling and applying pesticides	Environmental Services Department, Environmental Quality Division	Years 1 – 5
		2. Use low toxicity bio-controls for larvae control		Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 5.13 Activities Completed

12/31/2014

Bio-Controls

The City used Altosid, Gambusia affinis fish, and BTi Briquettes for managing the mosquito population during this reporting period. Altosid XR ((S)-Methoprene), EPA registration No. 2724-375, is a larviciding agent that interferes with the ability of mosquito larvae to become adults, but does not kill them. Altosid has a toxicity category of “Caution”. Gambusia affinis fish were used in bodies of water with mosquito breeding problems. This biological control provides an abatement program directed primarily toward the prevention, elimination, or control of mosquitoes capable of disease transmission. BTi Briquettes (mosquito dunks) were also used. BTi Briquettes are biological larvicides containing Bacillus thuringiensis israelensis, which kills only mosquito larvae (EPA registration No. 6218-47) and has a toxicity category of “Caution”.

12/31/2014

Integrated Mosquito Management

The Environmental Quality Division's mosquito control plan is based on comprehensive Integrated Pest Management which includes, but is not limited to, mosquito and disease surveillance, source reduction, complaint investigations, public education, biological control (mosquito fish production), larval and adult mosquito control, and insecticide resistance management.

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
5.14 Facility Inventory	Develop and maintain a facility and stormwater control inventory for City owned and operated facilities.	1. Develop a list of City facilities that have the potential to discharge pollutants into the MS4	Environmental Services Department, Public Works Department, Parks and Recreation Department	Year 2

	2. Develop a list of stormwater controls for each facility	Year 3
	3. Include applicable permit numbers, registration numbers, and authorizations for each facility or control	Year 3

There are no required activities for this BMP for Year 1.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
5.15 Facility Assessment	Identify high priority facilities and document results.	1. Review facilities identified in BMP 5.14 for potential to discharge pollutants into stormwater	Environmental Services Department, Public Works Department, Parks and Recreation Department	Year 4
		2. Identify high priority facilities, including City maintenance yards and fuel storage locations. Use checklist during assessment		Year 4
		3. Document results. Maintain copies of site evaluation checklists and any identified deficiencies and corrective actions taken		Year 4

There are no required activities for this BMP for Year 1.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
5.16 Facility Specific SOPs	Develop facility specific stormwater management SOPs to minimize discharge of pollutants into stormwater.	1) Develop SOP, or maintain equivalent existing plan, for each facility identified in BMP 5.15. SOP or plan will identify BMPs to be installed, implemented, and maintained	Environmental Services Department, Public Works Department, Parks and Recreation Department	Year 5
		2) Update the plan and make available for review by the TCEQ		Year 5

There are no required activities for this BMP for Year 1.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
5.17 Stormwater Controls for High Priority Facilities	Implement specific stormwater controls at high priority facilities identified in BMP 5.15.	1) Include in SOPs (BMP 5.16) stormwater controls for 1) good housekeeping, 2) de-icing and anti-icing material storage, 3) fueling operations and vehicle maintenance, and 4) equipment and vehicle washing	Environmental Services Department, Public Works Department, Parks and Recreation Department	Year 5

There are no activities listed for this BMP for Year 1.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
5.18 Inspect City Facilities	Inspect high priority City facilities identified in BMP 5.15 for Best Management Practices.	1. Create inspection form for City facilities	Environmental Services Department, Environmental Quality	Year 4

	2. Inspect high priority facilities identified in BMP 5.15 annually	Division	Years 4 – 5
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There are no required activities for this BMP for Year 1.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
5.19 Pesticide, Herbicide, and Fertilizer Application and Management	Evaluate landscape and pesticide management for City owned and operated areas and ensure proper management techniques are being implemented in order to decrease pollutants to the MS4.	1. Evaluate materials used and activities performed for pollution prevention opportunities	Environmental Services Department, Environmental Quality Division	Year 3
		2. Educate pesticide, fertilizer, and herbicide applicators and distributors on proper management techniques and ensure necessary certifications and permits are obtained		Years 2 – 5
		3. Maintain SmartScape gardens at Water Utilities and Prairie Paws facilities		Years 1 – 5
		4. When applicable, include chemical application schedule in landscape and pesticide contracts to minimize discharges of pollutants due to irrigation or expected precipitation		Years 4 – 5

5. Properly collect and dispose of unused pesticide, herbicide, and fertilizer

Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 5.19 Activities Completed

12/31/2014

Maintenance of SmartScape Gardens

The Water Utilities and Prairie Paws SmartScape demonstration gardens were maintained during this reporting period.

12/31/2014

Collection and Disposal of Unused Pesticide, Herbicide, and Fertilizer

Unused pesticide, herbicide, and fertilizer is collected and disposed of properly. Prime Pest, the City's pest control contractor, takes back any unused product. In addition, the City purchases herbicide and fertilizer in small quantities and uses all of the material. This allows for minimal disposal needs, if any.

MCM 6: Industrial Stormwater Sources

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
6.1 Stormwater Industrial Inspection Program	Require that facilities comply with any NPDES or TPDES stormwater permit applicable under the SIC code.	1. Continue to provide 75% of industries the applications for coverage, when applicable 2. Enforce failure to apply for or obtain permit coverage	Environmental Services Department, Environmental Quality Division	Years 1 – 5 Years 1 – 5

3. Perform inspections once every 3 years to ensure compliance with the stormwater permit and to ensure control measures for discharges are met

Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 6.1 Activities Completed

12/31/2014

Applications, Enforcement and Inspections

100% of industries were provided applications for NPDES or TPDES coverage, when applicable. Notice of Violations and/or citations were given to facilities that failed to apply for or obtain stormwater coverage. Inspections of industrial facilities are performed at least once every 3 years.

<i>BMP</i>	<i>BMP Description</i>	<i>Measurable Goals</i>	<i>Responsibility</i>	<i>Target Date</i>
6.2 Existing SWP3s	Three existing SWP3s are maintained for the Airport, the Landfill, and the Service Center, as required by the general permit TXR05000.	1. Ensure compliance with, maintain, and update SWP3s for the permits at the three existing regulated facilities	Environmental Services Department, Environmental Quality Division	Years 1 – 5
		2. Review the SWP3s annually for any changes required		Years 1 – 5
		3. Inspect all three sites annually		Years 1 – 5
		4. Ensure that required annual SWP3 training is conducted		Years 1 – 5

All activities for this BMP are complete for Year 1.

BMP 6.2 Activities Completed

07/14/2013

Quarterly Visual Inspections

The three City facilities regulated by the general permit TXR05000 are the Municipal Airport, Landfill, and Service Center. In addition to the inspections performed at these facilities for the purpose of maintaining and updating their corresponding SWPPPs, outfalls at each facility are monitored during qualifying rainfall events on a quarterly basis. The Service Center was monitored on 10/16/13, 1/10/14, 4/23/14, 7/30/14 and 11/22/14. The Airport was monitored on 10/15/13, 1/10/14, 4/21/14, 7/17/14 and 11/4/14. The Landfill was monitored on 9/19/13, 10/16/13, 3/31/14, 4/21/14, 8/18/14 and 10/16/14.

12/09/2014

Annual Inspections

Annual comprehensive compliance inspections were conducted for each MSGP City facility. The Airport was inspected on 11/22/13 and 11/20/14, the Landfill was inspected on 11/20/13 and 12/5/14, Equipment Services was inspected on 11/21/13 and 12/4/14 and the Service Center, Fleet Services was inspected on 11/21/13 and 12/4/14.

12/18/2014

Training for City MSGP Sites

The Spill Prevention Control and Countermeasure (SPCC) Plan developed for the landfill was discussed with twenty (20) employees by the Landfill Manager on 3/6/14.

Fifty-six (56) Service Center personnel viewed *Stormwater BMP's for Construction*, a COG municipal employee training video, on 9/24/14. Fifty-eight (58) Service Center personnel watched *Preventing Stormwater Pollution*, a COG Training Video, on 9/20/13. Five (5) Airport staff viewed *Reduce Runoff: Slow It Down, Spread it Out, Soak It In*, an EPA educational video, on 8/11/14. Twenty-six (26) landfill personnel also viewed the video on 12/18/14.

08/12/2013

SWPPP Updates

The site map of all the three facilities were updated with the 2013 aerial maps in GIS in March 2014. The airport map was updated with the location of a new control tower. The past spill locations were marked in the landfill map. The Service Center map was updated with Outfall 4 and Outfall 5 locations.

Part VII. 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 305.128 to sign and submit this document, and can provide documentation in proof of such authorization upon request.

City of Grand Prairie

Signature: _____

Printed Name: _____

Title: _____

Date: _____

Dallas County Flood Control District #1

Signature: _____

Printed Name: _____

Title: _____

Date: _____

APPENDIX A: Interlocal Agreement

STATE OF TEXAS)
COUNTY OF DALLAS)

INTERLOCAL AGREEMENT BETWEEN CITY OF GRAND PRAIRIE
AND THE DALLAS COUNTY FLOOD CONTROL DISTRICT #1
CONCERNING JOINT SUBMISSION OF THE STORM WATER MANAGEMENT
PROGRAM

This agreement is between the City of Grand Prairie, by and through its duly authorized City Manager, and the Dallas County Flood Control District #1, by and through its President. It is an Interlocal Agreement between two political subdivisions within the State of Texas, authorized in Chapter 791 of the Texas Government Code, and concerning an item of mutual interest and importance. This Interlocal Agreement for the joint submission of a Storm Water Management Program to satisfy the requirements of the permit application to the Texas Commission on Environmental Quality (TCEQ) for compliance with Texas Pollutant Discharge Elimination System (TPDES) General Permit No. TXR040000 relating to storm water discharges associated with small municipal separate storm sewer systems is made and entered into by and between the City of Grand Prairie, Texas (hereafter referred to as the “**CITY**”), and the Dallas County Flood Control District #1 (hereafter referred to as the “**DISTRICT**”).

WHEREAS, the **CITY** and the **DISTRICT** mutually desire to enter into an **AGREEMENT** to partner with each other in the joint submission of a Storm Water Management Program to the TCEQ for compliance with Phase II requirements; and

WHEREAS, the parties recognize the joint benefits in the joint submission of a Storm Water Management Program; and

NOW, THEREFORE, FOR AND IN CONSIDERATION OF THE MUTUAL COVENANTS SET OUT HEREIN, the City of Grand Prairie and the Dallas County Flood Control District #1 agree as follows:

1. The **CITY** and the **DISTRICT** agree to a joint submission of a Storm Water Management Program to the TCEQ in compliance with Phase II requirements.
2. The **CITY** and the **DISTRICT** agree that services related to the inspection and maintenance of **DISTRICT** owned storm water systems within the **DISTRICT** boundaries, as noted in Attachment 1, will continue to be the financial responsibility of the **DISTRICT**.
3. The **CITY** and the **DISTRICT** agree that the **CITY** will perform all of the required portions of the Storm Water Management Program in regards to: the minimum control measures within the City of Grand Prairie including within the limits of the **DISTRICT**, with the exception of MCM 5.1 and MCM 5.2, as denoted in the Storm Water

Management Program. The **DISTRICT's** specific responsibilities are defined in MCM 5.3 and MCM 5.4, as shown in Attachment 2, relating to the maintenance of drainage components and disposal of waste removed from the MS4, as denoted in the Storm Water Management Program.

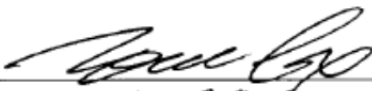
4. The **CITY** and the **DISTRICT** agree that the **DISTRICT** will provide detailed information on **DISTRICT** activities within the **DISTRICT** boundaries in the City of Grand Prairie to the **CITY** by February 1 of each year for the next five (5) years, in an electronic format so that the **CITY** may complete its annual report to the TCEQ.

5. The parties represent by the execution of this document that they have authority to act, and that the appropriate body has taken action to approve this contract.

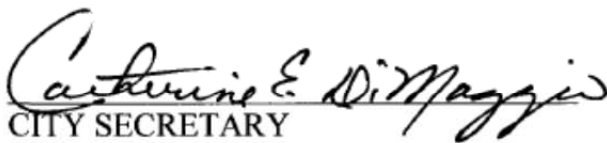
6. Neither party intends by entry into this agreement to waive any immunity that it might have in the performance of its governmental duties.

Executed on this 9th day of May, 2014.

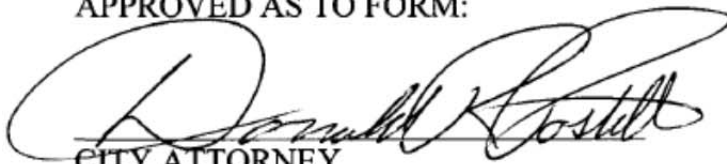
CITY OF GRAND PRAIRIE

by: 
Printed Name: TOM COY
Title: DEPUTY CITY MANAGER

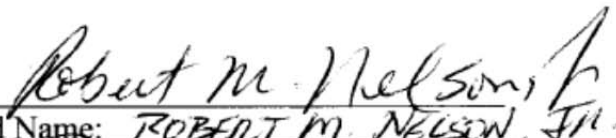
ATTEST:


CITY SECRETARY

APPROVED AS TO FORM:


CITY ATTORNEY

DALLAS COUNTY FLOOD CONTROL DISTRICT #1

by: 
Printed Name: ROBERT M. NELSON, III.
Title: PRESIDENT

ATTEST:

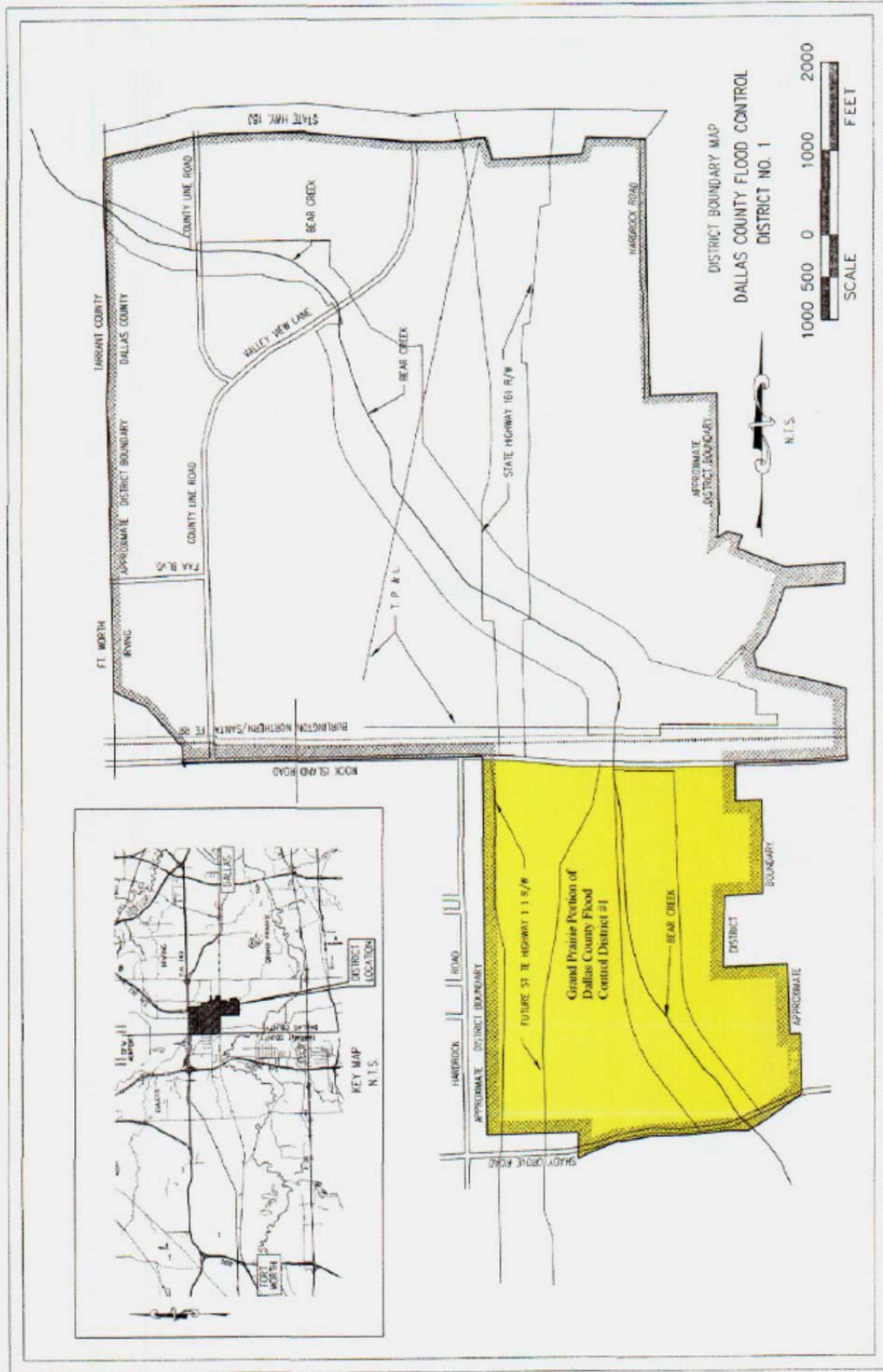
by: Charles H. Bent

APPROVED AS TO FORM:

[Signature]

ATTORNEY FOR THE DALLAS COUNTY FLOOD CONTROL DISTRICT #1

ATTACHMENT 1



ATTACHMENT 2

BMP	BMP Description	Measurable Goals	Responsibility	Target Date
5.1 Storm Sewer System Operation and Maintenance for the City of Grand Prairie	Implement an O&M program to reduce pollutants in the MS4. Conduct maintenance along the inlets, ditches, pipes, and channels for structural improvements when noted through citizen complaints and through field observations.	1. Implement a computer maintenance and management system to track maintenance and complaint responses. 2. Respond to 80% of citizen complaints and input information into City Works Management System	Public Works Department, Streets Division	Years 1 – 5
5.2 Disposal of Waste Removed from the MS4 for the City of Grand Prairie	Maintain standard operating procedure for the disposal of waste removed from the MS4.	3. Track storm sewer and drainage maintenance through City Works Management System 1. Maintain SOP for waste disposal	Environmental Services, Environmental Quality and Solid Waste Division	Years 1 – 5

		2. Ensure compliance with TAC Chapters 330 and 335		Years 1 – 5
<p>5.3 Storm Sewer and Drainage Maintenance Program for the Dallas County Flood Control District #1 (excluding the City of Grand Prairie – see MCM 5.1)</p>	<p>Conduct maintenance and improvements for the drainage components owned by the Dallas County Flood Control District #1 when noted through written complaints and through field observations.</p>	1. Respond to written complaints within the District	Dallas County Flood Control District #1	Years 1 – 5
		2. Perform annual maintenance reviews and prepare report		Years 1 – 5
		3. Make necessary repairs to District facilities		Years 1 – 5
<p>5.4 Disposal of Waste Removed from the MS4 for the Dallas County Flood Control District #1 (excluding the City of Grand Prairie – see MCM 5.2)</p>	<p>Maintain a standard operating procedure for the disposal of waste removed from the Dallas County Flood Control District #1's stormwater system.</p>	1. Maintain a SOP for waste disposal	Dallas County Flood Control District #1	Years 1 – 5

APPENDIX B: Rock Island Annexation

AN ORDINANCE OF THE CITY OF GRAND PRAIRIE, TEXAS, ANNEXING INTO THE CITY OF GRAND PRAIRIE, TEXAS A TRACT OF LAND IN THE JOHN C. READY SURVEY, ABSTRACT NO. 1183, THE LORENZO BENNETT SURVEY, ABSTRACT NO. 1697 AND THE JOHN HARDIN SURVEY, ABSTRACT NO. 540 IN DALLAS COUNTY, TEXAS, BEING A PART OF THE MUNICIPAL BOUNDARY DESCRIBED IN THE CITY OF IRVING CHARTER, AS APPROVED BY THE VOTERS OCTOBER 25, 1952, BEING A PART OF THAT TRACT OF LAND COMMONLY KNOWN AS THE "TRINITY RAILWAY EXPRESS" (FORMERLY KNOWN AS THE CHICAGO, ROCK ISLAND AND PACIFIC RAILROAD COMPANY TRACT) (A VARIABLE WIDTH RIGHT-OF-WAY), AND BEING DESCRIBED IN DEED WITHOUT WARRANTY TO THE DALLAS AREA RAPID TRANSIT AND THE FORT WORTH TRANSPORTATION AUTHORITY, AS RECORDED IN VOLUME 9925, PAGE 3713, IN THE DEED RECORDS OF DALLAS COUNTY, TEXAS, BEING ALL OF THE PROPERTY PLATTED AS LIGGETT SUBSTATION/STORE, AN ADDITION TO THE CITY OF IRVING, DALLAS COUNTY, TEXAS, AS RECORDED IN VOLUME 2001248, PAGE 7 IN THE MAP RECORDS OF DALLAS COUNTY, TEXAS, AS HEREINAFTER MORE FULLY DESCRIBED; WHICH SAID ANNEXED TERRITORY LIES ADJACENT TO AND ADJOINS THE PRESENT CORPORATE BOUNDARY LIMITS OF THE CITY OF GRAND PRAIRIE, TEXAS; PROVIDING THAT THE ANNEXED TERRITORY SHALL BEAR ITS PRO RATE PART OF TAXES; PROVIDING THAT FUTURE INHABITANTS OF THE ANNEXED TERRITORY SHALL HAVE ALL THE PRIVILEGES OF ALL THE CITIZENS OF GRAND PRAIRIE, TEXAS; PROVIDING THAT THIS ORDINANCE SHALL AMEND EVERY PRIOR ORDINANCE IN CONFLICT HEREWITH; PROVIDING THAT THIS ORDINANCE SHALL BE CUMULATIVE OF ALL PRIOR ORDINANCES NOT IN DIRECT CONFLICT; PROVIDING FOR SEVERABILITY; AND NAMING AN EFFECTIVE DATE.

WHEREAS, the City of Irving ("Irving") is a home city situated within the County of Dallas, State of Texas; and

WHEREAS, the City of Grand Prairie ("Grand Prairie") is a home rule city situated within the Counties of Tarrant, Dallas, and Ellis, State of Texas; and

WHEREAS, the hereinafter described territory subject to annexation is adjacent to and within the extraterritorial jurisdiction and municipal limits of both the Grand Prairie and Irving under the terms of the Municipal Annexation Act of the State of Texas; and

WHEREAS, portions of the hereinafter described territory include remainder fragments of land, for which a service plan is unnecessary, of privately owned tracts of land previously annexed into Grand Prairie for which a service plan was prepared and approved; and

WHEREAS, portions of the hereinafter described territory also include the right-of-way of Rock Island Road, currently maintained by Dallas County, of which Dallas County seeks to

relinquish all claim and responsibility, excluded the Bear Creek Bridge which shall stay under the ownership and control of Dallas County; and

WHEREAS, Grand Prairie and Irving desire to establish a mutual municipal boundary line and hereto forth Grand Prairie shall de-annex and relinquish all claim to property lying north of the mutual boundary line and annex all property lying south of the mutual boundary line and Irving shall de-annex and relinquish all claim to the property lying south of the mutual boundary line and annex all property lying north of the mutual boundary line, and

WHEREAS, a public hearing before the City Council of Grand Prairie, wherein all interested persons were provided an opportunity to be heard on the proposed annexation of territory hereinafter described, was held in the City Council Chambers in the City Hall of Grand Prairie, on September 17, 2013; and

WHEREAS, a second public hearing before the City Council of Grand Prairie, wherein all interested persons were provided an opportunity to be heard on the proposed annexation of territory hereinafter described, was held in the City Council Chambers in the City Hall of Grand Prairie, on October 15, 2013; and

WHEREAS, notice of the first such public hearing was published in a newspaper having a general circulation in the Grand Prairie, and in the hereinafter described territory, on the September 5, 2013, which date was not more than twenty (20) days nor less than ten (10) days prior to the date of said public hearing; and

WHEREAS, notice of the second such public hearing was published in a newspaper having a general circulation in the Grand Prairie, and in the hereinafter described territory, on the October 3, 2013, which date was not more than twenty (20) days nor less than ten (10) days prior to the date of said public hearing; and

WHEREAS, prior to the posting and publication of the notices of public hearing, a Service Plan providing for the extension of municipal services into the hereinafter described territory was prepared for inspection by and explanation to the inhabitants of the area to be annexed; and

WHEREAS, the population of Grand Prairie, is in excess of 100,000 inhabitants; and

WHEREAS, the hereinafter described territory lies adjacent to and adjoins Grand Prairie.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF GRAND PRAIRIE, TEXAS:

SECTION 1

That the following described land and territory lying adjacent to and adjoining Grand Prairie is hereby added to and annexed to Grand Prairie, and said territory hereinafter described shall hereafter be included within the boundary limits of Grand Prairie, and the present corporate

boundary of said City, at the various points contiguous to the area hereafter described, are altered and amended so as to include said area within the corporate limits of Grand Prairie, to wit:

BEING a tract of land in the John C. Read Survey, Abstract No. 1183, the Lorenzo Bennett Survey, Abstract No. 1697 and the John Hardin Survey, Abstract No. 540 in Dallas County, Texas, being a part of the Municipal Boundary described in the City of Irving Charter, as approved by the voters October 25, 1952, being a part of that tract of land commonly known as the "Trinity Railway Express" (formerly known as the Chicago, Rock Island and Pacific Railroad Company tract) (a variable width right-of-way), and being described in Deed Without Warranty to the Dallas Area Rapid Transit and the Fort Worth Transportation Authority, as recorded in Volume 9925, Page 3713, in the Deed Records of Dallas County, Texas, being all of the property platted as Liggett Substation/Store, an addition to the City of Irving, Dallas County, Texas, as recorded in Volume 2001248, Page 7 in the Map Records of Dallas County, Texas, and being more particularly described as follows:

BEGINNING at a point in the Dallas County, west boundary line, said point being a distance of 75 feet south of the centerline of the original railroad track of the Chicago, Rock Island and Pacific Railroad as per information provided by The City of Irving and being in the present city limit line of the City of Irving, Texas, as defined by City of Irving Ordinance No. 3843, as affected by City of Irving Ordinance No. 3970;

THENCE in an easterly direction, 75 feet from and parallel with the centerline of the original railroad track of the Chicago, Rock Island and Pacific Railroad as per information provided by The City of Irving, a distance of 12,035 feet more or less to a point for corner;

THENCE in a southerly direction, passing the southwest corner of the bridge over Dry Branch at a distance of 62 feet more or less and continuing for a total distance of 67 feet more or less to the south right-of-way line of Rock Island Road being in the present city limit line of Grand Prairie, Texas, as defined by City of Grand Prairie Ordinance No. 1912;

THENCE in a westerly direction, along the south right-of way line of Rock Island Road and the present city of Grand Prairie city limit line a distance of 5870 feet more or less to a point for corner;

THENCE in a northerly direction, passing the southeast corner of the bridge over Bear Creek at a distance of 3.5 feet more or less and continuing for a distance of 33 feet more or less to the northeast corner of the bridge over Bear Creek;

THENCE in a westerly direction, along the north face of the bridge over Bear Creek a distance of 185.5 feet more or less to the northwest corner of the bridge over Bear Creek;

THENCE in a southerly direction, passing the southwest corner of the bridge over Bear Creek at a distance of 30 feet more or less and continuing for a total distance of 32 feet more or less to the south right-of-way line of Rock Island Road being in the present city limit line of Grand Prairie, Texas, as defined by City of Grand Prairie Ordinance No. 1912;

THENCE in a westerly direction, along the south right-of way line of Rock Island Road and the present city of Grand Prairie city limit line to a point in the easterly line of a tract of land owned by the Texas Power and Light Company and commonly referred to as the Liggett Power Sub-Station;

THENCE in a southerly direction, along the present city of Grand Prairie city limit line and along the east boundary line of said Texas Power and Light Company tract to its southeast corner;

THENCE in a westerly direction, along the present city of Grand Prairie city limit line and along the south boundary line of said Texas Power and Light Company tract to its southwest corner;

THENCE in a northerly direction, along the present city of Grand Prairie city limit line and along the west boundary line of said Texas Power and Light Company tract to the south right-of-way line of Rock Island Road;

THENCE in a westerly direction, along the present city of Grand Prairie city limit line and along the south right-of-way line of Rock Island Road to a point in the Dallas County, west boundary line.;

THENCE in a northerly direction, along said Dallas County west boundary line to the POINT OF BEGINNING AND CONTAINING 53.2 acres of land, more or less;

“This document was prepared under 22TAC 663.21, does not reflect the results of an on the ground survey, and is not to be used to convey or establish interests in real property except those rights and interests implied or established by the creation or reconfiguration of the boundary of the political subdivision for which it was prepared.”

SECTION 2

Irving shall deannex the following described land and territory, to wit:

BEING a tract of land in the John C. Read Survey, Abstract No. 1183 in Dallas County, Texas, being a part of the Municipal Boundary described in the City of Irving Charter, as approved by the voters October 25, 1952, being a part of that tract of land commonly known as the "Trinity Railway Express" (formerly known as the Chicago, Rock Island and Pacific Railroad Company tract) (a variable width right-of-way), and being described in Deed Without Warranty to the Dallas Area Rapid Transit and the Fort Worth Transportation Authority, as recorded in Volume 9925, Page 3713, in the Deed Records of Dallas County, Texas, being all of the property platted as Liggett Substation/Store, an addition to the city of Irving, Dallas County, Texas as recorded in Volume 2001248, Page 7 in the Map Records of Dallas County, Texas, and being more particularly described as follows:

COMMENCING at a point in the Dallas County, west boundary line, said point being a distance of 75 feet south of the centerline of the original railroad track of the Chicago, Rock Island and Pacific Railroad as per information provided by The City of Irving and being in the present

city limit line of the City of Irving, Texas, as defined by City of Irving Ordinance No. 3843, as affected by City of Irving Ordinance No. 3970;

THENCE in an easterly direction, 75 feet from and parallel with the centerline of the original railroad track of the Chicago, Rock Island and Pacific Railroad as per information provided by The City of Irving and being in the present city limit line of the City of Irving, Texas, a distance of 2,620 feet more or less to the POINT OF BEGINNING, being the northeast corner of Tract 2, as defined by said City of Irving Ordinance No. 3970;

THENCE continuing in an easterly direction, 75 feet from and parallel with the centerline of the original railroad track of the Chicago, Rock Island and Pacific Railroad as per information provided by The City of Irving, a distance of 1,054.5 feet more or less to a point for the northwest corner of Tract 1, as defined by City of Irving Ordinance No. 3843;

THENCE in a southerly direction, along the present City of Irving city limit line, passing the northeast corner of said Liggett Substation, and an ell corner of the present City of Grand Prairie city limit line as defined by City of Grand Prairie Ordinance No. 1912 and the southwest corner of said Tract 1 at a distance of 50 feet more or less and continuing for a total distance of 1,322 feet more or less to the southeast corner of said Liggett Substation;

THENCE in a westerly direction along the present City of Irving city limit line as defined by said City of Irving Charter, the present City of Grand Prairie city limit line as defined by said Ordinance 1912 and along the south line of said Liggett Substation, a distance of 1,054.5 feet more or less to a point for corner;

THENCE in a northerly direction passing an ell corner of the present City of Grand Prairie city limit line as defined by City of Grand Prairie Ordinance No. 1912, the southeast corner of said Tract 2 and the northwest corner of said Liggett Substation at a distance of 1,298 feet more or less and continuing for a total distance of 1348 feet more or less to the POINT OF BEGINNING AND CONTAINING 32.0 acres of land, more or less;

“This document was prepared under 22TAC 663.21, does not reflect the results of an on the ground survey, and is not to be used to convey or establish interests in real property except those rights and interests implied or established by the creation or reconfiguration of the boundary of the political subdivision for which it was prepared.”

SECTION 3

That the above described territory is shown on the attached map marked Exhibit “A”, which map is expressly incorporated herein for the purpose of illustrating and depicting the location of the above-described property.

SECTION 4

The this ordinance shall and does amend every prior ordinance in conflict herewith, but as to all other ordinances or section of ordinances not in direct conflict, this ordinance shall be, and the same is hereby made cumulative.

SECTION 5

That it is hereby declared to be the intent of the City Council that the sections, paragraphs, sentences, clauses, and phrases of this ordinance are severable, and if any phrase, clause, sentence, paragraph, or section of this ordinance shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs, and sections of this ordinance, since the same would have been enacted by the City Council without the incorporation in this ordinance of any unconstitutional phrase, clause, sentence, paragraph, or section.

SECTION 6

That this ordinance shall be in full force and effect from and after the date of its passage by the City Council, and it is so ordained.

PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF GRAND PRAIRIE, TEXAS, ON THIS THE 15th DAY OF OCTOBER, 2013.

Ordinance No. 9621-2013

Case No. A-07-13

APPENDIX C: Monthly Stream Summary

Stream Sampling Results: 8/13/2013 to 12/31/2014

Site Number	Date	Air Temperature	Water Temperature	pH	Turbidity	Dissolved Oxygen	Ammonia	E coli
8	8/20/2013	34	28.7	7.5	2.78	5.35	0.28	135
9	8/20/2013	24	24.3	7.75	3.1	6.86	0.15	62
11	8/20/2013	34	28.3	7.64	8.74	4.29	0.39	96
12	8/20/2013	32	27.5	7.56	2.15	8.17	0.29	192
15	8/20/2013	31	28.1	7.72	16	4.65	0.35	204
17	8/20/2013	32	27.1	8	15.1	7.4	0.28	4
18	8/20/2013	35	30.6	8.27	30.4	7.74	0.29	10
19	8/20/2013	36	28.6	8.01	15.7	8.79	1.28	372
20	8/20/2013	29	25.7	7.78	6.48	4.14	0.38	15
20	8/20/2013	29	25.7	7.78	6.48	4.14	0.38	17
22	8/20/2013	27	27	7.61	4.66	5.23	0.31	75
25	8/20/2013	25	24.7	8.05	2.75	7.85	0.25	229
26	8/20/2013	27	23.9	8.1	1.47	8.54	0.22	120
27	8/20/2013	28	23.3	7.64	4.33	6.04	0.35	870
28	8/20/2013	28	23.5	8.11	6.35	8.81	0.26	323
29	8/20/2013	31	25.7	7.7	11.7	8.17	0.29	145
3	8/21/2013	28	28.2	7.5	13.3	7.2	0.28	102
5	8/21/2013	27	25.9	7.35	2.28	5.01	0.15	66
6	8/21/2013	28	28.7	7.49	22.1	6.45	0.35	145
7	8/21/2013	26	23.9	7.26	2.06	6.9	0.24	582
23	8/21/2013	29	27	7.58	6.21	7.21	0.23	52
24	8/21/2013	28	27	7.04	5.6	7.28	0.39	2
24	8/21/2013	28	27	7.04	5.6	7.28	0.39	2
9	9/24/2013	21	21.5	7.86	9.61	7.86	0.23	870
11	9/24/2013	31	25.9	7.63	4.09	6.06	0.4	409
12	9/24/2013	31	23.8	7.33	3.38	4.72	0.37	413

Stream Sampling Results: 8/13/2013 to 12/31/2014

Site Number	Date	Air Temperature	Water Temperature	pH	Turbidity	Dissolved Oxygen	Ammonia	E coli
15	9/24/2013	30	24.7	7.26	16.6	3.55	0.4	449
17	9/24/2013	28	26.8	7.94	37.8	6.97	0.16	119
19	9/24/2013	33	26.3	7.54	190	4.56	1.87	1095
20	9/24/2013	27	25.1	8.15	4.97	7.28	0.25	17
22	9/24/2013	32	25.4	7.74	4.8	5.97	0.37	413
25	9/24/2013	22	25.2	7.39	2.82	4.98	0.13	94
26	9/24/2013	23	22.2	7.78	1.57	8.35	0.19	104
27	9/24/2013	25	22.4	7.5	0.61	6.55	0.26	108
28	9/24/2013	24	22.5	7.53	6.25	7.15	0.14	413
29	9/24/2013	25	26.1	7.52	5.8	7.09	0.15	582
3	9/25/2013	24	23.5	7.67	18.7	7.61	0.07	252
5	9/25/2013	20	22.5	7.8	11.4	6.15	0.29	651
6	9/25/2013	23	25.3	7.52	14.3	6.96	0.14	449
7	9/25/2013	20	20.5	7.64	2.04	8.36	0.12	22
8	9/25/2013	25	24.1	7.25	4.86	5.84	0.26	120
18	9/25/2013	25	23.4	8.05	48.6	7.53	0.06	102
23	9/25/2013	23	22.4	7.57	9.17	7.33	0.21	159
24	9/25/2013	22	23.1	7.29	4.48	6.06		345
8	10/30/2013	21	22.1	7.75	3.41	6.4	0.03	187
9	10/30/2013	22	21	8.45	40.2	7.93	0.06	479
10	10/30/2013	21	21.1	7.95	7.17	6.45	0.11	288
11	10/30/2013	21	21.1	7.95	7.17	6.45	0.11	288
12	10/30/2013	22	20.3	7.63	6.68	5.23	0.08	977
15	10/30/2013	23	20.4	7.7	15	4.19	0.15	240
17	10/30/2013	22	20.7	8.21	20.9	7.52	0.06	118
18	10/30/2013	22	20.3	8.3	86.3	8.83	0.01	430

Stream Sampling Results: 8/13/2013 to 12/31/2014

Site Number	Date	Air Temperature	Water Temperature	pH	Turbidity	Dissolved Oxygen	Ammonia	E coli
19	10/30/2013	22	20	7.71	242	3.92	1.21	9678
20	10/30/2013	23	21.1	8.23	9.19	7.67	0.06	26
22	10/30/2013	21	21.2	7.75	8.24	5.8	0.1	821
25	10/30/2013	22	20.6	7.92	2.82	6.44	0.04	278
26	10/30/2013	23	20.2	7.89	5.17	7.74	0.05	922
27	10/30/2013	23	20.9	8.04	4.12	7.7	0.08	1298
28	10/30/2013	22	20.9	7.85	4.08	7.38	0.05	372
29	10/30/2013	23	21.1	7.86	6.56	7.29	0.08	84
30	10/30/2013	23	20.9	8.02	195	6.91	0.07	165
31	10/30/2013	23	20.6	7.88	6.65	5.61	0.1	977
3	10/31/2013	23	20.5	7.61	15.8	7.65	0.18	334
5	10/31/2013	23	20.6	7.56	4.18	6.51	0.11	1733
6	10/31/2013	23	22.1	7.58	20.1	7.34	0.18	192
7	10/31/2013	22	20.6	7.35	5.64	7.12	0.19	288
23	10/31/2013	23	20.4	8.01	14.1	7.49	0.24	345
24	10/31/2013	23	20.1	7.46	4.97	6.75	0.36	219
8	11/19/2013	20	15.8	7.37	5.56	7.3	0.16	60
9	11/19/2013	16	15.5	7.31	6.18	7.45	0.14	288
11	11/19/2013	20	18	7.45	2.11	5.73	0.33	43
12	11/19/2013	20	17.2	7.05	1.38	5.25	0.08	26
15	11/19/2013	20	17.9	7.17	16.8	3.98	0.2	237
17	11/19/2013	19	18.1	7.29	17.9	6.38	0.09	52
18	11/19/2013	21	19.4	7.91	20.9	8.73	0.19	10
20	11/19/2013	18	17.6	7.23	3.05	7.46	0.07	4
20	11/19/2013	18	17.6	7.23	3.05	7.46	0.07	2
22	11/19/2013	20	17.4	7.2	2.66	5.83	0.08	81

Stream Sampling Results: 8/13/2013 to 12/31/2014

Site Number	Date	Air Temperature	Water Temperature	pH	Turbidity	Dissolved Oxygen	Ammonia	E coli
25	11/19/2013	16	15.6	7.15	1.44	5.25	0.18	2
26	11/19/2013	16	15.2	7.52	0.84	9.11	0.03	6
27	11/19/2013	16	14.2	7.41	2.03	8.74	0.02	34
28	11/19/2013	16	16	7.41	0.88	7.92	0.14	306
29	11/19/2013	17	16.5	7.15	7.73	6.01	0.12	41
3	11/20/2013	13	14.5	7.74	5.85	9.99	0.03	22
5	11/20/2013	12	12.8	7.52	3.47	8.77	0.2	403
5	11/20/2013	12	12.8	7.52	3.47	8.77	0.2	456
6	11/20/2013	13	17.1	7.34	11.7	5.23	0.25	17
19	11/20/2013	14	15.5	7.24	5.03	4.62	1.39	545
23	11/20/2013	13	14.6	7.54	3.59	8.19	0.05	61
24	11/20/2013	12	14.2	7.32	2.68	7.88	0.2	60
8	12/18/2013	21	15.7	8.03	4.61	7.47	0.08	26
9	12/18/2013	2	11.1	7.73	4.58	5.57	0.17	1095
11	12/18/2013	6	11.2	7.74	6.24	8.34	0.09	54
12	12/18/2013	8	12	7.61	2.78	6.68	0.18	215
15	12/18/2013	21	13.4	7.85	15.7	7.67	0.22	69
17	12/18/2013	20	12.5	8.18	9.24	10.57	0.05	8
18	12/18/2013	20	13.7	8.34	9.79	10.8	0.07	13
19	12/18/2013	21	12.9	7.67	5.14	5.18	2.15	1633
20	12/18/2013	21	11.5	8.3	6.01	10.37	0.07	4
22	12/18/2013	4	10.7	7.65	4.37	5.78	0.08	29
29	12/18/2013	20	13	7.93	12.3	8.87	0.16	10
30	12/18/2013	21	11.1	8.15	25.6	9.34	0.08	69
31	12/18/2013	19	10.5	7.69	3.1	7.61	0.06	267
3	12/19/2013	17	11.5	7.86	6.04	10.53	0.05	15

Stream Sampling Results: 8/13/2013 to 12/31/2014

Site Number	Date	Air Temperature	Water Temperature	pH	Turbidity	Dissolved Oxygen	Ammonia	E coli
5	12/19/2013	16	13.6	7.79	9.73	8.78	0.32	234
6	12/19/2013	17	15.2	7.44	12.5	8.83	0.33	90
7	12/19/2013	18	12.5	7.95	1.72	9.99	0.07	69
23	12/19/2013	17	12.4	7.99	4.89	10.52	0.04	8
24	12/19/2013	15	13.4	7.59	3.36	9.24	0.22	0
25	12/19/2013	14	12.3	7.74	1.32	8.47	0.26	14
26	12/19/2013	14	10.5	7.77	2.18	9.8	0.15	147
27	12/19/2013	14	10.6	7.73	1.59	9.24	0.11	37
28	12/19/2013	13	10.9	7.6	2.35	9.6	0.07	41
9	1/22/2014	-1	8.5	7.63	5.34	8.74	0.19	113
11	1/22/2014	16	15.7	7.91	2.69	8.7	0.36	6
12	1/22/2014	14	11.7	7.68	1.74	8.73	0.21	17
15	1/22/2014	14	12.8	7.88	13.4	9.85	0.56	10
17	1/22/2014	14	13.3	7.95	23	5.55	0.08	22
20	1/22/2014	12	11.3	7.95	5.95	9.04	0	10
22	1/22/2014	16	11.5	7.83	3.69	11.73	0.46	1034
25	1/22/2014	2	8.7	7.74	1.47	9.19	0.25	8
26	1/22/2014	2	6.9	7.96	1.81	11.11	0.17	35
27	1/22/2014	2	6.4	7.87	4.76	10.96	0.11	116
28	1/22/2014	6	8.7	7.86	3.97	9.38	0.16	381
30	1/22/2014	12	9.7	7.8	13.2	8.92	0.28	10
31	1/22/2014	10	7.3	8.12	6.1	8.74	0.17	20
3	1/23/2014	2	9.1	7.68	5.66	10.1	0.03	17
5	1/23/2014	2	8	7.68	3.04	9.61	0.06	15
6	1/23/2014	2	12.8	7.26	8.55	8.54	0.66	40
7	1/23/2014	2	7.4	7.73	12.3	11.12	0.4	4839

Stream Sampling Results: 8/13/2013 to 12/31/2014

Site Number	Date	Air Temperature	Water Temperature	pH	Turbidity	Dissolved Oxygen	Ammonia	E coli
8	1/23/2014	2	9.5	7.5	3.76	8.23	0.06	77
18	1/23/2014	2	9.4	8	12.3	10.64	0.03	2
19	1/23/2014	2	9.2	7.41	9.15	7.24	2.24	2827
23	1/23/2014	2	9.4	7.83	2.39	10.37	0.05	22
24	1/23/2014	2	8.5	7.48	5.4	9.01	0.2	6
29	1/23/2014	4	9.3	7.54	27.9	8.87	0.07	2
9	2/18/2014	12	12	7.97	8.3	10.19	0.02	35
9	2/18/2014	12	12	7.97	8.3	10.19	0.02	35
11	2/18/2014	24	17.1	7.8	7.34	8.2	0.1	203
12	2/18/2014	24	18	7.6	5.72	9.63	0.08	60
15	2/18/2014	24	16.9	7.82	16.5	8.36	0.13	12
17	2/18/2014	24	16.8	8.27	18.4	9.42	0.03	4
19	2/18/2014	25	19.6	8.84	14.6	12.95	2.33	1633
20	2/18/2014	23	16.4	7.86	29.1	5.66	0.01	8
25	2/18/2014	16	12.6	8.03	5.85	10.21	0.19	8
26	2/18/2014	16	13.9	7.73	2.72	10.1	0.2	37
27	2/18/2014	17	14.5	7.9	1.8	9.7	0.04	37
28	2/18/2014	17	13	7.95	2.92	10.12	0.05	90
29	2/18/2014	23	17.4	7.8	8.54	8.37	0.05	2
3	2/19/2014	18	16.5	7.87	5.88	8.17	0.06	4
5	2/19/2014	17	16.8	7.18	2.32	6.64	0.13	90
6	2/19/2014	18	17.8	7.33	10.11	7.65	0.35	40
7	2/19/2014	17	14.5	7.46	6.58	8.21	0.04	59
8	2/19/2014	18	15.5	7.2	5.75	7.42	0.14	34
8	2/19/2014	18	15.5	7.2	5.75	7.42	0.14	38
18	2/19/2014	18	16.9	8.1	21	9.62	0.06	2

Stream Sampling Results: 8/13/2013 to 12/31/2014

Site Number	Date	Air Temperature	Water Temperature	pH	Turbidity	Dissolved Oxygen	Ammonia	E coli
22	2/19/2014	17	15.5	7.29	3.16	7.28	0.1	582
23	2/19/2014	18	17.4	7.79	4.91	8.24	0.05	150
24	2/19/2014	18	15.4	7.29	7.08	8.08	0.23	31
3	3/18/2014	13	11.3	7.92	32.6	8.46	0.04	615
5	3/18/2014	12	11.9	7.85	2.34	6.9	0.09	182
6	3/18/2014	13	14.4	7.77	42.2	7.86	0.13	570
7	3/18/2014	12	11.6	8.01	3.5	9.04	0.05	182
8	3/18/2014	14	12.3	7.88	5.36	7.96	0.18	15
17	3/18/2014	17	13.8	8.11	16.1	8.04	0.01	17
18	3/18/2014	14	12.6	8.14	32.3	8.56	0.02	76
19	3/18/2014	24	17.9	7.85	27.9	6.35	0.95	4839
20	3/18/2014	19	14.3	8.42	5.52	8.39	0.09	13
23	3/18/2014	14	13.4	7.96	28.2	8.2	0.04	356
24	3/18/2014	12	12.4	7.75	9.18	7.44	0.19	52
27	3/18/2014	22	13.5	7.94	1.83	7.17	0.13	182
28	3/18/2014	22	12.7	7.97	5.37	8.53	0.12	270
29	3/18/2014	15	14.3	7.96	6.94	8.56	0.03	496
9	3/19/2014	9	13.7	7.87	8	7.58	0.08	597
11	3/19/2014	8	14.4	7.74	4.1	5.9	0.09	128
12	3/19/2014	8	12.9	7.55	3.52	6.86	0.13	1298
15	3/19/2014	8	13.8	7.61	14	5.34	0.01	91
22	3/19/2014	9	13.1	7.68	4	6.92	0.08	794
25	3/19/2014	8	12.5	7.68	3.39	6.12	0.14	56
26	3/19/2014	9	11.9	7.97	3.28	8.86	0.08	34
9	4/28/2014	26	23.8	7.96	21	8.53	0.1	275
11	4/28/2014	26	23.7	7.44	8.8	3.1	0.48	271

Stream Sampling Results: 8/13/2013 to 12/31/2014

Site Number	Date	Air Temperature	Water Temperature	pH	Turbidity	Dissolved Oxygen	Ammonia	E coli
12	4/28/2014	26	23.2	7.44	7.1	4.17	0.44	2092
15	4/28/2014	26	24.6	7.95	10	7.87	0.24	32
17	4/28/2014	25	24.8	7.91	11	6.83	0.14	91
19	4/28/2014	26	27.6	7.66	23	6.05	1.74	4839
20	4/28/2014	23	24.2	7.78	4.8	4.38	0.5	2
22	4/28/2014	20	19.4	7.53	3.7	4.11	0.32	255
25	4/28/2014	21	21.7	7.59	3	4.76	0.05	133
26	4/28/2014	22	18.4	8.12	1.3	10.42	0.06	75
27	4/28/2014	23	20.7	7.65	1.2	6.27	0.14	22
28	4/28/2014	22	20.5	7.74	2.9	7.62	0.22	187
29	4/28/2014	23	22.2	7.46	8.1	10.52	0.19	2
3	4/29/2014	19	20.9	7.81	9	8.22	0.48	49
5	4/29/2014	18	20.4	8.05	14	5.04	0.26	64
6	4/29/2014	19	22	7.57	22	7.38	0.43	34
7	4/29/2014	18	18.1	7.57	3	7.6	0.2	80
8	4/29/2014	22	20.8	7.56	16	7.5	0.27	61
18	4/29/2014	23	23.4	7.83	50	6.97	0.57	16
23	4/29/2014	21	21.3	7.84	5.4	8.34	0.49	38
24	4/29/2014	18	20.8	7.48	4.8	8.62	0.26	30
9	5/20/2014	23	21.7	8.21	14	8.34	0.28	545
20	5/20/2014	27	25.2	7.93	7.7	7.12	0.09	95
25	5/20/2014	23	23.6	8	4.4	8.58	0.14	46
26	5/20/2014	24	22	8.4	1.5	10.03	0.12	333
27	5/20/2014	25	22.5	7.53	1.5	5.95	0.28	275
28	5/20/2014	26	23	8.02	2.1	8.47	0.11	197
28	5/20/2014	26	23	8.02	2.1	8.47	0.11	167

Stream Sampling Results: 8/13/2013 to 12/31/2014

Site Number	Date	Air Temperature	Water Temperature	pH	Turbidity	Dissolved Oxygen	Ammonia	E coli
29	5/20/2014	28	26.5	7.85	5.6	8.24	0.27	10
30	5/20/2014	27	26.3	8.05	12	8.57	0.17	79
5	5/21/2014	27	24.7	8.27	9.4	5.62	0.16	1226
7	5/21/2014	27	24	7.42	3.1	7.73	0.22	32
8	5/21/2014	29	25.9	7.35	9.4	6.56	0.21	13
8	5/21/2014	29	25.9	7.35	9.4	6.56	0.21	35
11	5/21/2014	25	23.3	7.3	5.5	4.16	0.28	297
12	5/21/2014	24	22.1	7.26	4.5	5.46	0.12	155
15	5/21/2014	23	23.5	7.34	16	5.36	0.07	209
17	5/21/2014	23	23.2	7.84	29	7.15	0.12	34
18	5/21/2014	30	27.7	7.85	19	8.46	0.09	8
19	5/21/2014	30	27.5	7.63	24	6.9	0.64	3973
3	5/22/2014	24	23.5	7.82	12	7.51	0.2	68
6	5/22/2014	23	24.4	7.64	17	7.69	0.34	87
23	5/22/2014	24	23.7	7.85	7.2	7.59	0.16	113
24	5/22/2014	22	23.5	7.22	4.6	7.13	0.08	775
9	6/25/2014	24	24.1	7.75	21	7.32	0.19	1454
15	6/25/2014	26	25.1	7.61	55	4.74	0.11	2240
17	6/25/2014	29	27.4	8.19	12	8.18	0.06	22
19	6/25/2014	23	24.5	7.65	120	5.8	0.2	1159
20	6/25/2014	29	27.6	7.9	2.7	7.2	0.03	29
25	6/25/2014	26	25.5	7.38	5.2	3.86	0	370
26	6/25/2014	27	25.5	7.61	8.9	6.22	0.16	1159
27	6/25/2014	27	26.7	7.53	4.7	6.91	0.09	615
28	6/25/2014	27	28	7.61	25	6.86	0.04	4839
29	6/25/2014	28	25.9	7.57	11	7.46	0.21	62

Stream Sampling Results: 8/13/2013 to 12/31/2014

Site Number	Date	Air Temperature	Water Temperature	pH	Turbidity	Dissolved Oxygen	Ammonia	E coli
30	6/25/2014	29	26	7.89	45	7.61	0.14	1159
31	6/25/2014	28	24.8	7.7	14	6.97	0.1	160
3	6/26/2014	26	24.2	7.65	220	7.35	0.14	4839
5	6/26/2014	27	24.5	8	19	8.28	0.33	4839
6	6/26/2014	26	23.9	7.54	450	5.71	0.23	4839
7	6/26/2014	27	24.1	7.83	8.2	7.68	0.38	3973
8	6/26/2014	28	24.2	7.39	11	5.29	0.08	192
11	6/26/2014	25	24.1	7.54	32	6.45	0.35	4839
12	6/26/2014	24	23.5	7.13	6.9	5.28	0.12	1733
18	6/26/2014	28	26.9	7.99	20	8.13	0.13	27
22	6/26/2014	26	23.6	7.42	8.1	5.56	0.28	1159
23	6/26/2014	26	23.9	7.6	220	7.22	0.12	4839
24	6/26/2014	23	23	7.54	27	7.1	0.24	4839
9	7/23/2014	26	26.5	7.29	15	7.63	0.12	120
11	7/23/2014	35	29.7	7.59	5.6	5.76	0.17	232
12	7/23/2014	34	28.9	7.51	1.8	8.84	0.31	52
15	7/23/2014	33	30.3	7.63	8.6	8.38	0	79
17	7/23/2014	33	29.1	7.49	12	8.5	0.01	15
18	7/23/2014	35	30.7	7.6	18	10.1	0.06	102
20	7/23/2014	33	27.6	7.49	5.3	8.05	0.02	2
25	7/23/2014	29	27.2	6.96	2.6	6.7	0.01	53
26	7/23/2014	31	27.8	7.29	6.8	8.68	0.02	82
27	7/23/2014	32	26	7.25	5.4	4.56	0.23	615
28	7/23/2014	31	27.4	7.32	17	8.31	0.01	160
3	7/24/2014	28	26.2	7.49	18	7.28	0	94
5	7/24/2014	28	24.9	7.34	4.5	4.33	0.04	69

Stream Sampling Results: 8/13/2013 to 12/31/2014

Site Number	Date	Air Temperature	Water Temperature	pH	Turbidity	Dissolved Oxygen	Ammonia	E coli
6	7/24/2014	27	26.4	7.31	37	6.51	0	99
7	7/24/2014	26	24.6	7.01	2.7	6.71	0.1	84
8	7/24/2014	29	25.4	7.4	7.8	4.67	0.06	370
19	7/24/2014	30	28.1	7.38	31	6.82	0.38	20
22	7/24/2014	25	24.1	7.08	4.1	5.76	0.08	821
23	7/24/2014	28	26	7.54	7.8	7.67	0.02	86
24	7/24/2014	26	25	7.32	3.6	5.03	0.13	35
3	8/27/2014	34	31	8.06	8.7	6.88	0.04	38
5	8/27/2014	34	30.7	8.27	7.8	6	0.07	43
6	8/27/2014	34	30.8	7.9	17	6.57	0.22	67
6	8/27/2014	34	30.8	7.9	17	6.57	0.22	656
7	8/27/2014	34	29.3	7.52	2.7	6.35	0.04	498
7	8/27/2014	34	19.6	7.52	3.4	8.75	0.23	297
9	8/27/2014	29	27.4	7.83	7.5	5.95	0.1	70
9	8/27/2014	29	27.4	7.83	7.5	5.95	0.1	0
11	8/27/2014	32	28.7	7.69	4.5	4.8	0.12	115
19	8/27/2014	34	31.2	8.17	22	8.43	0.64	98
22	8/27/2014	33	28.1	7.77	3.7	5.62	0.11	226
23	8/27/2014	34	32.8	8.17	4.3	7.69	0.06	118
24	8/27/2014	33	29.9	7.67	2.8	4.44	0.15	119
25	8/27/2014	29	29.3	7.69	3.2	4.33	0.08	54
28	8/27/2014	30	26.8	7.84	7.4	6.78	0.12	545
8	8/28/2014	32	26.2	7.47	4.6	5.37	0.03	187
8	8/28/2014	32	26.2	7.47	4.6	5.37	0.03	0
12	8/28/2014	31	26.1	7.72	3.5	7.62	0.06	119
15	8/28/2014	29	27.4	7.43	11	2.91	0.43	62

Stream Sampling Results: 8/13/2013 to 12/31/2014

Site Number	Date	Air Temperature	Water Temperature	pH	Turbidity	Dissolved Oxygen	Ammonia	E coli
17	8/28/2014	29	25.7	7.83	28	4.63	0.4	15
18	8/28/2014	33	28.7	8.2	38	6.88	0.1	32
20	8/28/2014	27	25.2	7.69	9.3	2.9	0.46	20
31	8/28/2014	26	23	7.67	28	4.14	0.26	521
9	9/24/2014	24	24.9	8.27	80	4.68	0.12	84
11	9/24/2014	30	26.3	7.96	6.9	6.91	0.2	182
12	9/24/2014	29	26.1	7.79	3.4	7.65	0.1	49
15	9/24/2014	29	28.6	7.52	10	3.83	0.09	17
17	9/24/2014	29	28	8.09	21	6.39	0.29	2
20	9/24/2014	28	26.3	7.71	4.1	4.68	0.27	2
3	9/25/2014	25	26.9	7.99	11	7.75	0.25	4
5	9/25/2014	22	23.8	7.56	30	4.81	0.13	30
6	9/25/2014	22	25.3	7.53	14	6.88	0.1	34
7	9/25/2014	26	28.9	7.72	3.5	7.67	0.1	58
8	9/25/2014	30	27.5	7.51	3.8	4.54	0.05	71
18	9/25/2014	30	30.1	8.04	35	6.86	0.1	13
19	9/25/2014	30	27	7.69	18	4.54	0.72	651
22	9/25/2014	27	24.2	7.68	5.1	4.98	0.07	222
8	10/29/2014	23	22.7	7.54	5.9	6.03	0.05	49
9	10/29/2014	16	17.9	7.71	12	6.71	0.03	22
11	10/29/2014	23	23	7.76	5.8	6.5	0.09	225
12	10/29/2014	22	20.8	7.37	2.7	4.65	0.1	63
15	10/29/2014	22	23.2	7.56	12	6.07	0.08	27
17	10/29/2014	22.4	22.4	7.77	15	4.97	0.06	17
18	10/29/2014	23	24.5	8.11	29	8.3	0.04	10
19	10/29/2014	23	24.4	7.56	22	5.11	1.59	4839

Stream Sampling Results: 8/13/2013 to 12/31/2014

Site Number	Date	Air Temperature	Water Temperature	pH	Turbidity	Dissolved Oxygen	Ammonia	E coli
20	10/29/2014	20	21.8	7.89	6.9	4.77	0.06	141
25	10/29/2014	17	18.6	7.59	4.9	6.95	0.37	35
26	10/29/2014	17	18.2	7.73	1.3	7.79	0.04	68
27	10/29/2014	18	19.1	7.45	1.8	4.59	0.05	4
28	10/29/2014	17	18.9	7.62	6.5	6.49	0.07	651
3	10/30/2014	17	18.3	7.65	8.5	8.93	0.08	79
5	10/30/2014	13	17.2	7.54	6.3	7.74	0.05	30
6	10/30/2014	16	20.1	7.39	11	7.47	0.04	37
7	10/30/2014	13	16.3	7.11	4.6	7.29	0.03	185
22	10/30/2014	13	16.5	7.08	3.2	5.9	0.04	178
23	10/30/2014	17	18.2	7.94	4.4	8.17	0.04	124
24	10/30/2014	16	18.2	7.43	3.6	7.07	0.1	219
3	11/19/2014	12	9.2	8.54	8.5	12.59	0.27	24
3	11/19/2014	12	9.2	8.54	8.5	12.59	0.27	27
5	11/19/2014	13	9.7	8.54	4.1	11.26	0.24	13
6	11/19/2014	11	13.1	7.97	7.4	8.89	0.33	0.34
7	11/19/2014	17	10.8	8.17	3.1	10	0.2	62
8	11/19/2014	20	17.2	8.17	18	6.9	0.3	4839
9	11/19/2014	5	6.3	8.24	5.9	10.73	0.03	245
11	11/19/2014	20	13.4	8.39	4.4	9.33	0.37	78
22	11/19/2014	19	13.7	8.14	4.9	6.9	0.26	4839
23	11/19/2014	13	11	8.61	4.8	11.67	0.31	43
24	11/19/2014	9	9.2	7.98	4.2	9.85	0.34	2
25	11/19/2014	8	6.5	8.06	1.5	14.67	0.23	2
26	11/19/2014	6	6.9	8.42	11.67	11.67	0.06	35
12	11/20/2014	19	12	7.75	8.2	8.69	0.14	129

Stream Sampling Results: 8/13/2013 to 12/31/2014

Site Number	Date	Air Temperature	Water Temperature	pH	Turbidity	Dissolved Oxygen	Ammonia	E coli
15	11/20/2014	19	11.1	7.88	10	6.9	0.13	42
17	11/20/2014	17	14.7	8.04	5.6	9.3	0.05	13
18	11/20/2014	23	16.6	8.11	9.8	11.72	0.28	2
19	11/20/2014	21	15.5	7.6	12	5.39	2.95	2827
20	11/20/2014	15	14.1	7.94	9.2	10.01	0.46	67
27	11/20/2014	10	8.7	7.43	3.7	8.79	0.02	27
28	11/20/2014	10	9.8	7.55	3.5	9.79	0.02	53
28	11/20/2014	10	9.8	7.55	3.5	9.79	0.03	65
8	12/17/2014	8	11.2	7.45	6.3	8.29	0.06	182
9	12/17/2014	7	10.2	7.29	14	8.63	0.06	1961
11	12/17/2014	8	11.6	7.39	5.9	8.71	0.23	56
12	12/17/2014	7	10.1	7.1	34	3.97	0.1	731
15	12/17/2014	7	10.8	7.14	9.7	2.43	0.08	651
17	12/17/2014	7	11.4	7.42	15	7.36	0.1	15
18	12/17/2014	8	11.1	7.52	22	10.33	0.11	104
19	12/17/2014	8	11.1	7.42	17	7.09	1.06	4839
20	12/17/2014	7	10.7	7.42	8.2	8.52	0.03	95
22	12/17/2014	8	10.7	7.21	3.3	6.54	0.11	345
26	12/17/2014	7	10.3	7.53	2.6	9.69	0.09	323
27	12/17/2014	7	9.9	7.22	17	8.38	0.08	119
28	12/17/2014	7	9.8	7.22	2.5	7.6	0.09	119
3	12/18/2014	8	11.5	7.45	20	10.19	0.35	2240
5	12/18/2014	8	11.4	7.25	7.3	9.96	0.24	1961
6	12/18/2014	8	13.7	7.24	24	8.24	0.26	1454
7	12/18/2014	7	10.8	7.37	21	10.1	0.19	3466
23	12/18/2014	8	13	7.5	29	10.02	0.1	1298

Stream Sampling Results: 8/13/2013 to 12/31/2014

Site Number	Date	Air Temperature	Water Temperature	pH	Turbidity	Dissolved Oxygen	Ammonia	E coli
24	12/18/2014	7	11.9	7.31	5.4	9.8	0.6	403
25	12/18/2014	7	10.4	7.88	35	8.47	0.15	3973