City of Bryan

Storm Water Management Program Annual Report – Year 3



CITY OF BRYAN The Good Life, Texas Style.^{**}

Prepared in accordance with TPDES General Permit TXR040000

2016

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Phase II (Small) MS4 Annual Report Form

TPDES General Permit Number TXR040000

A. General Information

Authorization Number: TXR040336

Annual Reporting Year: (calendar year, permit year, or fiscal year): Fiscal Year (10/1/2015 – 9/30/2016)

Last day of fiscal year, if applicable: September 30, 2016

MS4 Operator Level: <u>3</u>

Name of MS4/Permittee: City of Bryan

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E-mail Address: mjurica@bryantx.gov_

B. Narrative Provisions (Part IV Section B.2.(a))

1. Provide information on the status of complying with permit conditions: (Part V - Standard Permit Conditions):

	Yes	No	Explain
Permittee is currently in compliance with the SWMP as submitted to and approved by the TCEQ.		~	See Attachment 1 Narrative Provisions
Permittee is currently in compliance with recordkeeping and reporting requirements.		~	We are in compliance in MCM 1, 2, 5, 6. MCM 3 and 4 are mostly in compliance except for small lot residential recordkeeping.
Permittee meets the eligibility requirements of the permit (e.g., TMDL requirements, Edwards Aquifer limitations, compliance history, etc.)	~		TMDL I-Plan Approved by TCEQ August 22, 2012

2. Provide a general assessment of the appropriateness of the selected BMPs. Use table below or attach a summary, as appropriate (See Example 1 in instructions):

MCM(s)	BMP	BMP is appropriate for reducing the discharge of pollutants in stormwater (yes or no). Explain.
1A: Public Outreach	Community Education	Yes. Simple activities such as fertilizing, vehicle maintenance, and home improvements adversely impact our environment when performed incorrectly. Targeting educational materials to inform residents of safe alternatives and good housekeeping practices concerning home and yard maintenance will aid in lowering stormwater impact by this element.
1B: Public Education	School Education	Yes. Students have the potential to impact stormwater and water quality in the MS4 and can also positively affect their families' outlook. The City promotes stormwater education within the schools through service learning opportunities, participating in guest speaking opportunities, and by supporting Keep Brazos Beautiful (KBB) in its school education efforts. A Notice of Change (NOC) will be submitted revising the SWMP amending reference to BEE Bins are a measurable benchmark.
1C: Public Education	Construction Site Operator Education	Yes. Runoff from construction sites has an identified potential to degrade water quality in the MS4. Waste management, erosion control, and sediment management are points of concern relating to construction sites. The combination of guidance materials and general meetings with City staff are vehicles used in educating construction site operators in protecting water quality within the MS4. A Notice of Change (NOC) will be submitted revising the SWMP amending omitting pre construction meetings as a measureable benchmark and replacing such with issued contracts (containing B/CS Standards) and/or contractor certifications for services not required to meet B/CS Standards.
1D: Public Education	City Staff Education	Yes. Educational information is disseminated to City employees through electronic announcements, internet websites, new employee orientation, and group meetings. Topics include illicit discharges, floatables and litter, proper management and disposal of used oil and household hazardous wastes, and proper use, application, and disposal of pesticides, herbicides, and fertilizers. Task-specific training is provided, as required, to personnel directly involved in spill prevention and response.
1E: Public Education	Public Participation/Volunteer Activities	This measure includes opportunities for a wide variety of people who live, work, and play in Bryan to participate in SWMP development and implementation. Additionally, this measure promotes community awareness and protection of stormwater quality through participation in the storm drain marking, litter cleanup, and stream monitoring.
2A: Illicit Discharge	Illicit Discharge Detection and Elimination	Yes. The City's Illicit Discharge Detection and Elimination practices are used to locate and remove prohibited discharges from entering the storm drainage
2B: Illicit Discharge	Storm Sewer Screening and Illicit Discharge Inspections	Yes. Inspections are conducted in response to complaints received regarding illicit discharges and/or improper waste disposal or are triggered in response to information obtained through dry weather screening of the storm sewer

MCM(s)	BMP	BMP is appropriate for reducing the discharge of pollutants in stormwater (yes or no). Explain.
2C: Illicit Discharge	Storm Sewer Map Verification and Update	Yes. Maintaining an updated and accurate map of the storms sewer system is critical to providing timely emergency response for spills and detecting illicit discharges
2D: Illicit Discharge	Household Hazardous Waste and Oil Recycling	Yes. Most households routinely use small amounts of pesticides, herbicides, fertilizers, automotive fluids, batteries, paints, and solvents in the day-to-day upkeep of their homes, apartments and condominiums. Improper disposal of these materials through trash collection or poured down the storm drain can result in unwanted impact to the environment.
2E: Illicit Discharge	Septic Tanks	Yes. Brazos County Health Department (BCHD) serves as the City's designated health official. The City maintains legal authority prohibiting use of a septic tank when public sewer service is unavailable. The City and BCHD maintain a working relationship allowing co-review of septic tank applications to determine applicability before installation is granted. The City also maintains legal authority addressing performance standards and closure requirements for failing septic tanks located within the city limits. A Notice of Change (NOC) will be submitted revising the SWMP amending septic tank installations within the City as a measureable marker. Uncertainty exists with using "installation" as a marker. Focus will be placed on enforcement actions for septic use and the number of septic tanks removed from service.
3A: Construction Run Off	Construction Plan Review	 Yes. Expansion of the plan and permit issuance process is needed to ensure construction activity and land disturbance conforms to TXR0150000 and the City' SWMP. See Attachment 1 – Narrative Provision. Amending legal authority to establish a stormwater permit process yields opportunity for improving this BMP. Review of internal policy and process relating to permit issuance for general construction and land disturbance (without amending the existing legal authority) serves as an alternative for BMP enhancement.
3B: Construction Run Off	Inspection of Construction Sites and Enforcement of Control Measure Requirements	 Yes. The inspection verifies that the structural and non-structural control measures as outlined on the Erosion Control Plan and in the Stormwater Pollution Prevention Plan (SWPPP) are accurately reflected on the site, and are functioning as intended (maintained) to prevent pollution from leaving the site. The City maintains legal authority to inspect construction sites and require site compliance. The central database for storage of records pertaining to site inspections, forms relating to the site's permit status, and enforcement actions was created. We began the process of populating this database; however, it is a work in progress. Now that the City has funding for the new online permitting software this database will be replaced by that software. Significant effort will be undertaken in 2017 to develop the online system with expected "go live" in 2018. A Notice of Change (NOC) will be submitted revising the SWMP amending the timeframe for compliance to the end of the permit period with regard to small site residential inspections which have not been occurring.

MCM(s)	BMP	BMP is appropriate for reducing the discharge of pollutants in stormwater (yes or no). Explain.
3C: Construction Run Off	Maintain Legal Authority and Guidelines	Yes. The City will maintain its legal authority and update as necessary to comply with the TXR150000, TXR040000, and TXR050000 General Permits. The City will maintain guidance documents for construction and design professionals and make them accessible through the internet. Maintain and revise as necessary the stormwater quality requirements in the standard construction contracts for capital improvement projects.
4 A - De et	Danca City Code Deview and	See Attachment 6
Construction	Updates	requirements of the permit, in addition to staying current with any updates to state and federal laws.
4B: Post Construction	Establish Post-Construction Stormwater Management Program	Some components of this program exist but development of a more formal program is still needed. For large residential sites and commercial sites, a one year warranty inspection is performed at which time any deficiencies are remedied by the owner. If no deficiencies are noted it is at that time that we insure all BMPs that were employed that are not long term BMPs (such as silt fence) are removed from the site. Items to discuss further include long term maintenance of post construction stormwater control measures.
4C: Post Construction	Evaluation of Flood Control Projects	Yes. The City evaluates capital improvement projects each year that offer the potential to integrate water quality design features into flood management-focused design. Additionally, all development projects that come through the Site Development Review process are required to provide stormwater detention if greater than one (1) acre for commercial and two (2) acres for single residential lots or prove to the City why the detention would be more detrimental; exemptions to providing detention are only possible low in the watershed adjacent to primary systems where detention would cause stacking of peak flows in the watershed.
4D: Post Construction	Implementation and Performance of Structural/Non- structural	Yes. Staffing issues hindered progress in this measure. Inspections were not performed this reporting period. An internal goal of 10 inspections per year is set and will be met going forward.
5A: Pollution Prevention & Housekeeping	Municipal Facilities Identification	Yes. The City maintains SOPs for general good housekeeping, equipment washing, and fueling operations and vehicle maintenance, and chemical application. Furthermore, city-owned facility assessments are performed one time per period term.
5B: Pollution Prevention & Housekeeping	Training for Municipal Employees	Yes. City employees are trained on the proper procedures for reporting, containing spills and preventing pollutants from entering the storm drains. The combination of monthly group meetings and area-specific focused meetings are used to satisfy the requirement of this element.
5C: Pollution Prevention & Housekeeping	Contractor Training Oversight	Yes. Contractors hired by the City for maintaining City-owned facilities are required to comply with good housekeeping practices, stormwater control measures, and facility-specific stormwater management procedures.

MCM(s)	BMP	BMP is appropriate for reducing the discharge of pollutants in stormwater (yes or no). Explain.
5D: Pollution Prevention & Housekeeping	Waste Management	Yes. Preventing environmental upset through waste management is as important for protecting the health and sanitation of the community. Disposal of regulated wastes such as motor oils, oil filters, automotive fluids, etc. used by the City are managed through contract or agreement with a service provider. A Notice of Change (NOC) will be submitted revising the SWMP amending the currently adopted measureable markers. Staff is unable to accurately calculate the percentage of waste recycled and replacement of toxic chemicals with nontoxic. The City's focus within this MCM will remain as intended; however, the reporting mechanism will be changed to accurately reflect efforts in the MCM.
5E: Pollution Prevention & Housekeeping	Pesticides, Herbicides and Fertilizer Application	Yes. Minimizing discharge of pollutants related to storage and application of pesticides, herbicides and fertilizers applied by City staff or contractors to public rights-of-way, parks, and other public property is a key component to protecting water quality.
5F: Pollution Prevention & Housekeeping	Street Sweeping	Yes. Street sweeping is performed to limit litter and dust/dirt along public streets, public parking lots, and right-of-ways from being washed into the storm drain. Road debris from traffic flow can add to sediment loading of the storm drain if not properly managed.
5G: Pollution Prevention & Housekeeping	Grass Clippings, Leaf Litter, and Animal Waste	Yes. Grass clippings, leaf litter and animal wastes are addressed through several different initiatives to limit biological wastes and nutrients discharges into the MS4. The TMDL and I-Plan establish control measures to address bacteria within the permit area. Existing ordinances will be continually reviewed and revised as needed to ensure success of this measure.
5H: Pollution Prevention & Housekeeping	Road and Parking Lot Maintenance	Yes. Control of sediment and debris from municipally-owned road and parking lot maintenance is addressed through several different initiatives. Operating standards for road repair and maintenance (City and contractor) are established to protect water quality.
5I: Pollution Prevention & Housekeeping	Cold Weather Conditions	Yes. Application of salt or sand to roadways and sidewalks is performed on a limited basis.
5J: Pollution Prevention & Housekeeping	Spill Response	Yes. The City responds to spills and employs spill prevention procedures/practices for proper handling, storage, and disposal of hazardous and non-hazardous materials. HazMat services are used for circumstances requiring specialized handling and disposal of waste.
5K: Pollution Prevention & Housekeeping	WWTP Performance	Yes. A waste load allocation of 36.25 CFU/100 mL is established in the Carters Creek TMDL I-Plan for <i>E. coli</i> loading associated effluent discharges from the Burton Creek WWTP. Proper operation and maintenance of each WWTP plays a key role in reducing <i>E. coli</i> loading to each plant's receiving stream. See Attachments 2-5
6A: MS4 Maintenance Activities	System Repair and Maintenance	Yes. Structural controls within the MS4 that are owned, operated and maintained by the City include the conveyances (creeks and channels) and engineered control systems (drainage inlets and piping systems, culverts, and detention and retention ponds). Ongoing operations and maintenance of these structural controls reduce the discharge of pollutants from the MS4.

MCM(s)	BMP	BMP is appropriate for reducing the discharge of pollutants in stormwater (yes or no). Explain.
6B: MS4 Maintenance Activities	Water Quality and Flood Control Structures	Yes. Structural controls within the MS4 that are owned, operated and maintained by the City include the conveyances (creeks and channels) and engineered control systems (drainage inlets and piping systems, culverts, and detention and retention ponds). Ongoing operations and maintenance of these structural controls reduce the discharge of pollutants from the MS4.
6C: MS4 Maintenance Activities	Floatables	Yes. Structural controls, litter abatement programs are in place to reduce discharge of floatables into the MS4. Floatables removal improves surface water quality, channel aesthetics, and drainage system conveyance.
6D: MS4 Maintenance Activities	Litter Abatement	Yes. The City partners with Keep Brazos Beautiful (KBB) for (1) promoting educational awareness regarding environmental stewardship, and (2) coordinating volunteer efforts in litter collection, and (3) benchmarking aesthetics for city streets and right-of-ways.

3. Describe progress towards reducing the discharge of pollutants to the maximum extent practicable. Summarize any information used (such as monitoring data) to evaluate reductions in the discharge of pollutants. Use a table or attach a narrative description as appropriate:

МСМ	BMP	Parameter	Quantity	Units	Does BMP Demonstrate a Direct Reduction in Pollutants? (Yes / No / Explain)
1	Community Education	Outreach Materials	 39,525 items ordered and distributed. \$11,360.85 8 Community Hero Bryan Police Academy National Night Out Bryan Police Academy (Sp) Habitat New Home Owners Planet Earth Copperfield HOA Austins Colony HOA 	 Dollars Events 	Yes. Heavy emphasis on public education is focused to illegal dumping and general usage of the sewer system. Work order history combined with system overflows show a reduction in illicit discharges and system overflows.
2	Illicit Discharge & Elimination	Overflows/Releases	 846 257 51.4 	 SSOs Defects Found Mile of Pipe Tested 	Yes. Burton Creek and Country Club Branch are impaired stream segments located within the City of Bryan. A TMDL has been established for these stream segments. Requirements of the MS4 combined with the

					TDML I-Plan center on identification and elimination of point and non-point sources of <i>E. coli</i> . See 2-5
3	Construction Site Management	Plans Reviewed	• 49	Permits Issued	Yes. Sites were inspected on a regular basis with goal of inspecting at least monthly or more frequently if wet weather. Large sites were inspected more frequently than smaller sites.
4	Construction Site Management	Post Construction Controls	• 45	Inspections	Yes. Commercial and Residential subdivisions having public infrastructure associated with them were inspected at the 1- year warranty period to note any deficiencies and to remove any remaining temporary BMPs such as silt fence.
5	Training for Municipal Employees	Employees Trained	• 29	Employees Trained	Yes. Training on topics relating to MS4 increase employee education and awareness to permit conditions and responsibilities.
6	System Screening	Inlet Inspections	• 131	Inspections	Yes. Inlet inspections are databased through work order history. Work orders deter illicit discharges in the future by allowing utility managers the ability to track current and previous conditions/occurrences of an individual inlet.

4. Provide the measurable goals for each of the MCMs, and an evaluation of the success of the implementation of the measurable goals (See Example 2 in instructions):

MCM(s)	Measurable Goal(s)		Succes	S	
1A: Public	a. Number of PSAs	a. 2			
Education	created	b. Web traffic tracked by	Google Analytics. Tr	affic count:	
	b. Traffic count (website,	Web Page	FY15 Page Views	FY16 Page Views	% Change
	application, media,	Code Enforcement	4,764	5,645	18.5%
	etc.)	Permits	8,017	9,89 <i>3</i>	23.4%
	c. Number of media	Building Services	4,646	4.866	4.73%
	avenues utilized	Building Design	638	92	41.38%
	d. Number of	Building FAQ	1,528	1,831	19.83%
	promotional items	Environmental Svc	12,081	13,375	3.43%
	purchased	Stormwater Mgt	767	824	7.43%
		c. City of Bryan Channel	16, City of Bryan We	ebsite, and City of Br	yan social media
		pages are used as outre	each to the public.		
		d. 39,525 items ordered a	nd distributed. \$11,30	50.85 (See Attachmer	nt 8)
1B: Public	a. Number of	a. 14			
Education	presentations	b. 0			
	b. Number of school	c. BEE Bins are no longe	r a supported program	n. This measure will l	be removed from
	events attended	future reports. The City	y will explore other e	ducational avenues to	replace BEE
	c. Number of BEE Bins	Bins. A Notice of Char	nge (NOC) will be su	bmitted in early 2017	amending the
	checked out	SWMP with adoption	with a like or improve	ed measure.	

Measurable Goal(s)	Success
a. Number of pre- construction meetings performedb. Number of outreach materials distributed	a. 35 b. 35
 a. Number of employees trained in SWMP b. Number training sessions completed c. Number of employees trained in multi-sector permit 	a. 29 b. 1 c. 16
 a. Number of cleanups performed by volunteers b. Number of volunteer sampling events (TMDL) c. Website updated 	 a. 4: ✓ Henderson Park: 100 volunteers ✓ Downtown Bryan: 15 volunteers ✓ Downtown Bryan: 32 volunteers ✓ Trash Off – City Wide: 130 volunteers b. 0. Volunteer sampling for the TDML is coordinated by Texas Water Resource Institute (TWRI) using students from Texas A&M University. Volunteer sampling under the TMDL was not performed this reporting period. c. Brazos Clean Water Website is maintained by Texas Water Resource Institute. Website is updated with information provided by the contributing entities (Bryan, College Station, TAMU, Brazos Co., etc.).
 a. Number of illicit discharge sources identified and corrected b. Number and types of illicit discharge related work order requests issued c. TCEQ SSO Initiative objectives met 	 a. 419 (177 sewer/water cases, 130 private defects, 60 missing/broken cleanouts, 51 sewer main defects, 1 broken/damaged manhole) b. 419 (177 sewer/water cases, 130 private defects, 60 missing/broken cleanouts, 51 sewer main defects, 1 broken/damaged manhole) c. SSOI objectives met. SSOI report submitted to TCEQ on October 31, 2016
 a. Number of sanitary sewer SSOs b. Miles of sanitary sewer pipe cleaned c. Miles of root control application completed d. Number of sewer sub- basins inspected using smoke testing e. Number of private-side sewer defects identified and repaired f. Number of public-side sewer defects identified and repaired g. Number of grease traps 	 a. 846 b. 76 c. 0 (27 SSOs were corrected by the City resulting from roots). Root control is performed on an as-needed basis. This measureable marker provides little value to the SWMP. A Notice of Change (NOC) will be issued in early 2017 amending the SWMP with adoption with a like or improved measure. d. 2 e. 190 f. 52 g. In Ground Grease Traps (112), Above Ground Grease Traps (65), Grit Traps (10), and Lint Traps (11). A Notice of Change (NOC) will be issued in early 2017 amending the SWMP by omitting percentage of traps meeting pumping schedule. This measureable marker reflects snap shot of a single day opposed to the reporting year. The marker does not add value to execution of the SWMP. h. 8 i. 39,525 items ordered and distributed. \$11,360.85 (See Attachment 8)
	Measurable Goal(s)a.Number of pre- construction meetings performedb.Number of outreach materials distributeda.Number of employees trained in SWMPb.Number of employees trained in multi-sector permitc.Number of cleanups performed by volunteersb.Number of cleanups performed by volunteersb.Number of volunteer sampling events (TMDL)c.Website updateda.Number of illicit discharge sources identified and correctedb.Number and types of illicit discharge related work order requests issuedc.TCEQ SSO Initiative objectives meta.Number of sanitary sewer SSOsb.Miles of sanitary sewer pipe cleanedc.Mumber of sewer sub- basins inspected using smoke testinge.Number of public-side sewer defects identified and repairedg.Number of public-side sewer defects identified and repaired

MCM(s)	Measurable Goal(s)	Success
	 h. Number of educational events attended i. Number of educational materials distributed j. TCEQ SSO Initiative objectives met 	
2C: Illicit Discharge and Elimination	 a. Number and types of updates to asset inventory and map b. Number of manholes and inlets inspected c. GIS layer updated and current 	 a. Assets are updated to GIS in real-time. Changes made to GIS are driven by (1) field observations and (2) new construction b. 113 manholes and 113 inlets were inspected this reporting period. c. GIS is updated daily to reflect changes and/or additions made to the water and sewer system base maps
2D: Illicit Discharge and Elimination	 a. Participation rates per HHW reporting year b. Number of HHW events hosted per year c. Volume of used motor oil and cooking oil recycled 	 a. Traffic Count: April 7, 2016 (3,366) and October 8, 2016 (5,049) b. 2 c. 755 gallons of used cooking oil, 24 drums of used oil filters, 220 gallons of antifreeze, and 6,900 gallons of used motor oil (see Attachment 9)
2E: Illicit Discharge and Elimination	 a. Number of septic tanks installed in city limits b. Number of enforcement actions against septic tanks located in the city limits c. Number of septic tanks removed from service in the city limits 	 a. Septic tanks are regulated by the Brazos County Health Department. Historical data is not available for older installations. A Notice of Change (NOC) will be issued in early 2017 amending the SWMP by altering this indicator to track the number of septic tanks installed for the reporting period. b. 0 c. 29
3A: Construction Site Runoff	 a. Number of outreach materials distributed b. Number of dual language materials created c. Number of Site Development Review cases d. Number of Building Permits issued e. Number of designed Capital Improvement Projects – percentage of Capital Improvement Projects with SWPPP f. Number of engineered construction plans related to public infrastructure 	 a. 35 b. 0 c. 236 new cases d. 7,713 total e. 10 - 100% f. 50 (#of projects total from inspectors list including upcoming)

MCM(s)	Measurable Goal(s)	Success
3B: Construction Site Runoff	 a. Number of complaint- driven inspections b. Number of engineered construction plans related to public infrastructure reviewed c. Number, type, and location of inspections completed d. Number of inspections needing improvement vs. total number of inspections e. Number of enforcement 	 a. 15 b. 36 c. 83 commercial / subdivision construction site inspections; 360 new home sites were inspected by building services but no formal SWPPP inspection was documented. d. 75 total inspections where deficiencies were found out of 443 total inspections; e. 0
3C: Construction Site Runoff	 a. Number of ordinances reviewed b. Number of ordinance amendments made or new ordinances adopted 	 a. 1 b. 1 (Ordinance No. 2133 – Municipal Stormwater Management)
4A: Post Construction Stormwater	 a. Number of ordinances reviewed b. Number of ordinances modified c. Number of new ordinances adopted 	 a. 1 b. 1 (Ordinance No. 2133 – Municipal Stormwater Management) c. 0
4B: Post Construction Stormwater	 a. SOP drafted and practiced b. Database established c. Number of plans reviewed d. Number of site inspections performed e. Number of enforcement actions enacted f. Evaluate continued operation and maintenance practices 	 a. This needs to be developed in coordination with Development Services, Engineering, Streets and Drainage and Code Enforcement specifically in how to address development of long term maintenance plans, inspection and enforcement thereof. This is referenced below in proposed NOC for 2017. b. Database established. c. We currently do not require or review long term maintenance plans. NOC will be issued removing this metric. d. 45 commercial/subdivision inspections performed e. 0 – voluntary compliance on issues noted f. As mentioned in (a) above, this area needs development and will be in NOC for 2017.
4C: Post Construction Stormwater	 a. Number of flood control and drainage capital improvement project design evaluated for water quality measures b. Number of flood control and drainage construction projects with water quality measures initiated 	 a. 10 b. 29 c. 12 d. Compared to previous years where we listed zero, this year we added projects with 2yr (or stream bank erosion) detention as water quality measures. e. See Section E Stormwater Activities for planned stormwater activities in the next reporting period

MCM(s)	Measurable Goal(s)	Success
	 c. Number of flood control and drainage construction projects with water quality measures completed d. Types and locations of measures implemented e. Evaluate continued operation and maintenance practices 	
4D: Post Construction Stormwater	 a. Number of new and redevelopment projects over 1 acre b. Number, type(s) and locations of LID features implemented at City facilities c. Evaluate continued operation and maintenance practices 	a. 38 b. 0 c. Ongoing
5A: Pollution Prevention & Housekeeping	 a. Applicable facilities identified b. Database created c. GIS layer created d. Facility assessments complete 	 a. City-owned facilities identified, databased, and mapped. Assessments completed February 2015. No assessments were performed in this reporting year. Assessments for City-owned facilities will be completed in Year 4. The City-owned facility inventory is updated as changes are made to City property. b. Yes c. Yes d. Yes
5B: Pollution Prevention & Housekeeping	 a. Number of employees trained in SWMP b. Number training sessions completed c. Number of employees trained in multi-sector permit 	a. 29 b. 1 c. 16
5C: Pollution Prevention & Housekeeping	 a. Number of contractors educated on City's SWMP b. Number of outreach materials completed c. Percentage of contracted amended to include SWMP language d. Number of contactor performance forms completed for not meeting contact obligations 	 a. 31 b. 3 documents exist for contractor education: <i>Keep it Clean</i> and <i>General</i> <i>Construction and Site Supervision to Improve Stormwater Quality</i>, (2) City's website, and (3) Bryan/College Station Design Standards. See Section 4, MCM 1 for web traffic information c. Boiler plate contract and bid forms exist for City-managed projects involving soil disturbance. The percentage of changes made will remain 0 unless a new boiler plate is adopted. A Notice of Change (NOC) will be issued in early 2017 amending the SWMP to instead track the number of contractors educated in SWMP. d. 0

MCM(s)	Measurable Goal(s)	Success
5D: Pollution Prevention & Housekeeping	 a. Percentage or volume of waste recycled b. Number of waste types recycled c. Percentage or number of chemicals replaced with non-toxic 	 a. The volume and/or percentage of waste recycled are dependent on consumption and resource demand within each department. Tonnage of recycled goods collected from the general public is tracked by the Bryan Recycling Center. Recycled wastestreams processed through weekly in-house (e.g. paper collection, printer cartridges, and E-waste) collection is not tracked. In-house waste streams are not individually measured and are comingled with wastes processed from the general public. A Notice of Change (NOC) will be issued in early 2017 amending the SWMP to better reflect in-house recycling efforts with a reportable number demonstrating success of this MCM. b. Office paper, oil, oil filters, fluorescent bulbs, vehicle fluids, brass and misc. water fittings, printer cartridges, computer and E-waste represent typical wastestreams recycled. c. Unknown. Determining a "toxic" product is somewhat subjective. Staff can only best-guess at this determination based on the product's SDS Sheet. A Notice of Change (NOC) will be issued in early 2017 amending the SWMP in instead track the percentage of facilities covered by a SOP and the number of inspections performed to ensure the SOPs are practiced
5E: Pollution	a. SOP completed	a. SOPs completed – November 2014. SOPs will be reviewed in Year 4 and amended
Prevention & Housekeeping	 b. Schedule completed c. Number of licensed applicators employed by the City 	as needed.b. General guidance for application and use is found in the SOP. Frequency and occurrence for application is based upon season and weatherc. 3
5F: Pollution	a. Number of street miles	a. All streets with a curb are scheduled to be swept 4 times per year. 4,043 miles of
Housekeeping	b. Volume of debris collected through sweeping	schedule to be met. 135 citizen requested sweep orders were completed. Citizen orders are added to the scheduled sweeping frequency b. ~1,040 yards of waste
5G: Pollution Prevention &	a. Number of outreach materials created	a. 2 outreach materials were created this reporting period (Code Enforcement Booklet, Code Enforcement utility flyer). Code Enforcement website was reworked
Housekeeping	b. Number of PSAs created	b. 1 PSA was created this reporting period (Code Enforcement)c. 50%. Installation of the stations is determined by park age and size
	c. Percentage of city parks providing animal waste stations	
5H: Pollution	a. SOPs completed	a. SOPs completed – November 2014
Housekeeping	events (location and volume) c. Number of road	 c. See Element 3. A Notice of Change (NOC) will be issued in 2017 amending the SWMP to eliminate this item because performance measure is already captured elsewhere in the SWMP.
	projects completed (new)	d. 163 road projects completed, 227concrete patches completed, 157 in house road repairs completed (asphalt), 185 sewer utility cuts completed and 105 water utility
	d. Number of road projects completed (maintenance)	cuts completed.
51: Pollution Prevention & Housekeeping	a. Number of city employees trained in spill responseb. Number of spill events	 a. The Bryan Fire Department (114) serves as the City's lead for emergency response and site containment. Code Compliance Officers (5) represent staff-level employees trained in basic spill response. b. Bryan Fire Department maintains an inventory record for dispatch calls and response. For purposes of this report "requiring purposes" is understood by the second seco
	requiring response	response. For purposes of this report requiring response is understood as a spill or release meeting TCEQ notification requirements. No reportable spills occurred this reporting period.

MCM(s)	Measurable Goal(s)	Success
5J: Pollution Prevention & Housekeeping	a. TPDES Discharge Permit metb. Discharge monitoring reports submitted	a. Permit compliance met for WWTPs. TCEQ granted reduced sample frequency for <i>E. coli</i> at Burton Creek and Still Creek WWTPsb. Monthly and reclaimed water discharge monitoring reports submitted monthly.
6A: MS4 Maintenance	 a. Number of pipe areas scheduled for maintenance b. Number of repairs completed c. GIS layer created d. Database created e. Number of roadside ditches and culverts repaired f. Number of roadside culverts replaced g. Volume of debris removed h. Number of city- maintained ponds 	 a. maintenance is not forecasted for pipe. Performed work on pipe is driven by findings from manhole and inlet inspections. b. ~900 ft. of pipe has been repaired; ~35 creek banks were reclaimed; one detention pond bank was stabilized and no material was hauled out. c. GIS layer is established and updated by projects are complete d. GIS layer is a database of new installed or existing inspected pipes. The actual inspection record is kept in the work order system. When rehab projects change pipe segments the GIS layer is updated usually within 1 year to reflect the changes. e. 117 ditches and culverts were repaired. Activity within this Element has been expanded through an interlocal agreement with Brazos County for use of trustee labor (e.g. prisoners). \$42,564.30 in trustee projects were completed this reporting period. f. Zero g. Measurement is not calculable. Comment was made in the 2015 Annual Report. Notice of Change (NOC) will be issued in early 2017 amending the SWMP to replace this measureable marker with a measure containing reporting capability.
6B: MS4 Maintenance	 inspected a. Number of inlets protected b. Number of events where litter intervention is provided c. Volume of debris collected from street cleaning/right-of-way management 	 h. 8 a. 4,170 inlets citywide have a stormwater quality notice posted on the inlet. b. One (1) community wide used tire cleanup was completed this reporting year. Likewise, cleanup of illegal dump sites and non-point litter/debris located within the public right-of-way is a shared duty between Solid Waste and Code Enforcement. As previously mentioned, trustee labor is now used to assist in community cleanups and system maintenance for correction of issues located on public property. 36 (\$42,564.30) trustee projects were completed this reporting period. c. ~1,040 yards of waste are collected and removed through street sweeping (4 yds/day x 2 trucks). Waste associated with tree trimming and right-of-way clearance is not tracked
6C: MS4 Maintenance	 a. Number of cleanup events participated in by City staff b. Number of KBB-led events performed c. Volume of debris collected from Solid Waste Assessment Workers 	 a. One (1) community wide used tire cleanup was completed this reporting year. Likewise, cleanup of illegal dump sites and non-point litter/debris located within the public right-of-way is a shared duty between Solid Waste and Code Enforcement. As previously mentioned, trustee labor is now used to assist in community cleanups and system maintenance for correction of issues located on public property. 36 (\$42,564.30) trustee projects were completed this reporting period. b. See Section 4, MCM 1 for performance activity c. 3 fulltime employees are hired to perform litter collection and removal from the right-of-way. As previously mentioned, trustee labor is now used to assist in community cleanups for correction of issues located on public property. Volume of waste collected is not tracked. A Notice of Change (NOC) will be issued in early 2017 amending the SWMP to better reflect a reportable value for this measure.

C. Stormwater Monitoring Data (Part IV Section B.2.(b))

1. The MS4 has conducted monitoring of stormwater quality and submitted in the annual report (i.e. analytical and visual observations).

Yes No ✓

a. Explain below or attach a summary to submit along with any monitoring data used to evaluate the success of the SWMP at reducing pollutants to the maximum extent practicable. Be sure to include a discussion of results:

D. Impaired Waterbodies (Part IV Section B.2.(c))

1. If applicable, explain below or attach a summary of any activities taken to address the discharge to impaired waterbodies, including any sampling results and a summary of the small MS4's BMPs used to address the pollutant of concern:

Elements addressing water quality monitoring, infrastructure maintenance and operation, surface water runoff, and development safeguards outlined within the I-Plan are written into the SWMP to ensure continuity for reducing *E. coli* loading among both documents (I-Plan and SWMP).

The TMDL Allocation Summary table will serve as the ultimate measure of program success. Measureable milestones and implementation schedules from the I-Plan will be used to steer monitoring efforts and measure program success. SCMs addressing *E. coli* that coincide with control of *E. coli* are highlighted green in each Element.

Indicators of success regarding measures relating to *E. coli* will include: (1) number of sources identified or eliminated, (2) decrease in number of illegal dumping cases, (3) increase in reporting of illegal dumping, (4) number of educational opportunities conducted, (5) reduction in sanitary sewer overflows, and (6) increase in illegal discharge detection through dry screening.

MCMs addressing impaired waterbodies are highlighted in green within this report.

See Attachments 2-5

2. Describe the implementation of targeted controls if the small MS4 discharges to an impaired water body with an approved TMDL (*Part II Section D.4.(a)*):

See D.1 above.

3. Report the benchmark identified by the MS4 and assessment activities (*Part II Section D.4.*(a)(6)):

Benchmark	Benchmark Value	Description of additional sampling or other assessment activities	Year(s)
Parameter	(MPN/day)		conducted
Bacteria (E. coli)See Attachments 2-5		Sampling efforts are performed by (1) TWRI, TCEQ, and BRA for stream sampling and (2) City of Bryan for WWTP performance.	2015/16

4. Provide an analysis of how the selected BMPs will be effective in contributing to achieving the benchmark (Part II Section D.4.(a)(4)):

Benchmark Parameter	Selected BMP	Contribution to achieving Benchmark
Bacteria (E. coli)	Community Education	Improve water quality within the watershed through public education and outreach.
Bacteria (E. coli)	Illicit Discharge Detection and Elimination	Continue implementation of SSO initiatives in the watershed, minimizing impacts of raw sewage being spilled in the watershed due to failures in the wastewater collection and treatment system.
Bacteria (E. coli)	Storm Sewer Screening and Illicit Discharge Inspections	Improve water quality within the watershed through storm sewer maintenance and inspection to identify and correct illicit discharges or connections.
Bacteria (E. coli)	Sanitary Sewer Overflows and Infiltration	Continue implementation of SSO initiatives in the watershed, minimizing impacts of raw sewage being spilled in the watershed due to failures in the wastewater collection and treatment system. See Attachment 4-5
Bacteria (E. coli)	Septic Tanks	Improve identification, inspection, pre-installation planning, education, operation, maintenance, and tracking of all OSSFs in the watershed to minimize the potential negative water quality impacts from malfunctioning systems. Septic tanks are regulated by the Brazos County Health Department. The City is working with Brazos County to develop a GIS layer for tracking locations of septic tank installation in the City of Bryan to assist both agencies with system management. Water Services installed sewer service along State Highway 21. This effort removed 29 septic tanks from service.
Bacteria (E. coli)	WWTP Performance	Ensures WWTPs are performing in accordance with their TPDES discharge permit. See Attachment 3

5. If applicable, report on focused BMPs to address impairment (*Part II Section D.4.(a)(5)*):

Pollutant to Address	Description of Focused BMP	Comments/Discussion
Bacteria (E. coli)	Private Line Repairs/Smoke Testing	City crews proactively smoke test the sanitary sewer system for defects (public and private). 51.4 miles of sewer pipe were smoke tested for this reporting period. 190 private defects were identified and repaired. 151.8 miles of pipe have been smoke tested since FY2012.
Bacteria (E. coli)	Sewer Line Cleaning and Inspection	Approximately 76 miles (19% of the sanitary sewer system) was cleaned and inspected in FY2016.
Bacteria (E. coli)	Septic Tanks	OSSFs are prohibited for installation if a property is located within 150' of a sewer service. Bryan Code has established protocols for OSSF abandonment and closure when sewer service becomes available. Septic tanks are regulated by the Brazos County Health Department. The City is working with Brazos County to develop a GIS layer for tracking locations of septic tank installation in the City of Bryan to assist both agencies with system management. Water Services installed sewer service along State Highway 21. This effort removed 29 septic tanks from service.
Bacteria (E. coli)	WWTP Performance	WWTPs perform monitoring for <i>E. coli</i> in accordance with their TCEQ-issued discharge permits. TCEQ granted a reduced <i>E. coli</i> sample frequency to the Burton Creek WWTP on October 30, 2013 as a result of continued permit compliance relating to <i>E. coli</i> .

6. Describe progress in achieving the benchmark (*Part II.D.4.(a)*(6)):

Benchmark Indicator	Description/Comments		
Sanitary sewer overflows (SSOs)	SSOs are point sources for <i>E. coli</i> and pollutant loading within the watershed. SSO		
	frequency for public overflows slightly decreased for the current monitoring period compared with FY2016 (846) compared with the previous FY2015 (813).		
Dry weather screening of storm sewer system	Dry weather screening is performed during routine maintenance by staff to pinpoint		
	cross connections and line breakage. 113 inlet and manhole inspections were		
	completed.		
Illegal dumping and prohibited discharge	Code Enforcement responds to citizen complaints concerning illegal dumping and		
cases worked	prohibited discharges. See Attachment 5		
Sanitary sewer system maintenance and	Sanitary sewer pipe cleaning/inspection combined with smoke testing are tools used		
inspection	for upkeep and maintenance of the sanitary sewer system.		
	 Private Defects Found (current:190, FY2015: 435) 		
	 Public Defects Found (current: 87*, FY2015: 66) 		
	 Miles of Pipe Cleaned/Inspected (current: 76, FY2015: 84) 		
	*includes manhole repairs made		

E. Stormwater Activities (Part IV Section B.2.(d))

Describe any stormwater activities the MS4 operator has planned for the next reporting year. Use the table or attach a summary, as appropriate:

MCM(s)	BMP	Stormwater Activity	Description/Comments
1A: Public Outreach	Community Education	 Review existing outreach Continuation of outreach Brainstorm topics and ideas Brainstorm new media avenues 	This MCM is a continuous effort that will be performed for the remainder of the permit term
1B: Public Education	School Education	 Continue existing outreach program with schools Evaluate existing programs for program expansion 	This MCM is a continuous effort that will be performed for the remainder of the permit term. BEE Bins are no longer utilized for education. This program and measure will be evaluated and amended as needed.
1C: Public Education	Construction Site Operator Education	 Continuation of existing programs and services Evaluate outreach materials and modify as needed Complete annual multi- sector training for affected staff 	This MCM is a continuous effort that will be performed for the remainder of the permit term
1D: Public Education	City Staff Education	 Evaluate training materials and modify as needed Complete annual multi- sector training for affected staff 	This MCM is a continuous effort that will be performed for the remainder of the permit term
1E: Public Education	Public Participation/Volunteer Activities	 Continuation of existing programs and services Brainstorm avenues for increasing public participation Update website with Annual Report 	This MCM is a continuous effort that will be performed for the remainder of the permit term
2A: Illicit Discharge	Illicit Discharge Detection and Elimination	 Implement training program for illicit discharge investigation and elimination 	This MCM is a continuous effort that will be performed for the remainder of the permit term
2B: Illicit Discharge	Storm Sewer Screening and Illicit Discharge Inspections	 Implement training program for illicit discharge investigation and elimination 	This MCM is a continuous effort that will be performed for the remainder of the permit term
2C: Illicit Discharge	Storm Sewer Screening and Illicit Discharge Inspections	 Continuation of existing programs and services Identify and correct illicit discharge/connections Establish training program for illicit discharge investigation and elimination Facilitate mechanism for reporting and response to 	This MCM is a continuous effort that will be performed for the remainder of the permit term

MCM(s)	BMP	Stormwater Activity	Description/Comments
		residential concerns regarding illegal dumping and discharge of non- stormwater materials	
2D: Illicit Discharge	Sanitary Sewer Overflows and Infiltration	 Continuation of existing programs and services Identify and correct illicit discharge/connections Establish training program for illicit discharge investigation and elimination Facilitate mechanism for reporting and response to residential concerns regarding illegal dumping and discharge of non- stormwater materials 	This MCM is a continuous effort that will be performed for the remainder of the permit term
2E: Illicit Discharge	Storm Sewer Map Verification and Update	 Inspect and verify condition of outfall and water quality Inspect and verify condition of manholes and inlets (20% of system) Expansion and maintenance of GIS layers 	This MCM is a continuous effort that will be performed for the remainder of the permit term
2F: Illicit Discharge	Household Hazardous Waste and Oil Recycling	 Continuation of used oil recycling services Increase marketing and outreach of recycling services 	This MCM is a continuous effort that will be performed for the remainder of the permit term
2G: Illicit Discharge	Septic Tanks	 Continuation of application review with BCHD 	This MCM is a continuous effort that will be performed for the remainder of the permit term
3A: Construction Run Off	Construction Plan Review	 Continuation of Site Development Review and plans review process for Capital Improvement Projects 	This MCM is a continuous effort that will be performed for the remainder of the permit term
3B: Construction Run Off	Inspection of Construction Sites and Enforcement of Control Measure Req.	 Continuation of inspection protocol – (1) at least 1 inspection every 30 days for each active project and (2) after major rain events 	This MCM is a continuous effort that will be performed for the remainder of the permit term. Inspection records will be entered into the laserfische database for the first time this year. 2017 a full time employee as dedicated drainage inspector will be hired and bolster the city's current inspection effort.
3C: Construction Run Off	Maintain Legal Authority and Guidelines	 Review existing ordinances and control mechanisms for conformance relating to General Permit requirements 	Ordinance No. 2133 (Municipal Stormwater Protection) was adopted on December 15, 2015. A formal permitting process is outlined for obtaining City- issued permit coverage. Launch Laserfische application for data management relating to construction stormwater permits (NOL NOT

MCM(s)	BMP	Stormwater Activity	Description/Comments
4A: Post Construction	Bryan City Code Review and Updates	 Internal planning and discussion Amend or propose new ordinance language where needed Identify needed change to Bryan City Code with regard to federal state, and local environmental regulations and design 	CSN) This MCM is a continuous effort that will be performed for the remainder of the permit term
4B: Post Construction	Establish Post- Construction Stormwater Management Program	 practices Continuation of existing programs and focus Development written procedures for enforcement, and management mechanism for post-construction stormwater management Review data acquisition procedures and revise as necessary Track number of new development and redevelopment projects meeting MS4 monitoring requirements Evaluate long-term operation and maintenance of stormwater controls Document enforcement actions enacted 	Written procedures still need to be developed with remaining items currently being done. The database created will be used to track new and redevelopment projects meeting MS4 requirements. Full time drainage inspector will be involved in developing the SOPs for development projects. NOC will be issued in 2017 to extend timeframe.
4C: Post Construction 5A: Pollution Prevention &	Evaluation of Flood Control Projects Municipal Facilities Identification	 Continuation of existing programs and focus Evaluate City capital improvement projects for flood control on a case-by-case basis to assess feasibility of incorporating stormwater controls to address water quality Continue to draft facility SOPs 	This MCM is a continuous effort that will be performed for the remainder of the permit term This MCM is a continuous effort that will be performed for the remainder of the permit term
Housekeeping5B: PollutionPrevention &Housekeeping	Training for Municipal Employees	 Create inspection/assessment form Continuation of existing programs and focus Perform department- specific annual training of 	This MCM is a continuous effort that will be performed for the remainder of the permit term

MCM(s)	BMP	Stormwater Activity	Description/Comments
		 staff execution of the City's SWMP Complete annual multi- sector training for affected staff 	
5C: Pollution Prevention & Housekeeping	Contractor Training Oversight	 Revise bid and contract documents to include contractor performance requirements relating to SWMP Utilize mandatory pre-bid meetings as outreach (as necessary) Establish protocol for documenting contractor training Establish protocol for documenting poor contractor performance 	This MCM is a continuous effort that will be performed for the remainder of the permit term
5D: Pollution Prevention & Housekeeping	Waste Management	 Continuation of existing programs and focus Perform task/department- specific annual training of staff execution of the City's SWMP Draft task/facility-specific SOPs 	This MCM is a continuous effort that will be performed for the remainder of the permit term
5E: Pollution Prevention & Housekeeping	Pesticides, Herbicides and Fertilizer Application	 Continuation of service 	This MCM is a continuous effort that will be performed for the remainder of the permit term
5F: Pollution Prevention & Housekeeping	Street Sweeping	 Continuation of existing programs and focus Sweep all streets at least 2 times per year; thoroughfares at least 4 times per year; city-owned parking lots 4 times per year 	This MCM is a continuous effort that will be performed for the remainder of the permit term
5G: Pollution Prevention & Housekeeping	Grass Clippings, Leaf Litter, and Animal Waste	 Continuation of existing programs and focus Review existing outreach Continuation of outreach Review legal authority and amend as necessary Enforcement of city ordinances 	Revision of the Solid Waste Ordinance, adoption of a Municipal Setting Designation, and adoption of Local Limits for Thompsons Creek is forecasted for the next reporting period This MCM is a continuous effort that will be performed for the remainder of the permit term
5H: Pollution Prevention & Housekeeping	Road and Parking Lot Maintenance	 Continuation of service 	This MCM is a continuous effort that will be performed for the remainder of the permit term

MCM(s)	BMP	Stormwater Activity	Description/Comments
5I: Pollution Prevention & Housekeeping	Cold Weather Conditions	Continuation of service	This MCM is a continuous effort that will be performed for the remainder of the permit term
5J: Pollution Prevention & Housekeeping	Spill Response	Continuation of existing programs and focusReview existing protocols	This MCM is a continuous effort that will be performed for the remainder of the permit term
5K: Pollution Prevention & Housekeeping	WWTP Performance	 Continuation of existing programs and focus 	This MCM is a continuous effort that will be performed for the remainder of the permit term
6A: MS4 Maintenance Activities	System Repair and Maintenance	 Continuation of existing programs and focus Record damaged storm drain piping and schedule maintenance Investigate roadside ditches and culverts through service requests Asset management though GIS and database 20% system inlets inspected per year Clean and repair system inlets as needed Inspect all city-maintained retention and detention ponds annually 	This MCM is a continuous effort that will be performed for the remainder of the permit term
6B: MS4 Maintenance Activities	Water Quality and Flood Control Structures	 Continuation of existing programs and focus Record damaged storm drain piping and schedule maintenance Investigate roadside ditches and culverts through service requests Asset management though GIS and database 20% system inlets inspected per year Clean and repair system inlets as needed Inspect all city-maintained retention and detention ponds annually 	This MCM is a continuous effort that will be performed for the remainder of the permit term
6C: MS4 Maintenance Activities	Floatables	 Continuation of existing programs and focus 	This MCM is a continuous effort that will be performed for the remainder of the permit term
6D: MS4 Maintenance Activities	Litter Abatement	 Continuation of existing programs and focus 	This MCM is a continuous effort that will be performed for the remainder of the permit term

MCM(s)	BMP	Stormwater Activity	Description/Comments
		 Support and participate in regional litter abatement programs (Keep Brazos Beautiful, Texas Trash Off, Big Event, etc.). Support and participate in service projects and volunteer efforts regarding illegal dumping Right-of-way litter collection by Solid Waste Assessment Workers 	

F. SWMP Modifications (Part IV Section B.2.(e))

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

Yes No 🗸

If 'Yes', report on changes made to measurable goals and BMPs:

MCM(s)	Measurable Goal(s) or BMP(s)	Implemented or Proposed Changes
	Divit (3)	(Submit NOC as needed)
1	Measureable Goals	Notation of changes for the following measureable goals/BMPs is noted in narrative provisions above. Those items requiring official approval for change will be added to a Notice of Change (NOC) and submitted to TCEQ in early 2017. Notably the following changes are expected: removal of BEE Bins as a performance measure because BEE program no longer exists and amendment of volunteer sampling events related to execution of the I-Plan.
2	Measureable Goals	Notation of changes for the following measureable goals/BMPs is noted in narrative provisions above. Those items requiring official approval for change will be added to a Notice of Change (NOC) and submitted to TCEQ in early 2017. Notably the following changes are expected: amendment of performance measures relating to septic tanks and grease trap inspections. Root control (miles of treatment) will be replaced with (number of incidents for control).
3	Measureable Goals	Notation of changes for the following measureable goals/BMPs is noted in narrative provisions above. Those items requiring official approval for change will be added to a Notice of Change (NOC) and submitted to TCEQ in early 2017. Notably the following changes are expected: removal of performance measure relating to number of new road constructions listed in the Pollution Prevention and House Keeping section as this measure is already captured elsewhere in the report (5H). Also the schedule for plan review and inspection of small residential will be modified with NOC to reflect compliance by end of permit term. (3A)

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MCM(s)	Measurable Goal(s) or	Implemented or Proposed Changes
BMP(s)		(Submit NOC as needed)
		Also amending the timeframe for compliance to the end of the permit period with regard to small site residential inspections which have not been occurring (3B).
4	Measurable Goals	Notation of changes for the following measureable goals/BMPs is noted in narrative provisions above. Those items requiring official approval for change will be added to a Notice of Change (NOC) and submitted to TCEQ in early 2017. Move development of written procedures for enforcement, and management mechanism for post construction stormwater management to year 5 - 2018. (4B – a, f) Also number of plans reviewed for post construction will be removed with NOC in 2017 as that metric is not valuable to track (4C).
5	Measureable Goals	Notation of changes for the following measureable goals/BMPs is noted in narrative provisions above. Those items requiring official approval for change will be added to a Notice of Change (NOC) and submitted to TCEQ in early 2017. Notably the following changes are expected: removal of debris tracking for ROW maintenance.
6	Measureable Goals	Notation of changes for the following measureable goals/BMPs is noted in narrative provisions above. Those items requiring official approval for change will be added to a Notice of Change (NOC) and submitted to TCEQ in early 2017. Notably the following changes are expected: amendment to performance tracking for in-house recycling efforts and Solid Waste Assessment Workers.

Note: If changes include additions or substitutions of BMPs, include a written analysis explaining why the original BMP is ineffective or not feasible and why the replacement BMP is expected to achieve the goals of the original BMP.

2. Explain additional changes or proposed changes not previously mentioned (i.e. dates, contacts, procedures, annexation of land etc.): None

G. Additional BMPs (Part IV Section B.2.(f))

Provide a description and schedule for implementation of additional BMPs that may be necessary, based on monitoring results, to ensure compliance with applicable TMDLs and implementation plans.

BMP	Description	Implementation Schedule (Start Date etc.)	Status / Completion Date (completed, in progress, not started)
Full time storm water inspector to be hired in 2017	Hiring of full time storm water inspector looking at building and development construction sites, post construction and other related MS4 inspections.	Spring 2017	In progress

H. Additional Information (Part IV Section B.2.(g))

1. Is the permittee relying on another entity/ies to satisfy some of its permit obligations?

Yes No 🗸

If 'Yes," provide the name(s) of other entity/ies and an explanation of their responsibilities (add more spaces or pages if needed):

2.a. Is the named permittee sharing a SWMP with other entities?

Yes No 🗸

2.b. If 'yes,' is this a system-wide annual report including information for all permittees?

Yes No

If 'Yes,' list all associated permit numbers and permittee names (add additional spaces or pages if needed):

Authorization Number:	Permittee:
Authorization Number:	Permittee:
Authorization Number:	Permittee:
Authorization Number:	Permittee:

I. Construction Activities (Part IV Section B.2.(h-i))

- The number of construction projects in the jurisdiction of the MS4 where the permittee was not the construction site operator (as provided in submittals to the MS4 operator via notices of intent or site notices 25
- 2. a. Does the permittee utilize the optional seventh MCM related to construction?

Yes No 🗸

2. b. If 'yes,' then provide the following information for this permit year:

The number of municipal construction activities authorized under this general permit	
The total number of acres disturbed for municipal construction	
projects	

Note: Though the seventh MCM is optional, implementation must be requested on the NOI or on a NOC and approved by the TCEQ.

J. Certification

, i.

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.

Name (printed): Kean Register	Title: City Manager
Signature: Keur Klip	Date: 19/16/16
Name (printed): Jayson Barfknecht, PhD, P.E.	Title: Public Works Director
Signature: Janson Bafkulit	Date: 12/16/16
Name (printed): Paul Kaspar	Title: City Engineer
Signature: Van Plaspan	Date: 12/13/16
Name (printed): Cody Cravatt	Title : Development Manager
Signature:	Date: (2/13/16
Name (printed): Robert Willis	Title : Streets & Drainage Supervisor
Signature: Josef & Martin	Date: 12/13/2016
Name (printed): Mark Jurica	_Title : Treatment & Compliance Manager
Signature: U	Date: 12/14/2016

Note: If this is this a system-wide annual report including information for all permittees, each permittee shall sign and certify the annual report in accordance with 30 TAC \$305.128 (relating to Signatories to Reports).

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Attachment 1 – Narrative Provisions

Growth is needed in the City's management of construction activities as outlined in the TXR040000 and TXR150000 General Permits. The City's development review and building permit processes are used to review project details relating to stormwater controls (e.g. stormwater pollution prevention plans, erosion control plans, sediment plans, etc.). Site Review (e.g. Site Development Review Committee) is used to conform conformance of planned commercial development with stormwater standards; a formal process is not currently practiced for residential construction. Program expansion is needed to ensure construction activity (regardless of type) confirm to the standards outlined in TXR040000 and TXR150000. The City has made strides toward accomplishing this by obtaining funding for a full time stormwater inspector that will provide residential inspections.

The City informs building permits applicants of their responsibility to support appropriate coverage under TXR150000 based the size and location of the construction site. The City has fallen short in Elements 3 and 4 of its SWMP by allowing land disturbance for residential construction activities without first obtaining the Construction Site Notice and/or Notice of Intent for the construction site. Further growth is needed to fully confirm to the City's SWMP and requirements of TXR040000 and TXR150000. Similarly, adherence of the closure requirements for final stabilization (e.g. obtaining the Notice of Termination or site closure form) is a focus point for the City and has not been uniformly practiced or enforced.

Development in these areas has been achieved in this reporting period with the population of the database created last year for site-specific records and information relating to construction site activity such as NOI, NOT, NOC, CSN. This tool will be used to aid staff (desk, inspector, and management) with information concerning the permit status of a construction site until a new online permitting system is implemented. The City allocated funding for the development of an online permitting system that will track all of this information. Development begins in 2017 with anticipated "go-live" in 2018.



CARTERS CREEK TOTAL MAXIMUM DAILY LOAD IMPLEMENTATION PROJECT FINAL REPORT

Texas Water Resources Institute TR-488 February 2016





Lucas Gregory, Brian Jonescu, Jason Murray, Cassian Schulz, Anna Gitter, Kevin Wagner

Carters Creek Total Maximum Daily Load Implementation Project

Final Report

Project Funded by: Texas Commission on Environmental Quality: Award: 582-13-30059

Cooperating Entities: Texas A&M AgriLife Research, Texas Water Resources Institute Texas A&M AgriLife Research, Department of Soil and Crop Sciences City of Bryan City of College Station Brazos County Health Department Brazos County Road and Bridge Department Texas A&M University - Environmental Health and Safety Texas Department of Transportation – Bryan District

Prepared by: Lucas Gregory, Brian Jonescu, Jason Murray, Cassian Schulz, Anna Gitter, Kevin Wagner

Texas Water Resources Institute Technical Report TR-488 February 2016

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List of Acronyms

City of College Station
City of Bryan
Geographic Information System
Implementation Plan
On-site Sewage Facility
Texas A&M University
Texas Commission on Environmental Quality
Total Maximum Daily Load
Texas Water Resources Institute
Texas Department of Transportation

Executive Summary

The "Carters Creek Total Maximum Daily Load Implementation" project was developed to provide additional information to watershed stakeholders regarding the spatial and temporal distribution of E. coli concentrations in water across the watershed to aid in planning future implementation efforts across the watershed. This goal was accomplished through a variety of focused tasks that collected water quality data and E. *coli* source information from across the watershed. Water quality monitoring was greatly expanded by utilizing four different monitoring approaches. Routine monthly monitoring conducted at four stations over a two-year period provided additional data for future water body assessments. Reconnaissance monitoring was conducted by volunteers on a monthly basis at 10 locations and provided water quality information in many areas of the watershed that had not been previously monitored. Stormwater sampling was conducted at two locations and demonstrated the influences of runoff events on water quality. Lastly, an intensive water quality monitoring approach was utilized to collect a large number of samples within selected creek segments on the same day to illustrate changes in water quality from upstream to downstream. This approach enabled specific areas of the watershed to be identified where E. coli loading is likely to occur.

Sources of *E. coli* across the watershed were also explored through this project. Physical observations were made in multiple locations across the watershed and recorded a diverse suite of *E. coli* contributors across the watershed. Pets and urban wildlife were noted in many developed locations while livestock and wildlife were noted in many of the undeveloped areas. No major influxes of *E. coli* were suspected to come from animals in any one area, but they certainly contribute to the overall *E. coli* load in the watershed. Urban infrastructure was also evaluated to identify areas where it can potentially influence water quality. A geographic information system was used to map infrastructure across the watershed and identify areas where infrastructure density or proximity to the stream suggest an increase in potential for water quality influences.

Combining water quality information with source survey results illustrated areas across the watershed where water quality observations may be at least partly explained by source survey results. These areas warrant further investigation in many cases, especially where infrastructure could be contributing to observed *E. coli* concentrations. Through this project, no simple approach to addressing *E. coli* loading in the watershed was identified. Instead, it will take a concerted effort to address many diffuse sources of *E. coli* across the watershed. Many such measures are already underway in the watershed and the entities responsible for them are addressing this challenging issue.
Introduction

In 2007, the Texas Commission on Environmental Quality's (TCEQ) Total Maximum Daily Load (TMDL) Team began the process of developing a TMDL and TMDL Implementation Plan for the Carters Creek watershed. The Carters Creek watershed is a tributary of the Navasota River and covers an area of about 56.9 square miles in Brazos County. When TMDL development began in 2007, the watershed was considered slightly more urban (57%) than rural (Figure 1). The cities of Bryan and College Station lie partly within the watershed and are drivers for development within and near the watershed.

Carters Creek drains the eastern portions of Bryan and College Station and the central portion of Brazos County before joining the Navasota River. Carters Creek, Burton Creek and Country Club Branch are all considered impaired due to elevated levels of *Escherichia coli (E. coli)*. The TCEQ denotes these waterbodies as segments 1209C, 1209L and 1209D respectively. These waterbodies were listed on the TCEQ's 303(d) list for bacterial impairments starting in 1999 for Carters Creek and 2006 for Burton Creek and Country Club Branch (TCEQ 2012). Each of these fails to meet its Primary Contact Recreation standard of 126 colony forming units (CFU) of *E. coli* per 100 mL of water. Initial listing of these waterbodies was supported by prior monitoring conducted by TCEQ and the Brazos River Authority (BRA). In 2014, a TMDL) was completed for each creek and as a result, they are proposed for delisting in the 2014 Texas Integrated Report (TCEQ 2014).

Project Significance and Background

In association with development of the TMDL, a stakeholder group was formed to determine what strategies are appropriate and work to craft them into a TMDL Implementation Plan (I-Plan). Through a facilitated process, stakeholders provided input regarding ways to address bacteria loading in the watershed and ultimately meet the TMDL established in the watershed. A variety of management measures and control actions were included in the I-Plan to achieve this goal by addressing bacteria loading from rural and urban areas. One item that was repeatedly discussed was the need for additional information regarding the current water quality and sources of *E. coli* in the watershed. At the time, data from only four water quality monitoring stations across the watershed was available and information regarding the distribution of and level of *E. coli* across the watershed.

This project was developed to fill these information needs through enhanced water quality monitoring, conducting a watershed source survey and by relaying information gained back to watershed stakeholders. To accomplish these objectives, an extensive water quality monitoring effort throughout the watershed was conducted to quantify water quality at an increased number of stations at an increased sampling frequency. As designed, the sampling effort provided information for small sub-watersheds within the larger Carters Creek watershed. This information allowed for comparisons between sub-watersheds to be made and areas contributing more or less *E. coli* than others to be identified.

A multi-faceted watershed source survey was also conducted to support the expansion of information gathering across the watershed. Traditional, on-the-ground surveys were completed in many areas of the watershed to provide concrete evidence of watershed usage and *E. coli* sources present. Geographic information system (GIS) data were also aggregated and generated based on survey information to further identify features within the watershed that may potentially be sources of *E. coli* or influencing water quality.

Collectively, this work provides information to watershed stakeholders that will allow them to compared measured water quality to the distribution of factors that can potentially influence water quality across the watershed. Using this information, management measure implementation can be directed to specific areas within the watershed to address *E. coli* loads as efficiently as possible.



Figure 1. Carters Creek watershed and impaired segments

Methods

Water Quality Monitoring

Monitoring to improve water quality data availability and distribution across the watershed was conducted using multiple methods to accomplish separate monitoring goals. Routine monitoring was performed to provide additional data to TCEQ for use in future water body assessments. Reconnaissance monitoring focused on greatly expanding the number of locations monitored on a regular basis while automated water sampling devices collected rainfall runoff event samples. Statistical analyses conducted included linear regression analysis to calculate correlation between the water quality parameter and streamflow, Spearman's Rho was used to calculate correlation between the water quality parameter and *E. coli*, and a Wilcoxon/Kruskal-Wallis Sum-Rank Test was used to identify significant differences in *E. coli* concentration medians between monitoring stations. For the purposes of this report, data collected through all types of monitoring (routine, reconnaissance, storm) are evaluated collectively unless stated otherwise.

Routine Monitoring

Data collection for use in future waterbody assessments was conducted at four locations across the watershed (Table 1). Stations selection was based on two primary factors: availability of previously existing data and watershed location. In consultation with City of Bryan (COB) and City of College Station (COCS) staff and Texas A&M University (TAMU) Department of Soil and Crop Sciences (SCSC) personnel, four monitoring stations were selected. Stations 11782, 11783, and 11785 (Figure 2) were all previously monitored by the Brazos River Authority (BRA) or TCEQ and contain historical data that supplements new data collected. Station 21259 was established especially for this project to better quantify water quality near the creek's confluence with the Navasota River. Sampling at these four stations occurred monthly beginning in February 2013 and ending in February 2015 by TWRI staff.

TCEQ	Sampling Sita Nama	Sampling	GPS Coo	ordinates
Station #	Sampling Site Name	Frequency	Latitude	Longitude
11785	Carters Creek @ Bird Pond Road	Monthly	30.602718	-96.249428
11782	Carters Creek @ SH 6 (upstream of Burton Creek confluence)	Monthly	30.644069	-96.311698
21259	Carter Creek @ William D. Fitch	Monthly/Storm	30.588628	-96.224594
11783	Burton Creek @ SH6 (downstream of WWTF)	Monthly/Storm	30.644267	-96.313952

Table 1. Routine Water Quality Monitoring Locations

During each sampling event, stream flow volume measurements were recorded with an acoustic Doppler flow meter (SonTek FlowTracker, San Diego, CA) and were used to define *E. coli* loads transported by the creek on each sampling day. Other water quality parameters were also recorded using a handheld multi-parameter water quality sonde (YSI 556 MPS or EXO1, Yellow Springs, OH). Dissolved oxygen (DO), pH, specific conductance, and water temperature were all recorded with these devices. General observations were also made at each site and included flow severity, weather conditions, water surface conditions, the presence of odors, debris or other substances. Field notes regarding site specific occurrences and other useful information was also recorded.

Water samples were collected into pre-labeled sterile containers and transported in ice to the Soil and Aquatic Microbiology Lab (SAML) at Texas A&M University where *E. coli* concentrations were determined using the USEPA 1603 method. This method produces a direct count of *E. coli* colonies in 100 mL of water.



Figure 2. Monitoring locations within the Carters Creek Watershed

Reconnaissance Sampling

Reconnaissance sampling was designed to collect samples at a variety of locations across the watershed on the same dates and same general times as routine monitoring occurred. To accomplish this, up to 25 trained volunteers were utilized to collect samples and record instream water quality data. The Texas Stream Team (TST) monitoring protocol was utilized and volunteers received training prior to sampling. Sampling was focused in areas where no previous monitoring had been conducted and thus no prior knowledge of the water quality at these sites existed. Sampling sites were selected based on discussions with TWRI, TAMU SCSC, COB, and COCS, and reconnaissance trips to each monitoring location. In total, 10 monitoring stations were created (Table 2 and Figure 2). Four of these stations were located in Bryan (TST Stations 80909, 80910, 80912, and 80915), and six were located in College Station (Stations 80908, 80911, 80913, 80914, 80916, and 80917). One monitoring station (80908) was co-located with TCEQ Station 11783 in order to provide a comparison of the data collected through routine and reconnaissance sampling teams.

TST	Compling Site Name	Sampling	GPS Coo	rdinates
Station #	Sampling Site Name	Frequency	Latitude	Longitude
80908	Burton Creek @ SH6 (downstream of WWTF)	Monthly	30.644428	-96.313953
80909	Carters Creek @ Briarcrest	Monthly	30.671092	-96.320336
80911	Bee Creek @ Appomattox Dr.	Monthly	30.609689	-96.281514
80912	Burton Creek downstream of Tanglewood	Monthly	30.640814	-96.335192
80910	Unnamed tributary of Burton Creek @ Maloney Ave.	Monthly	30.642361	-96.353539
80915	Briar Creek @ Hwy 6	Monthly	30.663617	-96.329931
80913	Carters Creek below CCWWTF outfall	Monthly	30.615506	-96.268889
80916	Carters Creek above CCWWTF outfall	Monthly	30.615175	-96.275872
80917	Hudson Creek @ FM 60	Monthly	30.636861	-96.295269
80914	Wolfpen Creek @ Hwy 6	Monthly	30.622572	-96.2911

Table 2. Reconnaissance Sampling Stations

Training that volunteers received consisted of four hours of hands on training that demonstrated their ability to collect water samples and perform tests in the field. In total, 76 volunteers were trained during the course of the project and a number of untrained volunteers were allowed to assist trained volunteers in the field with sampling activities. The same conditions were recorded for reconnaissance sampling as for routine sampling. *E. coli* analysis for the reconnaissance samples were processed differently than routine samples. The City of Bryan Thompsons Creek Wastewater Treatment Facility (WWTF) processed samples from Bryan sub-watersheds and samples from College Station sub-watersheds were processed at the City of College Station's Carters Creek WWTF lab. *E. coli* enumeration was conducted using the IDEXX Colilert-18 method. This method produces results in a most probably number (MPN) or *E. coli* per 100 mL and is widely used for assessment purposes. These methods are considered equals by the state for assessment purposes thus justifying their use. Validation of this assumption of similar results was completed by processing water samples collected from a single site using both methods.

Storm Sampling

Automated sampling devices (ISCO Model 6712 Portable Samplers, Teledyne-ISCO, Lincoln, NE) were deployed on Burton Creek and Carters Creek at Stations 11783 and 21259 (Table 1, Figure 2), respectively to collect stormwater runoff influenced samples. These samplers were programmed to only sample after the creek sites rose to a predetermined level. Once samplers were enabled, they took flow-weighted composite samples of the runoff event and recorded water levels which were translated to stream flow volumes. This data allowed for *E. coli* loads in storm events to be calculated. Samples were processed for *E. coli* concentrations by SAML using the USEPA 1603 method. Only *E. coli* concentrations and water depth/stream flow were recorded for these sampling events.



Automated Storm Sampler at Station 21259during a runoff event

Load Duration Curves

Load Duration Curve Analyses (LDC) was performed in order to assess the bacterial loading for Carters and Burton Creeks. LDCs pair streamflow and *E. coli* concentrations collected on the same date to estimate the pollutant loading reductions needed to meet

EPA water quality standards (Babbar-Sebens and Karthikeyan 2009; Morrison and Bonta 2008). Initially, a flow duration curve (FDC) is developed for each selected site and compares measured stream flow values to evaluate the percentage of time the specific flow value is exceeded within the time period evaluated. Flow data must be organized from largest to smallest flow and plotted against the percent of days that the specific flow value is expected to occur. The flow duration curve can then be divided into different flow categories and typically include high flow, moist conditions, mid-range flows, dry conditions and low flows. The TMDL line or maximum allowable pollutant load is developed by multiplying the FDC by the water quality standard and an appropriate unit conversion. Monitored E. coli loading is approximated by plotting the associated E.coli data with the corresponding stream flow levels. The majority of E.coli data should fall below the TMDL line in waterbodies that meet water quality standards, but for impaired water bodies, the *E.coli* loading is often above the TMDL line for the majority of data points, as seen in Figures 10, 12 and 13. Necessary load reductions to meet the water quality standard are calculated by the average difference between the TMDL and regression line plotted through the observed *E.coli* loads.

Developing LDCs assists in determining the type of pollution contributing to the site's impairment. When *E.coli* concentrations or bacterial exceedances occur in the high flow or moist conditions portion of the graph, non-point source pollution or sediment resuspension from rain events are likely to be the primary contributing causes of pollutant loading. Exceedances in dry conditions and low flow categories indicate point source pollution, streambed disturbance and direct deposition as the primary forms of contamination at the site. While LDCs can help determine pollutant load reductions, the analysis is not able to identify specific pollution sources or timing of the pollution.

Watershed Survey and GIS Assessment

To better understand the sources and distribution of *E. coli* across the watershed, a physical watershed survey was conducted over the course of the project by numerous individuals. A standard field survey sheet was utilized for all surveys to standardize the type of information recorded. Surveys were conducted at numerous sites across the watershed at locations along the creek and throughout the watershed with some sites being surveyed more than once. During each survey, observations were made instream and in the adjacent watershed. Stream and watershed characteristics were recorded to identify potential water quality influences. Observations included garbage presence and abundance, presence or absence of surface runoff, presence of fecal contamination, storm drain presence and functional status, evidence of disturbed soil, animal observations, and notation of the days since the rainfall occurred. Stream characteristics focused on flow status and stream type, riparian zone and substrate material information, people seen at stream section, and any significant pools in the stream at

the site. These detailed data improved the understanding of each location surveyed throughout the watershed and the distribution of potential water quality stressors.

Geographic information systems (GIS) data was also aggregated to further the understanding of the watershed as it relates to potential *E. coli* loading. The goal of the GIS was to aggregate information across the watershed so that it can be utilized to compare watershed characteristics with water quality and explore potential relationships with observed water quality. Available layers from local entities including Brazos County, COB, COCS, TAMU, and TxDOT were acquired and integrated with statewide and national datasets were also acquired from entities including TCEQ, TxDOT, the US Geologic Survey, the US Department of Agriculture (USDA) Natural Resource Conservation Service, USDA Farm Service Agency, and the Multi-Resolution Land Characteristics Consortium. New information was also created and integrated into the GIS. Watershed survey data were digitized and data layers were created that describe survey observations and depict their location across the watersheds. Water quality layers were also generated that illustrate measured water quality across the watershed.

To estimate the total number of on-site sewage facilities (OSSFs) in the watershed, data available from the Brazos County Health Department was aggregated with information regarding septage disposals made by septic pumping service companies who report the location where it originated. A method developed by Gregory et al. 2013 was also applied to identify other potential OSSFs in the watershed that may not have been noted in other data sets. Briefly, this approach combines Census data, aerial imagery and 911 address point locations to identify the number of residences in areas not serviced by centralized sewer systems. The points estimated were compared to those available from acquired data and locations where OSSFs were likely to be located but not known, were added to create an expected OSSF location layer.

Intensive Water Quality Monitoring

Tributaries of Carters and Burton Creeks routinely found with higher *E.coli* concentrations relative to other areas of the watershed with were sampled using a two-phase intensive sampling approach. The goal of this sampling type was to identify small sections of the monitored stream where *E. coli* concentrations rapidly increased. The approach utilized an initial screening sampling regime where numerous samples were taken along the stream on the same date to roughly identify areas within the stream where substantial *E. coli* concentration increases were observed. Stream reaches found to have rapid increases in *E. coli* as compared to other sampled reaches were resampled with a second intensive sampling event to further refine understanding of water quality

within that reach. Results were then compared with watershed survey and GIS information to identify potential water quality stressors in that section of stream.

Results and Observations

Water Quality Monitoring

Monitoring conducted across the watershed provided an expanded understanding of water quality in the watershed. Median values of *E. coli* concentrations recorded at the paired stations (11873 and 80908) were compared using the Wilcoxon/Kruskal-Wallis Sum-Rank Test and found no significant difference (p=0.99) between the two data sets. This strongly demonstrates that the results produced under the Routine and Reconnaissance methods are statistically similar. This allows a direct comparison of all *E. coli* concentrations collected across the watershed.

E. coli concentrations recorded at all monitoring stations varied significantly throughout the project period (Figure 3). Geometric means of recorded *E. coli* concentrations were found to be over the Primary Contact Recreation standard of 126 cfu/100mL at all but one monitoring site. The monitoring station at Briar Creek upstream of the south-bound frontage road (Station 80915) was the only site with a geometric mean meeting the water quality standard. Several other monitoring stations also exhibited geometric mean *E. coli* concentrations that were near the water quality standard. In each case, these locations were in the upstream portion of the watershed.

E. coli concentrations recorded in each water sample varied significantly between sampling event and between stream sites. Minimum *E. coli* concentrations observed at each station ranged from 2 to 387 cfu/100 mL while maximum values ranged from 1986 to 7400. However, these maximum values all occurred during a sampling event conducted less than 24 hours following a runoff producing rain event. Excluding this event, maximum *E. coli* concentrations ranged from only 530 to 2420 cfu/100 mL.

E. coli concentrations were compared between monitoring stations to identify the presence of statistically significant differences in median values. The Wilcoxon statistical test was used to identify differences in median values if they existed. Results of this test are presented in Table 3 and are denoted by bold values illustrating the presence of significant differences. Stations 80915 and 11782 were found to be statistically less than all but one and two other sites respectively while stations 80913 and 11785 were found to be statistically larger than all but three and four other stations respectively. Various other sites exhibited significant differences with each other but not obvious trends were noted. A more detailed assessment of water quality can be found in Jonescu et al. 2016.

	80915	11782	80910	80912	80908	11783	80917	80914	80916	80913	80911	11785	21259
80909	0.01	0.09	0.13	0.03	0.01	.02	0.33	0.09	<0.01	<0.01	0.91	<0.01	0.03
80915		0.06	<0.01	<0.01	<0.01	<0.01	0.04	<0.01	<0.01	<0.01	0.01	0.04	<0.01
11782			0.01	<0.01	<0.01	<0.01	0.77	<0.01	<0.01	<0.01	0.19	<0.01	<0.01
80910				0.35	0.87	0.83	0.11	0.93	0.25	0.04	0.42	0.15	0.84
80912					0.48	0.43	0.01	0.46	0.80	0.27	0.09	0.81	0.48
80908						0.99	<0.01	0.84	0.13	<0.01	0.13	0.01	0.70
11783							<0.01	0.83	0.13	<0.01	0.14	0.02	0.82
80917								0.03	<0.01	<0.01	0.33	<0.01	0.01
80914									0.23	<0.01	0.30	0.04	0.83
80916										<0.01	0.04	0.11	0.32
80913											<0.01	0.03	<0.01
80911												0.02	0.16
11785													0.03

Table 3. P-values for median comparisons between each monitoring site



Figure 3. E. coli concentration boxplots for each monitoring station in the Carters Creek watershed

Load Duration Curve Analysis

LDC analysis presented used all available *E. coli* and streamflow data collected by TWRI, BRA and TCEQ. Each of the four routine monitoring sites had sufficient paired data points to develop LDCs. Streamflow measurements were not recorded at reconnaissance monitoring locations; therefore, LDCs could not be developed at these locations. Load reductions needed to meet water quality standards during each flow category are listed in Tables 4 - 7.

Results from each station indicate that non-point sources and resuspension of *E.coli* from stream bed sediment are contributors to the overall *E. coli* load at all locations. At station 11782, the LDC (Figure 4) is above the TMDL line during high flows, moist conditions and mid-range conditions but dips below this line under dry conditions and low flows suggesting that point sources are not a sizable contributor of *E. coli* at this site. This finding is logical as no known point sources of *E. coli* exist upstream of this location. The LDC for stations 11783, 11785, and 21259 (Figures 5, 6, and 7 respectively) are above the TMDL at all points, indicating that *E. coli* concentrations are above the EPA standard during all flow conditions. In these cases, the probable pollutant loading types include non-point sources, instream sediment resuspension during high flows, point source contributions, physical streambed disturbances and direct deposition.

 Table 4. E. coli load reductions needed to meet water quality standards in Carters Creek near SH6 (Station 11782)

Flow Condition	% Flow Exceedance	Percent Load Reduction*	Average Annual Loading (cfu/year)
High Flow	0-10%	73.57	2.65E+02
Moist Conditions	10-40%	47.77	1.74E+02
Mid-Range	40-60%	19.38	7.08E+01
Dry Conditions	60-90%	NA	NA
Low Flow	90-100%	NA	NA

* NA signifies that loads are within allowable limits within the flow category



Figure 4. LDC for station 11782: Carters Creek at SH6

Table 5. E. coli load reductions needed to meet water quality standards in Burton Creek at SH6.(Station 11783)

Flow Condition	% Flow Exceedance	Percent Load Reduction	Average Annual Loading (cfu/year)
High Flow	0-10%	74.08	2.70E+04
Moist Conditions	10-40%	72.45	2.64E+04
Mid-Range	40-60%	71.88	2.62E+04
Dry Conditions	60-90%	71.01	2.59E+04
Low Flow	90-100%	62.26	2.27E+04



Figure 5. LDC for station 11783: Burton Creek at SH6

Tab	le 6.	E .	coli loa	d redu	ctions 1	needed t	o mee	t water	quality	standard	ls in	Carters	Creek a	t Bird	Pond
Rd.	(Stat	io	n 11785)											

Flow Condition	% Flow Exceedance	Percent Load Reduction	Average Annual Loading (cfu/year)
High Flow	0-10%	87.55	3.20E+04
Moist Conditions	10-40%	79.54	2.90E+04
Mid-Range	40-60%	78.58	2.87E+04
Dry Conditions	60-90%	76.32	2.79E+04
Low Flow	90-100%	64.94	2.37E+04



Figure 6. LDC for station 11785: Carters Creek at Bird Pond Road

Flow Condition	% Flow Exceedance	Percent Load Reduction	Average Annual Loading (cfu/year)
High Flow	0-10%	68.23	2.49E+04
Moist Conditions	10-40%	68.37	2.50E+04
Mid-Range	40-60%	68.43	2.50E+04
Dry Conditions	60-90%	68.48	2.50E+04
Low Flow	90-100%	68.79	2.51E+04

Table 7. *E. coli* load reductions needed to meet water quality standards in Carters Creek at Wm D. Fitch (Station 21259)



Figure 7. LDC for station 11785: Carters Creek at Wm D. Fitch

Watershed Source Survey and GIS Assessment

The watershed survey proved useful for exploring potential water quality influences of watershed attributes. A variety of potential bacteria sources occur across the watershed and a watershed survey is a good approach for aggregating information regarding each source type. Utilizing GIS also allows this information to be easily visualized in many cases. Availability of GIS data supported efforts to identify areas of the watershed where

water quality may be adversely impacted by allowing for rapid visualization of potential water quality stressors and their proximity to local waterbodies.

Animal sources of *E. coli* were widely documented across the watershed as expected. Birds, dogs, and feral hogs or their evidence was most commonly observed and many other species were noted as well but at less frequent intervals. Garbage was also routinely observed across the watershed in a number of locations. Locations where observations were made are included in Figure 8. These maps do not depict the full extent of fecal loading from animals across the watershed.



Figure 8. Locations were potential *E. coli* sources were observed in the watershed. Clockwise from top left: Birds, Dogs, Garbage, Wildlife

Infrastructure was also evaluated as a potential influence to water quality. Stormwater conveyances, wastewater conveyances, and streets can all have influences on water quality; particularly if system failures occur. Using GIS data provided by the entities within the watershed, cohesive layers of each infrastructure system was developed.

These layers were overlaid on the stream network within the watershed to identify areas where intersections occurred or high densities of a particular feature were noted. Locations where infrastructure intersects a stream present the highest potential for direct water quality impacts to be observed. As a result, these areas were mapped to illustrate their distribution across the watershed. Areas where infrastructure crosses can also be problematic if failures occur. For example, a broken wastewater line can leach untreated wastewater into stormwater infrastructure if it is also compromised. Throughout the watershed, there are 433 streets crossings over a defined creek channel, 713,200 feet of underground stormwater conveyance pipeline exists, 2,515,000 feet of wastewater pipeline traverse the watershed and cross a stream 468 times, and stormwater and wastewater pipelines cross over each other in 1,973 locations (Figure 9).



Figure 9. Locations where watershed infrastructure can influence on water quality. Clockwise from top left: Points where Streets Cross a Stream; Underground Stormwater Conveyances; Wastewater Pipeline and Stream Intersections; Stormwater and Wastewater Pipe Crossings Although centralized wastewater systems service the majority of the watershed, the areas outside of the city limits rely heavily on on-site sewage facilities (OSSFs). When properly designed, installed, operated and maintained OSSFs provide cost effective treatment of human waste that mitigates the release of *E. coli* to the environment. As

with any management system, failures can and do occur as a result of system age, improper maintenance, poor system installation or design, or system overload. Regardless of cause, failures increase the potential for wastewater to be released to the environment without proper treatment. Proximity of a failing OSSF to creeks or drainage ditches can influence the potential for improperly treated waste to make its way into downstream water bodies. In total, there are an estimated 769 OSSFs distributed across the watershed (Figure 10).



Figure 10. Estimated OSSF locations in the watershed

During the watershed survey, no obvious sources of *E. coli* loading other than fecal deposition by animals were noted and no infrastructure failures were identified.

Changes in land use and land cover were also evaluated as a potential water quality stressor. Land cover changes are often associated with changes in water quality. Generally, as the level of impervious surface increases, water quality degrades. This is due to multiple factors such as the concentration of potential pollutant sources, increased runoff production, and decreased water filtering and storage capacity of the watershed. Changes in land use and land cover in the watershed have increased considerably in recent years due to the rapid growth of Bryan and College Station and the surrounding areas. Land use and land cover layers from 2001 and 2011 were compared to quantify this level of change. This assessment demonstrated considerable loss of open space and a considerable increase in developed areas (Table 8 and Figure 11). In total, 8.5% of the watershed experienced a land use change in this 10 year assessment window. Land use losses occurred primarily in forests, shrub/scrub and in

pastures while increases in developed land accounted for these losses. However, some of the development in the watershed simply moved from one development category to another. A more detailed assessment of the watershed survey and GIS is available in Gregory et al. 2016a.

Land Use and Land Cover Classification	Acreage Assessm	Totals in ent Years	Difference between
	2001	2011	Assessment Years*
Open Water	118.5	124.8	6.2
Developed, Open Space	6,200.4	6,258.0	57.6
Developed, Low Intensity	6,131.9	6,553.1	421.2
Developed, Medium Intensity	5,125.3	6,071.4	946.1
Developed, High Intensity	1,476.5	1,898.8	422.3
Barren Land	79.2	68.9	-10.2
Deciduous Forest	3,546.3	3,035.7	-510.6
Evergreen Forest	136.8	109.2	-27.6
Mixed Forest	1,232.5	1,148.2	-84.3
Shrub/Scrub	3,026.6	2,501.5	-525.1
Grassland/Herbaceous	691.0	700.1	9.1
Pasture/Hay	6,307.6	5,686.8	-620.7
Cultivated Crops	211.9	210.8	-1.1
Woody Wetlands	2,052.3	1,957.7	-94.5
Emergent Herbaceous Wetlands	91.6	103.2	11.6

Table 8. Carters Creek Land Use and Land Cover acreages and changes

*positive values denote an increase in acreage between years and negative values denote a loss



Figure 11. Land use and land cover (top) and the area where land use and land cover change occurred (bottom) in the Carters Creek watershed

Intensive Water Quality Monitoring

Intensive monitoring was conducted on 6 tributaries of Carters Creek following an assessment of the routine and reconnaissance monitoring efforts (Figure 12). Areas of the watershed that had higher *E. coli* concentrations or where not available information had been previously collected were monitored more intensively through this sampling effort. Samples were collected in a downstream to upstream fashion throughout the watershed to prevent any stream bed disturbance from influence samples collected.



Figure 12. Sub-watersheds where intensive monitoring was completed

Sampling was attempted at a total of 69 sites across the selected sub-watersheds. Of these, 5 sites were not sampled due to lack of safe sampler access or water. *E. coli* concentrations in collected samples exhibited high variability across the watershed. Since sampling locations were selected based primarily on accessibility, the length of stream between sampling sites was divided by the difference in *E. coli* concentrations was used to find the areas with the greatest concentration increases. Areas with the most rapid rates of increase were sampled again in a subsequent round of sampling. Of the

waterbodies sampled, two sections of Bee Creek and one of its tributaries; two reaches of Burton Creek and two of its tributaries; and two reaches of Wolf Pen Creek and two of its tributaries were found to have the highest rates of *E. coli* increase. Following the first round of sampling, GIS and watershed survey information were reviewed to provide information on potential *E. coli* sources which may contribute to the increases observed. These potential sources were noted and extra care was taken regarding observations during the second sampling. No obvious influences of these sources were noted; however, the entire reach of each stream segment was not surveyed.

Waterbodies exhibiting considerably larger increases in *E. coli* concentrations between sampling locations were noted during the first sampling event. Two reaches of Bee Creek and one of its tributaries; two reaches of Burton Creek and two of its tributaries; and two reaches of Wolf Pen Creek and two of its tributaries were found to have the highest rates of increase. These sites were further investigated during a second sampling event.

The second round of intensive sampling provided additional insight into the specific loading areas within the sampled reaches. As in the first round of sampling, the portion of Bee Creek immediately upstream of Texas Ave. exhibited rapid increases and decreases of E. coli concentrations. The most upstream portion of the creek that drains from Spence Park on the TAMU campus also exhibited a considerable increase in E. coli concentrations that were 2 - 3 orders of magnitude higher than the primary contact recreation standard. Several reaches within the Burton Creek watershed also showed considerable changes in E. coli concentration within short distances. The unnamed tributary of Burton Creek that flows from Country Club Lake across Villa Maria and Texas Ave showed a rapid increase in *E. coli* immediately upstream and downstream of Villa Maria before levels declined to near the primary contact recreation standard. In Burton Creek between Broadmoor Ave. and the downstream end of Tanglewood Park, E. coli also increased steadily before beginning to decline. In the Wolf Pen Creek watershed, the tributaries monitored contained the higher observed E. coli concentrations than the creek. These areas included the headwaters of a tributary that drain the Bonfire Memorial and an unnamed tributary that flows under Harvey Rd. from Thomas Park into the Wolf Pen Creek park greenway immediately upstream of George Bush Dr. East. A more detailed assessment of intensive monitoring results is available in Gregory et al. 2016b.

Discussion

Collection of *E. coli* data from routine, reconnaissance, stormflow and intensive monitoring indicate that bacteria levels in the Carters Creek watershed do not achieve water quality standards in most locations. Generally, the geometric mean of E. coli concentrations increases when moving from upstream to downstream (Figure 3) with a slight improvement observed between the last two stations (11785 and 21259). A number of monitoring stations do have significantly different median E. coli concentrations from other sites illustrating the presence of water quality differences across the watershed. Data collected during stormflow monitoring indicates that large rain events cause E. coli concentrations to increase to levels well above the Primary Contact Recreation set by TCEQ. This is not surprising as storm events are responsible for washing non-point source pollutants into the waterbody and causing large scale sediment resuspension within the channel. LDC analyses conducted reinforced knowledge regarding the types of *E. coli* contributions within the watershed. Non-point sources of pollution and runoff induced resuspension of sediment appear to have a slightly larger influence in instream water quality in the upstream portion of the watershed while direct deposition, point and non-point sources all contribute to the observed water quality in downstream locations.

The upper portion of the Carters Creek watershed appears to be the area responsible for the least amount of *E. coli* loading. Sampling sites on Briar Creek (80915), Carters Creek above Burton Creek (80909 and 11782) and Hudson Creek (80917) produced the lowest geometric mean concentrations. The lower density and relatively newer age of development (as compared to some other areas) are possible reasons why lower *E. coli* concentrations were observed in these areas. In portions of the watershed where development is denser and in some cases older, *E. coli* concentrations were typically higher. Increasing intensity of development has resulted in subsequent declines in water quality in many other watersheds (Goto and Yan2011; Mallin et al. 2000). With the rate of land use change occurring in the watershed, this finding is not surprising.

Intensive sampling of the watershed revealed several stream segments where *E. coli* concentrations increased rapidly as compared to adjacent stream reaches. Observations made within these reaches and the presence of stormwater and wastewater infrastructure in the vicinity of these areas could potentially contribute to the observed increases; however, no concrete evidence to support this suggestion was found. Stormwater infrastructure seemingly contributed to the observed *E. coli* load in several locations. Insignificant volumes of water were present in these locations at the time of sampling and no runoff had occurred in more than two weeks; however, *E. coli* concentrations in their vicinity were still high. It is suspected that storm drains and the conveyance system may provide a suitable habitat for *E. coli* to survive in water or sediment as they have been found to in other watersheds around the world. Piping

shields *E. coli* from direct sunlight and prevents the inactivation of cells through UV exposure. Additionally, stormwater infrastructure could also intercept wastewater leaking from a failing sewer line or from an illicit connection. One example of stormwater infrastructure being a suspected source of *E. coli* in the watershed is the Wolf Pen Creek tributary that is formed near the Bonfire Memorial. Water collected from this stormwater outfall had a considerably higher *E. coli* concentration than the adjacent site and downstream sites. The headwaters of Bee Creek also showed high *E. coli* concentrations where the stream drains out of Spence Park on the TAMU campus. In addition to storm water infrastructure, the ongoing renovations to Kyle Field (at the time of sampling) represent a potential influence on the elevated *E. coli* concentrations. Further sampling at this location now that the Kyle Field renovations are complete may illustrate different *E. coli* concentrations.

Waterbody shading may also influence *E. coli* concentrations observed in stream. In some cases, increases were observed where the stream flowed through predominantly shaded areas. Subsequently, when stream flowed into areas where there is limited or no shade and the stream is shallow, the *E. coli* levels begin to fall again. An example of a segment with extensive shade on the stream is the upper portion of Bee Creek between George Bush Dr. and Glade St. In this reach, *E. coli* concentrations increase rapidly before beginning to slowly decline. Other inputs of bacteria within this reach are possible and likely given the drastic increase in observed *E. coli* concentrations. Wastewater infrastructure is also a potential source at many of the observed segments; however, there was no evidence of leakage during sampling or stream surveys. Several locations had unpleasant odors, but it is unknown whether the source of these smells came from wastewater infrastructure or another source. Inspection by the appropriate wastewater personnel is recommended to further investigate potential sources *E. coli* sources *E. coli* sources in these segments.

After sampling data assessment and review, several areas should be considered for further investigation. City or TAMU personnel with knowledge of the potential sources of *E. coli* in these areas (stormwater or wastewater infrastructure) would be the ideal persons to perform these inspections as they may be able to identify problems that can be readily addressed. Also, if infrastructure smoke testing or camera inspections that are currently underway in the watershed could be applied in these areas, they too may be able to identify the underlying cause of the observed *E. coli* loading in these areas.

Summary

Efforts to improve knowledge regarding the spatial and temporal variation in *E. coli* concentrations across the Carters Creek watershed were evaluated throughout the course of this project. Water quality monitoring combined with a watershed survey and

GIS assessment improved information available and will allow watershed stakeholders to make informed decisions regarding future management to address E. coli loading across the watershed. Routine, reconnaissance, and storm monitoring completed over a two year period improved understanding of water quality in space and time across the watershed, but it did not provide sufficient information to pinpoint areas where significant E. coli loading occurred. Evaluation of watershed survey results and GIS data also provided some insight regarding potential sources of *E. coli* contributing to the watershed, but again failed to produce specific source area information. Combined, monitoring data and survey results did illustrate that some sub-watersheds have the potential to contain areas where E. coli concentrations increased considerably between sampling sites. Using this information, an intensive sampling campaign was planned and carried out to identify areas within selected stream segments where E. coli concentrations rapidly increased. Through this assessment, portions of Bee, Burton and Wolf Pen Creeks were found where measured E. coli concentrations increased guickly. As with other monitoring though, this sampling did not specifically identify the source of *E. coli* in these areas. Instead, areas where further investigation by entity personnel is needed were identified. Stormwater and wastewater infrastructure is present in the vicinity of these areas and should be inspected to see if they are contributing to the observed E. coli loads.

This project has provided many useful results that can be utilized by watershed stakeholders when planning management activities to improve local water quality. However, information included in this report is static and may already be irrelevant due to changes occurring daily across the watershed. Much of the watershed survey information documented transient water quality influences that move continually. Wild animals are the epitome of this while dogs are more readily managed. As a result, carrying out activities to address more readily managed source are likely to be most effective. Similarly, changes to watershed infrastructure are near continuous. New development is constantly extending the amount of stormwater and wastewater infrastructure in the watershed. Entities managing this infrastructure are also implementing programs to inspect or test and subsequently repair or replace infrastructure across the watershed. Thus it is very important for each entity in the watershed.

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Attachment 3 – City of Bryan WWTP Performance

Attachment 3 City of Bryan WWTP Performance

	I	Burton Creek WWTP	
E.	coli	Monitoring (CFU/100 mI	.)

	Geomean	Max
Oct-15	24	33
Nov-15	32	37
Dec-15	16	23
Jan-16	28	53
Feb-16	23	67
Mar-16	14	21
Apr-16	95	147
May-16	43	55
Jun-16	83	156
Jul-16	43	63
Aug-16	28	43
Sep-16	3	8





October 30, 2016

Mr. Ryan Byer, Coordinator Order Compliance Team, MC 149A Enforcement Division Texas Commission on Environmental Quality P.O. Box 13087 Austin, TX 78711-3087

Subject: 2016 Annual Report for SSOI Agreement Case No. 37476

This letter is to document the progress the City of Bryan has made on provisions 2 through 6 of the Sanitary Sewer Agreement signed on August 11, 2009.

Provision No. 2: The City shall implement and complete the list of projects contained within Attachment A of the Agreement.

Progress: Please find attached in Appendix A, a table that summarizes the progress of the projects to date included in the compliance agreement. Also included in this table is a final estimate of the completed length of each project for comparison to the original estimated length as listed in the Agreement. The City has acquired the easement for the Wells Fargo project. Engineering staff is wrapping up the design and it should be ready to bid by January 2017. The easement had been held up by the land owner. Appendix A has also been expanded to include projects previously completed as well as projects that are under construction which were not a part of the original compliance agreement.

Provision No. 3: Establish the causes of SSOs by:

- i. Utilizing GIS mapping to develop a visual reference of SSOs by type and location
- ii. Establish performance indicators and benchmarks

Progress: Please find attached in Appendix B, a map showing a sample of the GIS mapping used to locate public and private SSOs by type and location. The map is for reference and visual identification of causes.

Below is a list of performance measures. These measures have been incorporated into the work order system so they can be viewed in GIS for reference purposes. Tracking these measures over the timeframe of this agreement will allow the effectiveness of the program to be measured and benchmarks established.

1. Number of customer sewer complaints

FY 2015 – 3 FY 2016 – 3

- 2. Number of stoppages by:
 - (a) Cause: roots, grease, debris, pipe failure, rain water infiltration.
 - (b) Location: private vs. public.

FY15	
Cause	Number
Infrastructure Failure	15
Private Problem	187
Private Sewer Stop	39
Rain Water Infiltration	38
Unstopped Sewer (Debris)	277
Unstopped Sewer (Grease)	223
Unstopped Sewer (Private)	7
Unstopped Sewer (Roots)	27
Total:	813
FY16	
FY16 Cause	Number
FY16 Cause	Number 11
FY16 Cause Infrastructure Failure Private Problem	Number 11 200
FY16 Cause Infrastructure Failure Private Problem Private Sewer Stop	Number 11 200 14
FY16 Cause Infrastructure Failure Private Problem Private Sewer Stop Rain Water Infiltration	Number 11 200 14 27
FY16 Cause Infrastructure Failure Private Problem Private Sewer Stop Rain Water Infiltration Unstopped Sewer (Debris)	Number 11 200 14 27 372
FY16 Cause Infrastructure Failure Private Problem Private Sewer Stop Rain Water Infiltration Unstopped Sewer (Debris) Unstopped Sewer (Grease)	Number 11 200 14 27 372 177
FY16 Cause Infrastructure Failure Private Problem Private Sewer Stop Rain Water Infiltration Unstopped Sewer (Debris) Unstopped Sewer (Grease) Unstopped Sewer (Private)	Number 11 200 14 27 372 177 3
FY16 Cause Infrastructure Failure Private Problem Private Sewer Stop Rain Water Infiltration Unstopped Sewer (Debris) Unstopped Sewer (Grease) Unstopped Sewer (Private) Unstopped Sewer (Roots)	Number 11 200 14 27 372 177 3 42

- 3. Number of dry weather overflows by:
 - (a) Volume: <100 gallons; 100 to 999 gallons; 1000 to 9999 gallons; >10,000 gallons.
 - (b) Cause: roots, grease, debris, pipe failure, pump station failure, capacity.
 - (c) Location Private versus Public.

See appendix C

- 4. Number of wet weather overflows by:
 - (a) Volume: <100 gallons; 100 to 999 gallons; 1000 to 9999 gallons; >10,000 gallons.
 - (b) Cause: roots, grease, debris, pipe failure, pump station failure, capacity.
 - (c) Location Private versus Public.

See appendix C

5. Average response time:

(a) SSO - 35:20 min: sec

See appendix D

6. Number of cave-ins -11

- 7. Number of pump station failures by:
 - (a) Electrical supply failure.
 - (b) Electrical component failure.
 - (c) Pump failure.
 - (d) Blockage.

Pump Station	Failure Type	Date
Verde	Electrical supply failure	10/16/2015
East Villa Maria	Pump failure	10/20/2015
Verde	Electrical supply failure	10/24/2015
Yegua	Electrical component failure	10/27/2015
Verde	Electrical supply failure	10/30/2015
Verde	Blockage	11/2/2015
158 Liftstation	Electrical supply failure	11/17/2015
East Villa Maria	Electrical supply failure	1/29/2016
Saddlewood	Electrical supply failure	1/29/2016
Yegua	Electrical supply failure	1/29/2016
East Villa Maria	Electrical supply failure	4/06/2016
Verde	Electrical supply failure	4/27/2016
Tiffany Park	Electrical supply failure	5/21/2016
Tiffany Park	Electrical component failure	5/21/2016
Tiffany Park	Electrical supply failure	5/26/2016
158 Liftstation	Electrical supply failure	5/26/2016
Tiffany Park	Electrical supply failure	5/27/2016
158 Liftstation	Electrical supply failure	5/27/2016
Mumford	Electrical supply failure	6/25/2016
Verde	Electrical supply failure	6/28/2016
East Villa Maria	Electrical supply failure	6/28/2016
Yegua	Electrical supply failure	6/28/2016
Saddlewood	Electrical supply failure	6/28/2016
Winchester	Electrical supply failure	6/28/2016
Briarcrest	Electrical supply failure	6/28/2016
Mumford	Electrical supply failure	6/28/2016
Saddlewood	Pump failure	7/20/2016
Mumford	Electrical supply failure	7/21/2016
Verde	Electrical supply failure	7/25/2016
Saddlewood	Electrical supply failure	7/25/2016
Yegua	Electrical supply failure	7/25/2016
East Villa Maria	Electrical supply failure	7/25/2016
Verde	Blockage	8/4/2016

Pump Station	Failure Type	Date
East Villa Maria	Electrical component failure	8/23/2016
Plant 2 Liftstation	Pump failure	9/8/2016
Plant 2 Liftstation	Pump failure	9/17/2016
Flygt 1	Electrical component failure	9/22/2016

8. Miles of sewer line smoke tested:

Smoke Testing	CLEANOUTS	PRIVATE SIDE	CITY SEWER MAIN	MANHOLES	Miles
(FY 2016)	Broken/Missing	Defects	Defects	Broken/Damaged	of Pipe
	60	130	51	1	51.4

Miles per fiscal year: FY 2015: 45 FY 2014: 54

The City of Bryan continues to proactively smoke test the collection system. For fiscal years 2014 to 2016, staff smoke tested 11% to 14% of the collection system per year looking for problems on both the public and private side. Staff has implemented a program to ensure all private defects are corrected by providing a financial mechanism that residents can utilize to fund repairs. With the majority of the problems on the private side, addressing these issues is paramount to reducing I&I into the collection system and the resulting wet weather overflows.

9. Miles of sewer line cleaned (Goal is 20% of the system or approximately 80 miles):

Roughly 76 of the 400 miles, or 19% of the system, were cleaned in FY 2016. For this report, the length of line as mapped in GIS was used to determine the total, rather than the estimated footage provided by field crews.

Miles per fiscal year:	FY 2015: 84 or 22%
	FY 2014: 87 or 23%

10. Number of manholes repaired - 35 (FY 2016)

11. Number of Grease Traps:

- (a) Inspections -189 (FY 2016)
- (b) Violations -0 (FY 2016)
- 12. Number of employees taking certification exams, as well as those passing exams.
 - (a) Track those taking exams as a requirement of job versus those wishing to obtain higher certifications.

Employee Name	Exam	Results
BALLARD, BRANDON	WASTEWATER COLLECTION OPERATOR I	FAIL
CLARK, COLIN	WASTEWATER COLLECTION OPERATOR I	PASS
DIAZ, OSCAR	WATER OPERATOR D	FAIL
JIMENEZ, OMAR	WASTEWATER TREATMENT OPERATOR D	FAIL
JIMENEZ, OMAR	WATER OPERATOR D	FAIL
LELAND, ELI	WASTEWATER COLLECTION OPERATOR I	PASS
LOEHR, WILLIAM	WASTEWATER COLLECTION OPERATOR I	PASS
LOEHR, WILLIAM	WATER OPERATOR D	PASS
MARTINEZ, JAMES	WASTEWATER TREATMENT OPERATOR D	PASS
MARTINEZ, JAMES	WATER OPERATOR D	PASS
RODRIGUEZ, ERIC	WASTEWATER TREATMENT OPERATOR D	PASS
RODRIGUEZ, ERIC	WATER OPERATOR D	FAIL
SEELY, CHAD	WATER OPERATOR D	N/A*
SWAN, DARICK	WASTEWATER COLLECTION OPERATOR I	PASS

*Results not posted yet

Provision No. 4: The City shall implement its Capacity, Management, and Operation Maintenance (CMOM) Program and review the SSO emergency response plan.

Progress: The CMOM document has been completed. The SSO emergency response plan has been incorporated into the CMOM report. Staff is utilizing this document to guide them in the management of the collection system as well as make operational changes.

Provision No. 5: The City shall implement its detailed I/I reduction project approach.

Progress: The City is utilizing the information collected during its I/I analysis to evaluate public and private defects within the system. This information helps focus repair locations to minimize the amount of rainwater entering the collection system. The larger line replacements are being designed, bid, and constructed by contractors. Smaller repairs are being completed by in-house staff. Staff is also smoke testing high priority basins based on the I/I study, as well as mobile home parks to identify public and private defects and missing private cleanout caps. The City continues to do visual inspections of the system during rain events to identify system problems. When other problematic areas are brought to our attention, staff is smoke testing, visually inspecting the pipe, and developing solutions to identify and eliminate the problem.

Provision No. 6: The City shall evaluate the effectiveness of its corrective actions on a yearly basis.

Progress: The City continues to evaluate the progress of the program through field observations, work orders, and reports from citizens. Staff reviews work order history to determine if problems are still evident. This past year, several projects were completed within the collection system. Staff will continue monitoring areas associated with the projects within this Agreement, as well as areas not included. The effectiveness of the corrective actions will be documented through the duration of this agreement.

The City of Bryan experienced 42 overflows in 2016. A review of the data from 2011 to present shows the most significant decrease in overflows in the "pipe debris" category. This may be attributed to the cleaning program the City implemented on cleaning the collection system. While the first year in 2010 did not meet expectations with respect to the number of miles cleaned, a more focused effort from 2011 to the present was closer to the goal for the number of miles of pipe cleaned. This area of work will continue to be monitored for its effectiveness on the overflows and sewer stops within the system. The City of Bryan will continue to be proactive in its efforts of smoke testing the system and identifying defects and proactively addressing the defects both on the private and public side of the sewer system.

This is a summary report of the actions taken by the City of Bryan to comply with the Agreement. If you should have any questions or need additional information related to information contained within this letter, please contact me at (979) 209-5929 or jbarfknecht@bryantx.gov.

Best Regards,

Bathnecht

Jayson Barfknecht, P.E., Ph.D. Public Works Director

XC: Mr. Richard Monreal, Manager, Water Section, TCEQ Waco Regional Office
Appendix A

List of Projects

Project No.	Project Name	Basin	Complete by Date	Status	Length (ft)	Completed
S08-28	Tanglewood Park	Burton Creek	1-May-2009	Complete	1400	1440
S08-29	Yellowstone	Still Creek	1-May-2009	Complete	550	540
S08-01	Bonham Park	Still Creek	1-Jul-2009	Complete	675	1030
S08-30	American Legion	Burton Creek	1-Aug-2009	Complete	2100	2240
	Evaluation of Burton Creek	Burton Creek	1-May-2009	Complete		
S08-10	Washington/24th	Burton Creek	1-Jan-2010	Complete	550	750
S08-31	North Brazos	Still Creek	1-Jan-2010	Complete	450	1702
S08-41	Manhole Rehab	Burton Creek	1-May-2010	Complete		
S08-32	McHaney/Old Hearne	Still Creek	1-May-2010	Complete	2175	3120
S08-33	Colson	Burton Creek	1-Aug-2010	Complete	2175	3014
S08-20	Johnson/Cole	Burton Creek	1-May-2011	Complete	1275	1133
S08-42	Manhole Rehab Ph 2	Burton Creek	1-May-2011	Complete		
S08-23	Parker	Still Creek	1-May-2011	Complete	975	2514
S08-21	Henderson Park	Still Creek	1-Oct-2011	Complete	3700	3643
S08-25	Commerce Street	Still Creek	1-Oct-2011	Complete	4475	9736
S08-44	Beck Street	Still Creek	1-Dec-2011	Complete	5700	5789
S08-34	Downtown Ph 3	Still Creek	1-Jan-2012	Complete	700	1756
S08-16	Thompson's Creek WWTP	Turkey Creek	1-May-2012	Complete		
S08-43	Manhole Rehab Ph 3	Burton Creek	1-May-2013	Complete		
S08-35	Hutchins	Burton Creek	1-May-2013	Complete	1075	2070
S08-08	Louisiana	Still Creek	1-Jan-2014	Complete	1975	948
S08-36	Indiana	Still Creek	1-Jan-2014	Complete	500	494
S08-19	Wells Fargo	Burton Creek	1-Oct-2014	In Design	825	
S08-37	Still Creek Phase 3	Still Creek	1-Oct-2014	Complete	6475	8675
S08-38	Missouri	Still Creek	1-Aug-2015	Complete	625	731
S08-39	Arizona	Still Creek	1-Aug-2015	Complete	650	550
S08-40	Minnesota	Still Creek	1-Aug-2015	Complete	475	595
S08-07	Montana	Still Creek	1-Aug-2015	Complete	1000	485
S08-06	Oklahoma	Still Creek	1-Aug-2015	Complete	1000	1084
S08-05	Alabama	Still Creek	1-Aug-2015	Complete	1000	1079
S08-04	Georgia	Still Creek	1-Aug-2015	Complete	1175	1215
S08-03	Tennessee	Still Creek	1-Aug-2015	Complete	1550	1504
				Totals:	45,225	57,837
	Projects added t	hat were not par	t of the original Compli	ance Agreement		
	Project Name	Basin	Complete by Date	Status	Length (ft)	Completed Length (ft)
	Peale Street	Still Creek	2010	Complete		580
	Bennett Street	Burton Creek	2010	Complete		1650
*	South College	Burton Creek	2011	Complete		615
	College Main Street	Burton Creek	2013	Complete		937
	Glenn Oaks Drive	Burton Creek	2014	Complete		700
	Memorial Drive	Burton Creek	2014	Complete		750
	Bonham Drive	Still Creek	2014	Complete		647

			Overall Totals:	68,315	69,042
			Totals:	23,090	11,205
Graham Dr	Still Creek	2016/2017	In Construction	775	
Freeman Av	Burton Creek	2016/2017	In Construction	770	
Broadmoor Dr	Burton Creek	2016/2017	In Construction	735	
Barak Ln	Burton Creek	2016/2017	In Construction	670	
Carter Creek Pkwy 2	Burton Creek	2016/2017	In Construction	490	
Dona Dr	Burton Creek	2016/2017	In Construction	950	
Ruskin Dr	Burton Creek	2016/2017	In Construction	875	
Bristol Street	Burton Creek	2016/2017	In Construction	765	
Kent Street 3	Burton Creek	2016/2017	In Construction	740	
Kent Street 2	Burton Creek	2016/2017	In Construction	485	
Oxford Street	Burton Creek	2016/2017	In Construction	480	
Devonshire Street	Burton Creek	2016/2017	In Construction	705	
Kent Street	Burton Creek	2016/2017	In Construction	295	
Villa Maria Rd	Burton Creek	2016/2017	In Construction	1185	
Avon Street	Burton Creek	2016/2017	In Construction	550	
Esther 2 Blvd	Burton Creek	2016/2017	In Construction	1825	
Carter Creek Pkwy	Burton Creek	2016/2017	In Construction	1350	
Esther Blvd	Burton Creek	2016/2017	In Construction	450	
Skrivanek Dr	Burton Creek	2016/2017	In Construction	1510	
Garden Ln	Burton Creek	2016/2017	In Construction	1335	
Sims Ave	Still Creek	2016/2017	In Construction	540	
Logan Ave	Still Creek	2016/2017	In Construction	400	
Sterling Ave	Still Creek	2016/2017	In Construction	600	
Randolph Ave	Still Creek	2016/2017	In Construction	490	
Congress St	Still Creek	2016/2017	In Construction	500	
27 [™] Street	Still Creek	2016/2017	In Construction	130	
Baylor Ave	Still Creek	2016/2017	In Construction	485	
Reed Ave	Still Creek	2016/2017	In Construction	550	
Alamo Ave	Still Creek	2016/2017	In Construction	560	
West 26 th Street	Still Creek	2016/2017	In Construction	1895	
Briar Bend Ct	Burton Creek	2016	Complete		450
Avondale Ave	Burton Creek	2015	Complete		300
Pauline Street	Still Creek	2015	Complete		540
Helena Street	Burton Creek	2015	Complete)	900
E. 23 rd Street	Burton Creek	2015	Complete		980
McCulloch Street	Still Creek	2015	Complete		1550
Coulter Drive	Burton Creek	2014	Complete		510
Villa Maria Rd	Burton Creek	2014	Complete		96

Note: Wells Fargo is delayed due to easement acquisition. The City anticipates this will be complete in 2017.





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Appendix C



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Wet Weath	er			
Year	Cause	Location	Volume (gallons)	Number of Occurrences
2015				
	Grease	Public	< 100	0
	Grease	Public	100 to 999	0
	Grease	Public	1000 to 9999	0
	Grease	Public	>10,000	0
	Roots	Public	< 100	0
	Roots	Public	100 to 999	0
	Roots	Public	1000 to 9999	0
	Roots	Public	>10,000	0
	Pipe Capacity	Public	< 100	3
	Pipe Capacity	Public	100 to 999	3
	Pipe Capacity	Public	1000 to 9999	8
	Pipe Capacity	Public	>10,000	1
	Pump Failure	Public	< 100	0
	Pump Failure	Public	100 to 999	0
	Pump Failure	Public	1000 to 9999	0
	Pump Failure	Public	>10,000	0
	Pipe Debris	Public	< 100	0
	Pipe Debris	Public	100 to 999	0
	Pipe Debris	Public	1000 to 9999	0
	Pipe Debris	Public	>10,000	0
	Total			15
2016				
	Grease	Public	< 100	0
	Grease	Public	100 to 999	0
	Grease	Public	1000 to 9999	0
	Grease	Public	>10,000	0
	Roots	Public	< 100	0
	Roots	Public	100 to 999	0
	Roots	Public	1000 to 9999	0
	Roots	Public	>10,000	0
	Pipe Capacity	Public	< 100	2
	Pipe Capacity	Public	100 to 999	0
	Pipe Capacity	Public	1000 to 9999	0
	Pipe Capacity	Public	>10,000	0
	Pump Failure	Public	< 100	0
	Pump Failure	Public	100 to 999	0
	Pump Failure	Public	1000 to 9999	0
	Pump Failure	Public	>10,000	0
	Pipe Debris	Public	< 100	0
	Pipe Debris	Public	100 to 999	0
	Pipe Debris	Public	1000 to 9999	0
	Pipe Debris	Public	>10,000	0
	Total			2

Dry Weat	her			
Year	Cause	Location	Volume (gallons)	Number of Occurrences
2015				
	Grease	Public	< 100	27
	Grease	Public	100 to 999	7
	Grease	Public	1000 to 9999	0
	Grease	Public	>10,000	0
	Roots	Public	< 100	0
	Roots	Public	100 to 999	1
	Roots	Public	1000 to 9999	0
	Roots	Public	>10,000	0
	Pipe Failure	Public	< 100	2
	Pipe Failure	Public	100 to 999	0
	Pipe Failure	Public	1000 to 9999	0
	Pipe Failure	Public	>10,000	0
	Pump Failure	Public	< 100	0
	Pump Failure	Public	100 to 999	0
	Pump Failure	Public	1000 to 9999	0
	Pump Failure	Public	>10,000	0
	Pipe Debris	Public	< 100	3
	Pipe Debris	Public	100 to 999	0
	Pipe Debris	Public	1000 to 9999	0
	Pipe Debris	Public	>10,000	0
	Total			40
2016			ي. ا	
	Grease	Public	< 100	22
	Grease	Public	100 to 999	9
	Grease	Public	1000 to 9999	0
	Grease	Public	>10,000	0
	Roots	Public	< 100	0
	Roots	Public	100 to 999	0
	Roots	Public	1000 to 9999	0
	Roots	Public	>10,000	0
	Pipe Failure	Public	< 100	3
	Pipe Failure	Public	100 to 999	2
	Pipe Failure	Public	1000 to 9999	0
	Pipe Failure	Public	>10,000	0
	Pump Failure	Public	< 100	0
	Pump Failure	Public	100 to 999	0
	Pump Failure	Public	1000 to 9999	0
	Pump Failure	Public	>10,000	0
	Pipe Debris	Public	< 100	3
	Pine Debris	Public	100 to 999	0
	Pipe Debris	Dublic	1000 to 999	0
	Pipe Debris	Public	210 000	0
	Pipe Debris	PUDIIC	>10,000	U
	Total			39

Appendix D



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Request #	Completion	Job #	Category	Task Code	Call Time	Start Time	Response Time
WF0573038	10/21/2015	2	SSO	DPU	9:06:53	9:30:00	0:23:07
WF0573612	10/24/2015	4	SSO	IIPU	12:45:00	14:30:00	1:45:00
WF0573637	10/24/2015	3	SSO	IIPU	7:15:00	7:35:00	0:20:00
WF0573985	10/28/2015	2	SSO	GPU	8:05:24	8:30:00	0:24:36
WF0574067	10/28/2015	2	SSO	GPU	14:01:39	14:20:00	0:18:21
WF0574189	10/28/2015	2	SSO	GPU	20:00:00	20:30:00	0:30:00
WF0574609	11/3/2015	2	SSO	GPU	7:39:54	8:05:00	0:25:06
WF0574620	11/3/2015	2	SSO	GPU	9:16:00	9:40:00	0:24:00
WF0575005	11/5/2015	2	SSO	DPU	9:30:59	9:50:00	0:19:01
WF0575120	11/5/2015	2	SSO	GPU	17:00:00	17:30:00	0:30:00
WF0576483	11/17/2015	2	SSO	IIPU	11:42:07	11:55:00	0:12:53
WF0576531	11/17/2015	2	SSO	PFPU	13:57:29	14:15:00	0:17:31
WF0576539	11/17/2015	2	SSO	PFPU	14:10:01	15:10:00	0:59:59
WF0577890	12/2/2015	2	SSO	DPU	7:58:45	8:25:00	0:26:15
WF0579138	12/8/2015	2	SSO	GPU	9:15:00	9:15:00	0:00:00
WF0579380	12/14/2015	2	SSO	GPU	8:38:55	9:20:00	0:41:05
WF0579926	12/15/2015	2	SSO	GPU	7:50:00	7:50:00	0:00:00
WF0579937	12/16/2015	2	SSO	GPU	12:59:06	14:00:00	1:00:54
WF0585982	12/30/2015	2	SSO	GPU	12:53:00	13:50:00	0:57:00
WF0581808	12/31/2015	2	SSO	GPU	15:00:00	20:10:00	5:10:00
WF0581832	1/1/2016	2	SSO	GPU	10:55:00	11:30:00	0:35:00
WF0581836	1/3/2016	3	SSO	GPU	9:50:00	10:20:00	0:30:00
WF0586056	2/3/2016	2	SSO	GPU	11:24:45	11:55:00	0:30:15
WF0586346	2/4/2016	2	SSO	GPU	17:00:00	17:40:00	0:40:00
WF0586364	2/5/2016	2	SSO	PFPU	10:01:41	10:45:00	0:43:19
WF0586507	2/7/2016	2	SSO	GPU	12:50:00	13:05:00	0:15:00
WF0589191	2/25/2016	2	SSO	DPU	13:16:03	13:30:00	0:13:57
WF0589261	2/24/2016	2	SSO	GPU	19:45:00	20:00:00	0:15:00
WF0589654	2/26/2016	2	SSO	GPU	6:30:00	7:40:00	1:10:00
WF0589466	2/27/2016	2	SSO	GPU	13:42:03	13:45:00	0:02:57
WF0589588	3/1/2016	2	SSO	PFPU	8:59:29	10:55:00	1:55:31
WF0590966	3/10/2016	1	SSO	GPU	7:30:00	8:15:00	0:45:00
WF0591252	3/11/2016	1	SSO	GPU	17:00:00	18:00:00	1:00:00
WF0591042	3/11/2016	2	SSO	IIPU	12:17:05	12:35:00	0:17:55
WF0591745	3/17/2016	2	SSO	DPU	10:10:03	10:20:00	0:09:57
WF0594185	4/4/2016	3	SSO	GPU	13:21:50	13:50:00	0:28:10
WF0594429	4/4/2016	2	SSO	GPU	18:00:00	18:15:00	0:15:00
WF0595450	4/12/2016	2	SSO	GPU	15:54:46	16:00:00	0:05:14
WF0596824	4/22/2016	2	SSO	GPU	9:15:10	9:40:00	0:24:50

WF0598335	5/2/2016	2	SSO	GPU	10:45:00	12:00:00	1:15:00		
WF0623613	5/12/2016	2	SSO	OTPU	0:00:00	0:00:00	*No Call Times		
WF0601341	5/20/2016	2	SSO	GPU	9:35:00	9:50:00	0:15:00		
WF0601337	5/21/2016	2	SSO	GPU	19:00:00	20:20:00	1:20:00		
WF0601852	5/27/2016	2	SSO	IIPU	10:20:00	10:30:00	0:10:00		
WF0623611	5/31/2016	2	SSO	GPU	9:15:00	10:15:00	1:00:00		
WF0604913	5/31/2016	2	SSO	PFPU	8:00:00	8:15:00	0:15:00		
WF0602393	6/1/2016	2	SSO	GPU	8:23:54	8:35:00	0:11:06		
WF0602973	6/6/2016	2	SSO	GPU	13:02:42	13:20:00	0:17:18		
WF0602999	6/6/2016	2	SSO	GPU	13:53:52	14:20:00	0:26:08		
WF0604765	6/15/2016	2	SSO	GPU	14:09:56	14:20:00	0:10:04		
WF0605768	6/21/2016	2	SSO	GPU	13:30:00	13:45:00	0:15:00		
WF0606079	6/24/2016	2	SSO	DPU	7:53:15	8:15:00	0:21:45		
WF0606292	6/24/2016	2	SSO	GPU	17:00:00	17:25:00	0:25:00		
WF0608342	7/11/2016	2	SSO	GPU	11:33:41	12:00:00	0:26:19		
WF0609255	7/18/2016	2	SSO	GPU	8:33:28	8:50:00	0:16:32		
WF0610078	7/20/2016	2	SSO	GPU	11:32:42	12:40:00	1:07:18		
WF0610625	7/26/2016	2	SSO	PFPU	15:08:15	15:25:00	0:16:45		
WF0611645	8/3/2016	2	SSO	DPU	10:54:38	11:05:00	0:10:22		
WF0613466	8/11/2016	2	SSO	GPU	16:30:00	16:50:00	0:20:00		
WF0614979	8/24/2016	2	SSO	GPU	12:30:00	13:15:00	0:45:00		
WF0615639	8/27/2016	2	SSO	GPU	10:40:00	10:55:00	0:15:00		
WF0619534	9/22/2016	2	SSO	PFPU	16:45:00	17:20:00	0:35:00		
	Average Response Time: 0:35:20								
*These response times were not included in the average.									



Attachment 5 – Code Enforcement Performance

	FY2016
Abandoned Vehicle	10
Junk Vehicles	435
Weeds & Grass	2,104
Nuisances (Other)	250
Parking Violation	316
Signs	113
Waste Collection	250
Water/Sewer	177
Graffiti	8
Zoning	161
Other	14
	3,838

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ORDINANCE NO. 2133

AN ORDINANCE OF THE CITY OF BRYAN, TEXAS, AMENDING CHAPTER 46 **"STORMWATER MANAGEMENT" OF THE CITY OF BRYAN CODE OF ORDINANCES, BY** REPEALING AND REPLACING ARTICLE III. MUNICIPAL **STORMWATER** MANAGEMENT, OF THE BRYAN CITY CODE; REPEALING ALL ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH; PROVIDING A SAVINGS CLAUSE; PROVIDING A SEVERABILITY CLAUSE; FINDING AND DETERMINING THAT THE MEETINGS AT WHICH THE ORDINANCE IS PASSED ARE OPEN TO THE PUBLIC AS **REOUIRED BY LAW; PROVIDING FOR CODIFICATION; PROVIDING FOR PENALTIES; PROVIDING FOR PUBLICATION IN THE NEWSPAPER AND PROVIDING AN EFFECTIVE** DATE.

WHEREAS, the City of Bryan is permitted through the Texas Pollution Discharge Elimination System (TPDES) for management and operation of its municipal separate storm sewer system (MS4); and

WHEREAS, the City is required through its TPDES permit to maintain legal authority necessary to implement and enforce the requirements of its TPDES permit;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF BRYAN:

1.

That Chapter 46, "Stormwater Management" of the Bryan Code of Ordinances is hereby amended by repealing Article III, "Municipal Stormwater Management" in its entirety and replacing with the following:

Article III. MUNICIPAL STORWMATER MANAGEMENT

DIVISION 1. IN GENERAL

Sec. 46-100. Purpose and intent

The purpose of this Article is to protect the public health, safety, environment and general welfare through the regulation of non-stormwater discharges into the municipal separate storm system (MS4) to the maximum extent practicable as required by Federal Law. This article establishes methods for controlling the introduction of pollutants into the municipal separate storm sewer system in order to comply with requirements of the Texas Pollution Discharge Elimination System (TPDES) permit. The objectives of this Article are to:

- (1) Regulate the contribution of pollutants into the MS4 system by any person or entity;
- (2) Prohibit illicit discharges and illegal connections to the MS4;
- (3) Prevent non-stormwater discharges, generated as a result of spills, inappropriate dumping or disposal, into the MS4; and,
- (4) To enforce legal authority to carry out all inspections, surveillance, monitoring and enforcement procedures necessary to ensure compliance with the City of Bryan s TPDES permit.

Sec. 46-101-46-109. Reserved.

DIVISION 2. DEFINITIONS

Sec. 46-110. Definitions

In this article:

Administrator shall mean the public works director of the City of Bryan or designee.

Best management practices (BMP) shall mean schedules of activities, prohibitions of practices, general housekeeping practices, pollution prevention and educational practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants directly or indirectly to stormwater receiving waters, or municipal separate storm system. BMPs also include treatment practices, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw materials storage.

City shall mean the City of Bryan.

City manager shall mean city manager of the City of Bryan or designee.

Commercial pertains to any business, trade, industry, or other activity engaged in for profit activities.

Common plan of development means a construction activity that is completed in separate stages, separate phases, or in combination with other construction activities. A common plan of development (also known as a "common plan of development or sale") is identified by the documentation for the construction project that identifies the scope of the project, and may include plats, blueprints, marketing plans, contracts, building permits, a public notice or hearing, zoning requests, or other similar documentation and activities. A common plan of development does not necessarily include all construction projects within the jurisdiction of a public entity (e.g., a city or university). Construction of roads or buildings in different parts of the jurisdiction would be considered separate "common plans," with only the interconnected parts of a project being considered part of a "common plan" (e.g., a building and its associated parking lot and driveways, airport runway and associated taxiways, a building complex, etc.). Where discrete construction projects occur within a larger common plan of development or sale but are located ¼ mile or more apart, and the area between the projects is not being disturbed, each individual project can be treated as a separate plan of development or sale, provided that any interconnecting road, pipeline or utility project that is part of the same "common plan" is not included in the area to be disturbed.

Construction or construction activity shall mean soil disturbance activities, including clearing, grading, and excavating; and does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site (e.g., the routine grading of existing dirt roads, asphalt overlays of existing roads, the routine clearing of existing right-of-ways, and similar maintenance activities). Regulated construction activity is defined in terms of small and large construction activity.

Construction site notice (CSN) means the statewide form that must be completed and displayed on small and large construction activity as defined by this section.

Development Permit means the city permit issued for any construction activity within the City of Bryan corporate limits or within the extra-territorial jurisdiction of the city, by which compliance with stormwater quality regulations are tracked.

Discharge is any addition or introduction of any pollutant, stormwater, or any other substance whatsoever into the MS4 or into waters of the United States.

Discharger is any person who causes, allows, permits, or is otherwise responsible for a discharge, including, without limitation, any operator of a construction site or industrial facility.

Facility is any building, structure, installation, process, or activity from which there is or may be a discharge of a pollutant.

Garbage shall mean putrescible animal and vegetable waste materials from the handling, preparation, cooking, or consumption of food, including waste materials from markets, storage facilities, and the handling and sale of produce and other food products.

Harmful quantity is the amount of any substance that will cause pollution of waters of the State, state water, or MS4.

Household hazardous waste (HHW) is any material generated in a household (including single and multiple residences, hotels, and motels, camp grounds, picnic ground, and day use recreational areas) by a consumer which, except for the exclusion provided in 40 CFR 261.4(b)(1), would be classified as a hazardous waste 40 CFR Part 261.

Hazardous materials are any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

Illicit discharge is any direct or indirect non-stormwater discharge to the MS4, except as exempted in section 46-120 herein.

Illicit connection means any drain or conveyance connecting an illicit discharge directly to the MS4, whether on the surface or subsurface, which allows an illicit discharge to enter the stormwater system, including, but not limited to, any conveyances that allow any non-stormwater discharge including sewage, process wastewater, and wash water to enter the storm drain system and any connections to the storm drainage system from indoor drains and sinks, regardless of whether said drain or connection had been previously allowed, permitted, or approved by an authorized enforcement agency or, any drain or conveyance system which has not been documented in plans, maps, or equivalent records and approved by an authorized enforcement agency.

Industrial activity means any of the ten (10) categories of industrial activities included in the definition of "stormwater discharges associated with industrial activity" as defined in the TPDES multi sector general permit.

Industrial waste is any waterborne liquid or solid substance that results from any process of industry, manufacturing, mining, production, trade, or business.

Large construction activity means construction activities including clearing, grading, and excavating that result in land disturbance of equal to or greater than five (5) acres of land. Large construction activity also includes the disturbance of less than five (5) acres of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than five (5) acres of land. Large construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site (for example, the routine grading of existing dirt roads, asphalt overlays of existing roads, the routine clearing of existing right-of-ways, and similar maintenance activities.)

Municipal separate storm sewer system (MS4) is the system of conveyances, including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) owned and operated by the city and designed or used for collecting or conveying stormwater, and which is not used for collecting or conveying sewage.

Notice of intent (NOI) means a written submission to the executive director of the TCEQ (Texas Commission of Environmental Quality) from an applicant requesting coverage under a TCEQ general permit requesting coverage.

Notice of change (NOC) means a written submission to the executive director of the TCEQ (Texas Commission on Environmental Quality) from a discharge authorized under a TCEQ general permit requesting change of coverage.

Notice of termination (NOT) means a written submission to the executive director of the TCEQ (Texas Commission of Environmental Quality) from a discharger authorized under a TCEQ general permit requesting termination of coverage.

Non-stormwater discharge is any discharge to the stormwater drain system that is not composed entirely of stormwater runoff.

Person shall mean any individual, association, organization, partnership, firm, corporation, or other entity recognized by law and acting as either the owner or the owner's agent.

Pollutant shall mean anything that causes or contributes to pollution. Pollutants may include, but are not limited to the following: paints, varnishes, and solvents; oil and other automotive or marine vessel fluids; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects; articles and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coli, form and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; and noxious or offensive matter of any kind.

Pollution (from Texas Water Code (TWC) §26.001(14)) shall mean the alteration of the physical, thermal, chemical, or biological quality of, or the contamination of, any surface water in the state that renders the water harmful, detrimental, or injurious to humans, animal life, vegetation, or property or to public health, safety, or welfare, or impairs the usefulness or the public enjoyment of the water for any lawful or reasonable purpose.

Premises shall mean any building, lot, parcel of land, or portion of land whether improved or unimproved, including adjacent sidewalks and parking strips.

Public owned treatment works (POTW) means sewage or wastewater treatment works as defined by the Federal Clean Water Act and owned by the city. The definition includes any devices or systems used in the collection, storage, treatment, recycling, and reclamation of sewage sludge or industrial wastes of a liquid nature and any conveyances, which convey wastewater to a treatment plant.

Release shall mean any spilling, leakage, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the municipal separate stormwater system (MS4) or the waters of the United States.

Small construction activity means construction activities including clearing, grading, and excavating that result in land disturbance of equal to or greater than one (1) acre and less than five (5) acres of land. Small construction activity also includes the disturbance of less than one (1) acre of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than one (1) and less than five (5) acres of land. Small construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site (for example, the routine grading of existing dirt roads, asphalt overlays of existing roads, the routine clearing of existing right-of-ways, and similar maintenance activities.)

Stormwater is any surface flow, runoff, and drainage consisting entirely of water from any form of natural precipitation, and resulting from such precipitation.

Stormwater pollution prevention plan (SWP3) shall mean a document that describes the best management practices and activities to be implemented by a person or entity to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to stormwater, stormwater conveyances system, and/or receiving waters to the maximum extent practicable. Such plan shall include an erosion and sedimentation control plan specific to the property the SWP3 is intended to cover.

Texas Pollutant Discharge Elimination System (TPDES) shall mean the regulatory program delegated to the State of Texas by the EPA pursuant to 33 USC § 1342(b).

Uncontaminated shall mean not containing a harmful quantity of any substance.

Vehicle shall mean any object used for transportation of persons or cargo, regardless of whether self-propelled or attached to another vehicle for transport.

Wastewater means liquid and water-carried wastes and sewage from residential dwellings, commercial buildings, institutions, and industrial or manufacturing facilities, whether treated or untreated, which are contributed to the POTW.

Waters of the United States means:

- (1) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- (2) All interstate waters, including interstate wetlands;
- (3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds that the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:

- (a) which are or could be used by interstate or foreign travelers for recreational or other purposes;
- (b) from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
- (c) which are used or could be used for industrial purposes by industries in interstate commerce;
- (d) all impoundments of waters otherwise defined as waters of the United States under this definition;
- (e) tributaries of waters identified in paragraphs (a) through (d) of this definition; (f) the territorial sea; and
- (f) wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of Clean Water Act (other than cooling ponds as defined in 40 CFR §423.11(m) which also meet the criteria of this definition) are not waters of the U.S. This exclusion applies only to manmade bodies of water which neither were originally created in waters of the U.S. (such as disposal area in wetlands) nor resulted from the impoundment of waters of the U.S. Waters of the U.S. do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

Yard waste is any leaves, grass clippings, yard and garden debris, and brush that results from landscaping maintenance and land-clearing operations.

Secs. 46-111-46-119. Reserved.

DIVISION 3. PROHIBITIONS

Sec. 46-120. Discharge prohibitions.

- (1) *Prohibition of illicit discharges:* It shall be unlawful for any person to discharge or cause to be discharged into the MS4 or watercourses any materials, including, but not limited to pollutants or waters containing pollutants that cause or contribute to a violation of applicable water quality standards, other than stormwater.
- (2) *Exceptions:* The commencement, conduct or continuance of any illicit discharge to the MS4 is prohibited, except as described as follows:
 - (a) Flushing of water lines or other potable water sources;
 - (b) Landscape irrigation or lawn watering;
 - (c) Diverted stream flows;
 - (d) Rising ground water;

- (e) Uncontaminated pumped ground water;
- (f) Foundation or footing drains (not including active groundwater dewatering systems);
- (g) Crawl space pumps;
- (h) Springs;
- (i) Individual residential vehicle washing;
- (j) Natural riparian habitat or wetland flows;
- (k) Firefighting activities;
- (l) Agricultural stormwater runoff;
- (m) Any other water source not containing pollutants.
- (3) Any non-stormwater discharge permitted under a TPDES permit, waiver, or waste discharge order issued to the discharger and administered under the authority of the United States Environmental Protection Agency (EPA) or the Texas Commission on Environmental Quality (TCEQ), provided that the discharger is in full compliance with all the requirements of the permit, waiver, or order and other applicable laws and regulations, and provided further that written approval has been granted for any discharge to the MS4.
- (4) Specific prohibitions and requirements:
 - (a) It shall be unlawful to construct, use, maintain or continue the existence of illicit connections to the MS4.
 - (b) This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under the laws or practices applicable or prevailing at the time of connection.
 - (c) A person is considered to be in violation of this article if the person connects a line conveying sewage to the MS4, or allows such a connection to continue.
 - (d) No person shall dump, spill, leak, pump, pour, emit, empty, discharge, leach, dispose, or otherwise introduce or cause, allow, or permit to be introduced any of the following substances into the MS4:
 - i. Any used motor oil, antifreeze, or any other motor vehicle or marine vehicle fluid;
 - ii. Any industrial waste;
 - iii. Any hazardous waste, including household hazardous waste;
 - iv. Any domestic sewage or septic tank waste, grease trap waste, sludge or grit trap waste;

- v. Any garbage, rubbish, or yard waste;
- vi. Any dumpster or trailer overflow.
- (f) Any wastewater from any of the following sources: commercial carwash facility; vehicle washing, cleaning, or maintenance at any new or used automobile or other vehicle dealership, rental agency, body shop, repair shop, or maintenance facility; or from any washing, cleaning, or maintenance of any business or commercial or public service vehicle, including a truck, bus, or heavy equipment;
- (g) Any wastewater from a commercial mobile power washer or from the washing or cleaning of a building exterior that contains any soap, detergent, degreaser, solvent, or any other harmful cleaning substance;
- (h) Any wastewater from commercial floor, rug, or carpet cleaning;
- (i) Any wastewater from the wash down or other cleaning of pavement that contains any harmful quantity of soap, detergent, solvent. Degreaser, emulsifier, dispersant, or any other harmful cleaning substances; or any wastewater from the wash down or other cleaning of any pavement where any spill, leak, or other release of oil, motor fuel, or other petroleum or hazardous substance has occurred, unless all harmful quantities of such released materials have been previously removed;
- (j) Any effluent from cooling tower, condenser, compressor, emissions scrubber, emissions filter, or the blow down from a boiler;
- (k) Any ready-mixed concrete, mortar, ceramic, or asphalt base material or hydro-mulch material, or from cleaning of vehicles or equipment containing, or used in transporting or applying, such material;
- (1) Any substance or material that will damage, block, or clog the MS4;
- (m) No person shall introduce or cause to be introduced into the MS4 any harmful quantity of sediment, silt, earth, soil, sludge, or other material associated with clearing, grading, excavation, or other construction activities, or associated with land filling or other placement or disposal of soil, rock, or other earth materials, in excess of what could be retained on site or captured by employing sediment and erosion control measures to the maximum extent practicable.
- (n) No person shall connect a line conveying sanitary sewage, domestic or industrial, to the MS4, or allow such a connection to continue.

Sec. 46-121. Emergency suspension of utility service and municipal stormwater drainage system access.

- (1) The city may, without prior notice, suspend water service, sanitary sewer service or MS4 discharge access to a person discharging to the MS4, waters of the United States, when such suspension is necessary to stop an actual or threatened discharge which:
 - (a) Presents or may present imminent and substantial danger to the environment or to the health or welfare of persons; or

- (b) Presents or may present imminent and substantial danger to the MS4 or waters of the United States.
- (2) As soon as is practicable after the suspension of service or MS4 discharge access, the administrator will notify the violator of the suspension and order the violator to cease the discharge immediately.
- (3) If the violator fails to comply with an order issued, the administrator may take such actions as the administrator deems necessary to prevent or minimize harmful discharges to the MS4, waters of the United States, or to persons or wildlife.
- (4) The city will not reinstate suspended services or MS4 access to the violator until:
 - (a) The violator presents proof, satisfactory to the administrator that the noncomplying discharge has been eliminated and its cause determined and corrected;
 - (b) The violator reimburses the city for all costs the city incurred in suspending and reinstating water service, sanitary sewer connection, and MS4 access; and
 - (c) The violator reimburses the city for all costs of testing, containment, cleanup, abatement, removal and disposal of any substance unlawfully discharged into the MS4 incurred by the city while responding to, abating, and remediating the discharge or threatened discharge.
- (5) A violator whose service or access has been suspended or disconnected may appeal the enforcement action to the city manager's attention, in writing, within ten (10) days of notice of the suspension. The city manager will render a decision within seven (7) days upon written receipt of the petition.
- (6) The remedies provided by this section are in addition to any other remedies set out in this article. Exercise of this remedy is not a bar against, or a prerequisite for, taking other action against a violator.
- (7) A person commits an offense if the person reinstates water service, sanitary sewer service, or MS4 access to premises terminated pursuant to this section, without the prior approval of the administrator.

Sec. 46-122. Nonemergency suspension of utility service and municipal stormwater drainage system access.

- (1) The city may suspend the city provided water supply, sanitary sewer connection, or MS4 access for any person failing to comply with previous notices to cease discharges to the MS4 in violation of this article. Utilities will be subject to suspension if such measures would abate or reduce the discharge.
- (2) The administrator will notify a violator of the proposed suspension of its water supply, sanitary sewer connection or MS4 access. The violator may petition the administrator for a reconsideration and hearing before the city manager.
- (3) The city will not reinstate suspended services or MS4 access to the discharger until:

- (a) The violator presents proof, satisfactory to the administrator, that the noncomplying discharge has been eliminated and its cause determined and corrected;
- (b) The violator reimburses the city for all costs the city incurred in suspending and reinstating water service, sanitary sewer connection, and MS4 access; and
- (c) The violator reimburses the city for all costs of testing, containment, cleanup, abatement, removal and disposal of any substance unlawfully discharged into the MS4 incurred by the city while responding to, abating, and remediating the discharge or threatened discharge.
- (4) The remedies provided by this section are in addition to any other remedies set out in this article. Exercise of this remedy is not a bar against, or a prerequisite for, taking other action against a violator.
- (5) A person commits an offense if the person reinstates water service, sanitary sewer service, or MS4 access to premises terminated pursuant to this section, without the prior approval of the administrator.

Sec. 46-123. Industrial or construction activity discharges.

- (1) Any person subject to an industrial or construction TPDES stormwater discharge permit shall comply with all provisions of such permit. Proof of compliance with said permit may be required by the administrator prior to allowing discharges to the MS4.
- (2) The operator of a facility that is required to have a TPDES permit to discharge stormwater associated with industrial activity shall submit a copy of the NOI to the city at the same time the operator submits the original NOI to the TCEQ, as applicable. The copy of the NOI may be delivered to the administrator either in person or by mail.
- (3) A person commits an offense if the person operating a facility that is discharging stormwater associated with an industrial activity without having submitted a copy of the NOI to do so to the administrator.

Sec. 46-124. Construction activity permit and application.

- (1) No person shall commence construction activities meeting the requirements of the TPDES general construction permit without a development permit issued by the city. A person shall make application for a permit to the city on forms furnished by the city and shall provide the following information:
 - (a) Name, legal name of business or entity, business address, and telephone number of the applicant.
 - (b) Site-specific SWP3 for the construction activity.
 - (c) A copy of the NOI and/or CSN depending on the area (e.g. acreage) disturbed by the construction activity.
 - (d) A copy of the TCEQ-issued TPDES permit number for the project (if applicable).

- (2) Fees. All fees required under this section will be set by resolution of the city council.
- (3) *Permit decisions*. The city will evaluate the data furnished by the applicant and may require additional information. Within 7 calendar days of receipt of a completed permit application, the city will determine whether or not to issue a development permit. The city may deny an application or a permit for any of the following grounds:
 - (a) Failing to provide all of the information required by the city;
 - (b) The applicant's past record of ordinance violations;
 - (c) Safety record of the applicant or any driver, based on such things as civil and criminal lawsuits and violations of environmental laws and ordinances;
 - (d) Providing false, misleading or inaccurate information to the city.
- (4) Permit.
 - (a) Permits shall remain active until final stabilization for the construction activity has been achieved.
 - (b) A new permit application is required to be submitted within fifteen (15) days of the following, whereupon the previous permit will be voided and the previous permit canceled:
 - i. When ownership of the operating entity is changed; or
 - ii. The city determines that operations or management methods are no longer adequately described by the existing permit application.
 - iii. The effective date of the renewed TPDES construction general permit.
 - (c) Permits are not transferrable.
 - (d) Suspension or revocation of permit. A permit may be revoked by the city for any violation of this section.
 - (e) Appeals. An applicant has the right to appeal a determination made by the administrator to the city manager by submitting a written appeal to the city secretary, with a copy to the administrator, not more than five (5) days after receiving notice of the suspension or denial of permit. The city manager or his or her designee will hear the appeal and issue a written finding not more than twenty (20) days after the notice was delivered to the city secretary. The city manager's determination is final.

Sec. 46-125. Planning requirements for site construction.

(1) The SWP3 shall describe and ensure the implementation of practices that will be used to reduce the pollutants in stormwater discharges associated with construction activity at the construction site and assure compliance with the terms and conditions of a TCEQ stormwater permit.

- (2) A SWP3 is not required when a portion of a previously developed tract of land is redeveloped, unless the redevelopment will result in the disturbance of more than one acre of existing vegetation or impervious cover.
- (3) The SWP3 must be prepared at the time of submission of the NOI or CSN to the city.
- (4) The SWP3 must identify any environmentally sensitive areas that will receive any pollutants carried by stormwater from the site.
- (5) The following requirements apply to development of sites five (5) acres and greater or development of sites regardless of size that are part of a common plan of development:
 - (a) Obtain a city-issued development permit.
 - (b) A copy of the operator's SWP3, NOI provided to TCEQ, and CSN must be provided to the city before the construction activity commences.
 - (c) A copy of the operator's NOT provided to TCEQ must be provided to city after final stabilization has been achieved.
 - (d) The area of the development will be based upon any or all of the following: platted lot(s), site plan of the development, phased-in name of the development and/or ownership of the property or, if not platted, based upon the area of the tract owned by the developer, including all contiguous property owned by the same person.
- (6) The following requirements apply to development of sites disturbing between one (1) acre and five (5) acres:
 - (a) Obtain a city-issued development permit.
 - (b) A copy of the operator's SWP3 and CSN must be provided to the city before the construction activity commences.
 - (c) A copy of the operator's notification of closure for the CSN must be provided to city when final stabilization has been achieved.
 - (d) The area of the development will be based upon any or all of the following: platted lot(s), site plan of the development, phased-in name of the development and/or ownership of the property or, if not platted, based upon the area of the tract owned by the developer, including all contiguous property owned by the same person.
- (7) The following requirements apply to development of sites less than one acre, if not part of a common plan of development:
 - (a) Obtain a city-issued development permit.
 - (b) A copy of the operator's SWP3 must be provided to the city before the construction activity commences.
 - (c) The area of the development will be based upon platted lot(s), site plan of the development, phased-in name of the development, and/or ownership of the property

or, if not platted, based upon the area of the tract owned by the developer, including all contiguous property owned by the same person.

(8) Minimum requirements of a SWP3 can be found in the most recent TPDES construction general permit.

Sec. 46-126. - Pollution control measures.

- (1) The responsible party of any construction site within the city shall implement measures necessary to control erosion, sedimentation, debris, and stormwater pollution. The responsible party is responsible for the maintenance and performance of the temporary pollution control measures until permanent measures are in place. The pollution controls are designed and should be selected by the responsible party to achieve the best results in controlling the pollution.
- (2) *Temporary pollution control measures (during construction)*. This subsection provides examples of temporary pollution control measures that can be used to control erosion and sedimentation.
 - (a) Structural control of soil erosion.
 - i. Stilt fences may be utilized, where necessary, to retain the sediments from disturbed areas within the site and decrease the velocity of sheet flows.
 - ii. Straw bales may be utilized, where necessary, to retain sediments from disturbed areas within the site and decrease the velocity of sheet flows. Straw bales are particularly useful in paved areas where silt fences cannot be erected.
 - iii. Stabilized construction entrances shall be designed to reduce the amount of soil tracked off the construction site by vehicles leaving the site. A stabilized construction entrance should be utilized to control tracking of material from the site. The responsible party shall ensure that vehicles entering and leaving the construction site use the stabilized construction entrance. The owner or operator of a vehicle entering or leaving a construction site may not track soil off the construction site.
 - iv. Vegetative buffer strips, of appropriate size, should be maintained, where necessary and practical, to aid in reducing the velocity of stormwater and in trapping sediments in the stormwater leaving the site. A vegetative buffer will usually suffice as a structural control until final stabilization is accomplished.
 - v. Inlet protection barriers must be installed around all inlets to the storm sewer system and remain in place until the area surrounding the inlet is paved or stabilized sufficiently to prevent silt laden runoff from entering the storm sewer system.
 - (b) *Waste Controls.* Waste disposal must be accompanied in a manner so that no solid wastes, including building materials, hazardous substances, oil, or packaging leave the site, except for disposal at an appropriate, approved solid waste management

facility, in conformance with the Texas Solid Waste Disposal Act. To the extent practicable, no solid waste, including building materials, hazardous substances, or oil may be allowed to enter the city MS4, city streets, or waters of the United States. Building materials include, but are not limited to, uncovered stockpiles of soil, sand, dry cement, lumber, bricks, packaging or other products used in construction. The general contractor and/or builder, to whom the development permit and/or building permit is issued, is responsible for the conduct of all subcontractors with regards to disposal of wastes generated by the construction activities at the site.

- (c) Dust control. Reasonable measures shall be taken to control dust, particulate matter, and windblown debris.
- (d) Hazardous Material Storage. Chemicals, paints, solvents, fertilizers, and other toxic materials must be stored in waterproof containers. Except during applications, the contents must be kept in trucks or in storage facilities. Runoff containing such materials shall be collected, removed from the site, and disposed of at an approved solid waste or chemical disposal facility.
- (e) Concrete Trucks. The responsible party may not allow the owner or operator of a concrete truck to wash out or discharge surplus concrete or drum wash water at a construction site, unless the surplus concrete or drum wash water in concrete trucks is discharged at a facility on the construction site that will retain all concrete wash waters or leachates, including any wash waters or leachates mixed with stormwater. Concrete wash waters and leachates may not be allowed to enter the MS4, city streets, adjacent properties, the waters of the United States, or ground waters.
- (3) *Final pollution control measures (post construction).* These measures, specific to the type of site, provide final stabilization of the construction sites:
 - (a) All soil disturbing activities at the site have been completed and a uniform (e.g., evenly distributed, without large bare areas) perennial vegetative cover with a density of 70 percent has been established on all unpaved areas and areas not covered by permanent structures, or equivalent permanent stabilization measures (such as the use of riprap, gabions, or goetextiles) have been employed.
 - (b) For construction activities on land used for agricultural purposes (e.g. pipelines across crop or range land), final stabilization may be accomplished by returning the disturbed land to its pre-construction agricultural use. Areas disturbed that were not previously used for agricultural activities, such as buffer strips immediately adjacent to surface water and areas which are not being returned to their pre-construction agricultural use must meet the final stabilization conditions of condition 3(a) above.
 - (c) Acceptance of improvements by the city can occur before the final stabilization coverage requirement is met, if the developer agrees to maintain the stabilization until coverage is achieved and all other permanent measures are complete (i.e. performance bond).
 - (d) Once final stabilization has been achieved, the responsible party shall notify the administrator, or designated representative that final stabilization has been achieved.

- (e) Erosion control structures must be provided where necessary to control erosive velocities in unlined channels or swales leaving the site.
- (f) Sediment traps must be provided on the site, as necessary, to control sedimentation from concentrated storm water discharges into an environmentally sensitive area. Individual assessments must be made on a site-specific basis. However, a rock rubble low berm must be installed around an outfall that discharges directly into an environmentally sensitive area, unless this requirement is waived by the administrator because the responsible party has installed another type of sediment trap that provides equal or better protection.
- (4) Scheduling of control measures. pollution control measures must be implemented in a sequence that will provide maximum stormwater pollution control based on the following principles:
 - (a) Down slope and side slopes perimeter controls must be installed before land disturbing activity occurs.
 - (b) The responsible party shall not disturb the site until the responsible party is ready for construction to proceed.
 - (c) Efforts to provide cover or stabilize disturbed areas must occur as soon as possible.
 - (d) Temporary perimeter controls may not be removed until all upstream areas are permanently stabilized.
- (5) Inspection of pollution control measures. The responsible party shall inspect all pollution control measures every fourteen (14) days and within twenty four (24) hours following a rainfall of 0.5 inches or greater, at the site. The inspection reports are to be considered part of the operator's SWP3, and as such, are subject to the same record retention schedule and availability requirements of the SWP3. The inspection reports, as well as, the entire SWP3 shall be made available for inspection by a representative of the city, during normal business hours.
- (6) Maintenance of pollution control measures.
 - (a) The responsible party shall maintain and ensure adequate performance of the temporary pollution control measures until permanent pollution control measures are in place.
 - (b) Whenever the temporary or permanent pollution control measures do not keep soil, sediment, and debris on the construction site, such as excessive tracking of dirt offsite by vehicles and runoff of sediments from the site over sidewalks and into the streets and gutters, etc., the responsible party shall remove the soil, sediment, and debris from streets, sidewalks, inlets, or other areas including private property impacted such as determined by the administrator, return the soil and sediment to the areas to be stabilized, and properly dispose of the debris.
 - (c) The responsible party is responsible for the maintenance of any permanent pollution control measures located on the site, unless the owner has dedicated the permanent pollution control measure to the city and has provided the city with any easements

necessary to allow access to the permanent pollution control measure and to conduct any required maintenance activities.

Sec. 46-127. Monitoring of discharges.

- (1) *Applicability* This section applies to all facilities that have stormwater discharges associated with industrial and construction activities.
- (2) Access to facilities:
 - (a) The administrator shall be permitted to enter and inspect facilities subject to regulation under this article as often as necessary to determine compliance with this article. If a discharger has security measures in force which require proper identification and clearance before entry into its premises, the discharger shall make the necessary arrangements to allow access.
 - (b) Facility operators shall allow the administrator ready access to all parts of the premises for the purpose of the inspection, sampling, examination and copying of records that must be kept under the conditions of a TPDES permit to discharge stormwater, and to the performance of any additional duties as defined by the state and federal law.
 - (c) The administrator shall have the right to set up on any permitted facility such devices as are necessary in their opinion to conduct monitoring and/or sampling of the facility's stormwater discharge.
 - (d) The administrator has the right to require the discharger to install monitoring equipment as necessary. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the discharger at its own expense. All devices used to measure stormwater flow and quality shall be calibrated to ensure their accuracy.
 - (e) Any temporary or permanent obstruction to safe and easy access to the facility to be inspected and/or sampled shall be promptly removed by the operator at the written or oral request of the administrator and shall not be replaced. The costs of clearing such access shall be borne by the operator.
 - (f) If the administrator has been refused access to any part of the premises from which stormwater is discharged, and the administrator is able to demonstrate probable cause to believe that there may be a violation of this article, or that there is a need to inspect and/or sample as part of a routine inspection and sampling program designed to verify compliance with this article or any order issued hereunder, or to protect the overall public health, safety, and welfare of the community, then the administrator may seek issuance of a search warrant from any court of competent jurisdiction.

Sec. 46-128. Notification of spills.

Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for an emergency response for a facility or operation has information of any known or suspected release of materials which are resulting, or may result in illegal discharges or pollutants discharging into stormwater or the storm drainage system, or waters of the United States, said person

shall take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of such a release of hazardous materials, said person shall immediately notify emergency response agencies of the occurrence via emergency dispatch services. In the event of a release of non-hazardous materials, said person shall notify the authorized enforcement agency no later than the next business day. Notifications in person or by phone shall be confirmed by written notice addressed and mail[ed] to the administrator within three business days of the phone notification. If the discharge of prohibited materials emanates from a commercial or industrial facility, the owner or operator of such facility shall also retain an on-site written record of the discharge and the actions taken to prevent its reoccurrence. Such records shall be retained for at least three years.

Division 4. Enforcement.

Sec. 46-129. Penalty.

A person who violates any section of this article is guilty of a misdemeanor and upon conviction is punishable in accordance with section 1-14.

Sec. 46-130. Notice.

The city will serve persons operating in violation of this article with written notice stating the nature of the violation and providing a reasonable time limit for satisfactory compliance. Failure of the city to provide such notice does not limit the authority of the city to take any action deemed appropriate.

Sec. 46-131. Recovery of costs incurred by the city.

Any person violating any of the provisions of this article; causing damage to or impairing the MS4; or cause impairment or damage to the MS4 will be liable to the city for any expense, loss, or damage caused by such violation or action. The city will bill the person for the costs incurred for any cleaning, repair, replacement, or remediation work caused by the violation or action. Refusal to pay the assessed costs shall constitute a violation of this division enforceable under the provisions of this article.

2.

That all ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed to the extent of such conflict.

3.

The Bryan City Code, as amended, shall remain in full force and effect, save and except as amended by this ordinance.

4.

If any section, paragraph, sentence, clause, phrase or word of this ordinance is declared unconstitutional or invalid for any purpose, the remainder of this ordinance shall not be affected thereby and to this end the provisions of this ordinance are declared to be severable.

5.

It is hereby found and determined that the meetings at which this ordinance was passed were open to the public, as required by Section 551.001, *et seq.*, of the Texas Government Code, and that advance public notice of the time, place and purpose of said meetings was given.

It is the intention of the City Council that this ordinance shall become a part of the Bryan City Code and it may be renumbered and codified therein accordingly.

7.

That a person who violates any section of this ordinance is guilty of a misdemeanor and upon conviction is punishable in accordance with Section 1-14 of the City of Bryan Code.

That the City Secretary is directed to publish this ordinance in a newspaper of general circulation in the City of Bryan in compliance with the provisions of the City Charter, which publication shall be sufficient if it contains the title of this ordinance, the penalty provided therein for violation thereof, and the effective date of the ordinance.

8.

That this ordinance shall take effect from and after its final passage and publication as required by law. The effective date of this Ordinance will be January 19, 2016.

9.

PRESENTED AND GIVEN first reading the 15th day of December , 2015, at a regular meeting of the City Council of the City of Bryan, Texas; and given second reading, passed and approved on the 12^{th} day of January , 2016, by a vote of <u>6</u> ayes and <u>6</u> noes at a regular meeting of the City Council of the City of Bryan, Texas.

ATTEST:

Mary Lynne Stratta, City Secretary City of Bryan

APPROVED AS TO FORM:

Janis K. Hampton, City Attorney City of Bryan

CITY OF BRYAN:

Jason P. Bienski, Mayor City of Bryan

Attachment 7 – Education

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BILL TO City of Bryan Texas/Transportation Sandra Willis po BOX 1000 1111 Waco Bryan TX 77802 USA

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SHIP TO City of Bryan Texas/Transportation Sandra Willis po BOX 1000 1111 Waco Bryan TX 77802 USA
160:556 Lite 5 REMIT Brown & Bigelow TO: PO Box 1450 NW 8554 Minneapolis, MN 55485-8554 Phone-214-420-1030

001-3401-420-21-05

503072

un-

BILL TO City of Bryan Texas /Code Enforcement Sandra Willis po BOX 1000 1111 Naco Bryan TX 77802 USA

INVOICE#	23006353
ORDER#	1050809
P.O.#	ORG INV 00910806
CUSTOMER	05820375
ORD DATE	1/21/2016
SHIP DATE	11/04/2015
INV DATE	1/22/2016
SHIP VIA	NOT FOUND
SHIP VIA	DUE UPON DECEIPT
TERMS	DUE UPON RECEIPT
SLSPN	STOKES, NANCY

SHIP TO City of Bryan Texas / Code Enforcement Sandra Willis po BOX 1000 1111 Waco Bryan TX 77802 USA

UNIT PRICE EXT AMOUNT 1.0200 510.00 ORDERED SHIPPED | ITEM NUMBER / DESCRIPTION

MONEY CLIC PEN

		WHITE IMPRINT			
1	1	WHITE IMPRINT	.0000		r
1	1	PROOF FOR ARTWORK ON PEN	, .0000 ·	.00	: :
500	500	RECYCLES NEWSPAPER PENCIL WHITE IMPRINT	.3100	155.00	,
1	1	FREE PROOF PLEASE	.0000	.00	
525	525	WHITE POST IT NOTES WITH BLUE IMPRINT/HALFTONE	. 5700	299.25	
1	1	PLEASE SEND FREE PROOF.	,0000	.00	
500	500	FULL COLOR MAGNETS	.4600	230.00	
1	, l	PLEASE SEND FREE PROOF QUOTE # Q152393448	.0000	.00	
1	1	ART CHARGE	, 0000	.00	,

CUSTOMER COPY - REPRINT -Page 1

	REMIT Brown & Bigelow TO: PO Box 1450 NW 8554 Minneapolis, MN 55485-8554 Phone-214-420-1030
BILL TO City of Bryan Texas Sandra Willis po BOX 1000 lill Waco Bryan TX 77802 USA SHIP TO City of Bryan Texas Sandra Willis po BOX 1000 lill Waco Bryan TX 77802 USA	/Code Enforcement INVOICE# 23006353 ORDER# 1050809 P.O.# ORG INV 00910806 CUSTOMER 05820375 ORD DATE 1/21/2016 SHIP DATE 1/22/2016 SHIP VIA NOT FOUND / Code Enforcement TERMS DUE UPON RECEIPT SLSPN STOKES, NANCY
<u>ORDERED SHIPPED IT</u>	I NUMBER / DESCRIPTION UNIT_PRICE EXT_AMOUNT SUB-TOTAL 1194.25 FRT/HDLG 25.75 SALES TAX
We appr TERMS AND CONDITIONS Since careful inspec being discarded, it 10%, to be billed pr not include shipping within 10 days after permission. The hig past due accounts.	TOTAL DUE 1220.00 ion at the factory often results in some imprint pieces s understood that an underrun or overrun of not more than -rata, is acceptable by the customer. Quoted prices do charges or any applicable taxes. All claims must be made receipt of shipment. No returns can be made without our ast percentage rate allowed by law will be charged on CUSTOMER COPY - REPRINT - Page 2 *** End ***

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01082016

Tanya Baker Graphic Designer

INVOICE

Tanya Baker, Designer 218 S. Gordon St. Bryan, Texas 77802 (409) 370-1241

Mark Jurica January 8, 2016

\$75 per hour / 5 hour estimate	
for layout/proofing/corrections/changes	\$375.00
Finalize coloring book	\$745.00
Total	\$1120.00

160536 Libe 112

745.00

375,00

ME 7008

SEZON

Thank you.

001-3401-420-21

Computer Designs: Flyers • Logos • Brochures • Newsletters • Programs • T-Shirts

Хре	dientMai			Invoice
Better 2115 W Briz	Billing. More Effective Marketing. argate - Bryan, TX 77802		Date	02/19/16
979.821.25	88 voice		Number	8939
979.821.2626 fax			Your P.O.	
		FEB 2 5 2016	Ship Date	02/01/16
			Carrier	
Sold To:	City of Bryan Purchasing Services	City of Bryan Finance	Rep	Brandon Warlick
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	PO Box 1000 Bryan TX 77805		Terms	ON RECEIPT

Quantity	Unit	ltem	Description		Unit Price	Extension
35000	LT		BTU Bill Insert Common Code Vio	lations	1952.00	1952.00
			3			
			:		SUB TOTAL	1952.00
					ТАХ	0.00
					SHIPPING	0.00
					TOTAL DUE	\$ 1952.00
www.xpedientma	il.con	1				



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increase your reach



inv	oice		20	23 South Texas / Bryan, Texas	Avenue 77802	Phone Fa) www.alphagr	Phone.979.779.1234 Fax.979.821.2784 Alphagraphicsbcs.com	
Sold To	Mark Jurica		eceive)O		No.	16150	
	City of Bryan Finance Dept. PO Box 1000 Bryan TX 77805		MAR 1 4 2016	÷		Date 3/10)/2016	
	Fax: 979-209-5085		City of Bryan			P.O.		
QUANTITY			Finance DESCRIPTIO	N G			AMOUNT	
1,000	Code Booklet 8pg + Cover, 8 1/2 x 5 1/2 Finit 80# Gloss Cover & Book 4/0 Process, 4/4 Process PDF proof, Color proof score, fold, stitch, box, local d	shed elivery			i,		1,166.40	
SPECIAL INSTRUC	CTIONS		·····			SUB	1,166.40	
Sales Rep: Ho Thank you fo	ouse r the opportunity to earn your busines	ss.				TAX		
		S	hip Via: AG Truck	: - Local		SHIPPING	c	
						TOTAL	1,166.40	
						.NET DUE	1,166.40	
Please pay • Remit payment	r from this invoice is to: 2023 South Texas Avenue, Bryan, Tex	(as 77802	2	RECEIPT FC CASH CHE	OR CASH SAL CK #	.ES _ CREDIT C	ARD	
Please make c	hecks payable to AlphaGraphics			AMOUNT	RECEIVED			
				C	SR INITIALS			





Attachment 8 – Used Oil & Fluids

AUDIT

H & H AUSTIN

<u>Account #</u> 5120	Service At: BRYAN, CITY 1111 WACO BRYAN TX 979-209-5904	Y OF - FLEE 77803 4	T SERVIC	Bill To: CITY OF BRY PO BOX 1000 BRYAN TX 7 979-209-5085	AN) 7805		
2					E	Balance:	\$0.00
Statement #	Statement Date ticket/check number	Date	Statement Descr transaction desc	iption ription G	ity Amount	t	
550479	09/29/16		gs			Statemen	t Total: \$540.00
	317941 .	09/28/16	USED AF DRUMS A	R 1.0	00 \$45.00	0	
	317941	09/28/16	USED OIL FILTERS	AR 1.0	00 \$45.00	0	
512311	09/01/16		gs			Statemen	t Total: \$450.00
	313149	08/30/16	USED AF DRUMS A	R 0.(0 \$0.00)	an lann a sin gharar man franski narman na sin ganar da
	313149	08/30/16	USED OIL FILTERS	AR 0.0	00 \$0.0 0	נ	
502751	08/26/16		gs			Statemen	t Total: \$450.00
 Construction of the second se Second second sec second second sec	309131	08/11/16	TRIP CHARGE AR	0.0	10 \$0.00)	
	309131	08/11/16	USED OIL AP	0.0	0 \$0.00)	
465966	08/02/16		gs			Statemen	t Total: \$450.00
	303897	07/07/16	USED AF DRUMS A	R 0.0	0 \$0.0 0)	
	303897	07/07/16	USED OIL FILTERS	AR 0.0	0 \$0.00)	
463390	08/01/16		gs			Statemen	t Total: \$450.00
	308007	08/01/16	USED OIL FILTERS	AR 2.0	0 \$170.00	3	
395255	06/15/16		gs			Statemen	t Total: \$280.00
	301695	06/15/16	USED OIL AP	429.0	0 SO.00)	
	301695	06/15/16	TRIP CHARGE AR	1.0	0 \$55.00	נ	
381537	06/08/16		gs			Statemen	t Total: \$225.00
	299401	06/07/16	USED OIL FILTERS	AR 1.0	0 \$85.00	נ	
354069	05/17/16		gs			Statemen	t Total: \$140.00
	294691	05/16/16	TRIP CHARGE AR	1.0	0 \$55.00)	
	294691	05/16/16	USED OIL AP	464.0	0 \$0.00)	
353370	05/16/16		gs			Statemen	t Total ; \$85.00
	294759	05/10/16	USED OIL FILTERS	AR 1.0	0 \$85.00)	
	451113	05/13/16	PAYMENT THANK Y	OU 1.0	0 -\$45.00) IN'	/. REF: 315730

343195	05/03/16		gs			Statement Total: \$45.00
	450717	04/28/16	PAYMENT THANK YOU	1.00	-\$110.00	INV. REF: 278522
315730	04/15/16		gs			Statement Total: \$155.00
	289612	04/15/16	USED AF DRUMS AR	0.00	\$0.00	
	289612	04/15/16	USED OIL FILTERS AR	1.00	\$45.00	
313337	04/14/16		gś			Statement Total: \$110.00
	450623	04/08/16	PAYMENT THANK YOU	1.00	-\$90.00	INV. REF: 281999
287827	03/23/16		gs			Statement Total: - \$200.00
and a staff land a series of 2 series of 2	450284	03/18/16	PAYMENT THANK YOU	1.00	-\$45.00	INV, REF: 254777
281999	03/17/16		gs			Statement Total: \$245.00
	284623	03/16/16	USED AF DRUMS AR	0.00	\$0.00	
	284623	03/16/16	USED OIL FILTERS AR	2.00	\$90.00	
278522	03/16/16		gs		visio (na consector) estado estado estado	Statement Total: \$155.00
	286625	03/15/16	USED OIL AP	1.00	SD.00	
	286625	03/15/16	TRUCK CHARGE AR	1.00	\$55.00	
	277366	03/15/16	TRUCK CHARGE AR	1.00	\$55.00	
	277366	03/15/16	USED OIL AP	532.00	\$0.00	
254777	02/12/16		md			Statement Total: \$45.00
	449425	01/20/16	PAYMENT THANK YOU	1.00	-\$45.00	INV. REF: 236809
	273231	01/12/16	USED OIL FILTERS AR	0.00	\$0.00	
	279109	02/12/16	USED OIL FILTERS AR	1.00	\$45.00	
243806	12/31/15		cb			Statement Total: \$45.00
	264417	12/01/15	USED OIL AP	0.00	\$0.00	
236809	12/22/15		md			Statement Total: \$45.00
	448364	11/04/15	PAYMENT THANK YOU	1.00	-\$45.00	INV. REF: 209818
	251494	10/07/15	USED OIL AP	60.00	\$0.00	
	249094	10/02/15	USED OIL AP	577.00	\$0.00	
	264499	12/22/15	USED OIL FILTERS AR	1.00	\$45.00	
215182	10/22/15)	md			Statement Total: \$45.00
	448075	10/23/15	PAYMENT THANK YOU	1.00	-\$135,00	INV. REF: 197182
209818	10/09/15	je na slovenski slove	md			Statement Total: \$180.00
an a	249179	10/09/15	USED OIL FILTERS AR	1.00	\$45.00	

Sum of Transactions Printed:

405.00

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AUDIT

H & H AUSTIN

<u>Account #</u> 5121	<u>Service At:</u> CITY OF BR 1111 WACO BRYAN TX 979-209-5900	YAN PUBL 77803 0		<u>Bill To:</u> CITY OF E PO BOX 1 BRYAN T. 979-209-55	RYAN 000 X 77805 979			
						Bal	ance:	\$220.00
Statement #	Statement Date		Statement Desci	ription				
	ticket/check number	Date	transaction desc	cription	Qty	Amount		
550480	09/29/16		gs				Staten	nent Total: \$175.00
<td>317942</td> <td>09/28/16</td> <td>USED OIL FILTERS</td> <td>AR</td> <td>1.00</td> <td>\$45.00</td> <td></td> <td>na secondare contra tanta (secondo recordo se socio de secondo de la contra en tanta (secondo de secondo de se</td>	317942	09/28/16	USED OIL FILTERS	AR	1.00	\$45.00		na secondare contra tanta (secondo recordo se socio de secondo de la contra en tanta (secondo de secondo de se
549718	09/28/16		gs				Staten	nent Total: \$130.00
HERE AND A DECK	453282	09/27/16	PAYMENT THANK	YOU	1.00	-\$45.00	uminin historia	INV. REF: 521672
541133	09/21/16		qs				Staten	nent Total: \$175.00
	315629	09/21/16		<u>.</u>	169.00	\$0.00		
	315629	09/21/16	TRIP CHARGE AR		1.00	\$45.00		
536421	09/19/16		gs				Staten	nent:Total: \$130.00
	453049	09/16/16	PAYMENT THANK	YOU	1.00	-\$45.00		INV. REF: 502752
	453049	09/16/16	PAYMENT THANK	YOU	1.00	-\$170.00		INV. REF: 463391
521672	09/08/16		gs				Staten	nent Total: \$345.00
	314406	09/08/16	USED OIL AP		169.00	\$0.00		
	314406	09/08/16	TRIP CHARGE AR		1.00	\$45.00		
513917	09/02/16		gs				Statem	nent Total: \$300.00
	452869	09/02/16	PAYMENT THANK	YOU	1.00	-\$45.00	1999-1999-1999-1999-1999-1999-1999-199	INV. REF: 473099
512312	09/01/16		gs				Statem	nent Total: \$345.00
	313150	08/30/16	USED OIL FILTERS	AR	0.00	\$0.00		
502752	08/26/16		QS				Statem	nent Total: \$345.00
	311057	08/25/16		•	87.00	50.00		
	311257	08/25/16	TRIP CHARGE AR	·	1.00	\$45.00		
	309132	08/11/16	USED OIL AP		0.00	\$0.00		
	309132	08/11/16	TRIP CHARGE AR		0.00	\$0.00		
498468	08/22/16		gs			ta Agencia de Las. 19 de terreta	Statem	nent Total: \$300.00
	452669	08/22/16	PAYMENT THANK	YOU	1.00	-\$45.00		INV. REF: 459212
473099	08/05/16		gs				Statem	ient Total: \$345.00

Thursday, December 08, 2016

11:46:24AM

	284567	08/04/16	TRIP CHARGE AR	1.00	\$45.00	
	284567	08/04/16	USED OIL AP	245.00	\$0.00	
469331	08/03/16		gs			Statement Total: \$300.00
na ana ana ana ana ana ang ang ang ang a	452348	07/27/16	PAYMENT THANK YOU	1.00	-\$146.80	INV. REF: 435946
	452348	07/27/16	PAYMENT THANK YOU	1.00	-\$173,80	INV. REF: 419288
465967	08/02/16		as			Statement Total: \$620.60
				0.00	CO 00	
	303898	07/07/16		0.00	S0.00 S0.00	
	303898	07/07/16	USED OIL FILTERS AR	0.00	\$0.00	
e A standard and the track the ether to the the		ne wann it automatichester attekter fit		ere understanden socialistikelikersterike	enter (al sub tribut the state of the	
463391	08/01/16		gs			Statement Total: \$620.60
	308008	08/01/16	USED OIL FILTERS AR	2.00	\$170.00	
459212	07/28/16		gs			Statement Total: \$450.60
	306837	07/27/16	USED OIL AP	212.00	S0.00	
	306837	07/27/16	TRIP CHARGE AR	1.00	\$45.00	
435946	07/12/16		gs	na na sha na si		Statement Total; \$405.60
an a	304724	07/12/16	USED OIL CHARGE AR	206.00	\$61.80	
	304724	07/12/16	TRIP CHARGE AR	1.00	\$85.00	
435264	07/12/16		gs	Alder Stern Brittigen der Derechten Alder auf i Beitrigt nicht stern sich		Statement Total: \$258.80
hereitintistaalidaksiki	452042	07/12/16	PAYMENT THANK YOU	1.00	-\$142.60	INV. REF: 395256
419288	06/30/16		gs			Statement Total: \$401.40
alalan menerikan kana	302665	06/29/16	USED OIL CHARGE AR	296.00	\$88.80	C 64 Applies 1964 115 2042 (420) decision in conservation protection of a community of a constraint and con- C 64 Applies 1964 115 2042 (420) decision account of a conservation of a constraint of a constraint and constraint C 64 Applies 200 and 200 C 64 Applies 200 and 200 C 64 Applies 200 and 200 And 200 and 200
	302665	06/29/16	TRIP CHARGE AR	1.00	\$85.00	
408571	06/24/16		gs.			Statement Total: \$227.60
	474000			1.00	-\$245 50	
	451802	06/23/16		1.00	-\$246.00	INV. REF: 354070
	451802	06/23/16	PAYMENT THANK YOU	1,00	-\$85.00	INV. REF: 353371
305256	06/15/16		as	NATORNAL STREET		Statement Total: \$774.80
000200	voinorite		97		ACT 00	
	300441	06/15/16	USED OIL CHARGE AR	192,00	\$57,60	
	300441	00/15/10	TRIP UNARGE AR	1.00	400,00	
381538	06/08/16		gs			Statement Total: \$632.20
	299402	06/07/16	USED OIL FILTERS AR	1.00	\$85.00	
378686	06/07/16		gs			Statement Total: \$547.20
 An an order of the and the antipage of the antipa	451490	06/07/16	PAYMENT THANK YOU	1.00	-\$50.00	INV, REF: 289748
	451490	06/07/16	PAYMENT THANK YOU	1.00	-\$50.00	INV, REF: 253117

369701	06/01/16		gs			Statement Total; \$647.20
	298183	06/01/16	USED OIL CHARGE AR	535.00	\$160.50	
	298183	06/01/16	TRIP CHARGE AR	1.00	\$85.00	
354070	05/17/16		gs			Statement Total: \$401.70
	295067	05/16/16	USED OIL CHARGE AR	439.00	S131.70	
	295067	05/16/16	TRIP CHARGE AR	1.00	\$85.00	
353371	05/16/16		gs			Statement Total: \$185.00
	294760	05/10/16	USED OIL FILTERS AR	1.00	\$85.00	
n.	451113	05/13/16	PAYMENT THANK YOU	1.00	-\$50.00	INV. REF: 319878
	451113	05/13/16	PAYMENT THANK YOU	1.00	-\$50.00	INV, REF: 300586
347301	04/30/16		cb. cb.			Statement Total: \$200.00
	289613	04/15/16	USED AF AR	0.00	\$0.00	
	289613	04/15/16	USED AF DRUMS AR	0.00	\$0.00	
	289613	04/15/16	USED OIL FILTERS AR	0.00	\$0.00	
343196	05/03/16		gs			Statement Total: \$200.00
-	450717	04/28/16	PAYMENT THANK YOU	1,00	-\$45.00	INV. REF: 282000
319878	04/19/16		gs			Statement Total: \$245.00
	290629	04/19/16	TRIP CHARGE AR	1.00	\$50.00	
	290629	04/19/16	USED OIL AP	309.00	\$0.00	
300586	04/06/16		gs			Statement Total: \$195:00
	288465	04/05/16	TRUCK CHARGE AR	1.00	\$50,00	
	288465	04/05/16	USED OIL AP	104.00	\$0.00	
289748	03/29/16		gs			Statement Total: \$145.00
	286409	03/29/16	TRUCK CHARGE AR	1.00	\$50.00	
1	286409	03/29/16	USED OIL AP	250.00	\$0.00	
282000	03/17/16		gs			Statement Total: \$95.00
	285252	03/16/16	USED OIL FILTERS AR	1.00	\$45.00	
278523	03/16/16		gs			Statement Total: \$50.00
	450178	03/11/16	PAYMENT THANK YOU	1.00	-\$50.00	INV. REF: 260850
274001	03/10/16		gs			Statement Total: \$100.00
	450068	03/04/16	PAYMENT THANK YOU	1.00	-\$135.00	INV. REF: 256748
260850	02/23/16		gs			Statement Total: \$235.00
	281840	02/23/16	TRUCK CHARGE AR	1.00	\$50,00	annan an ann an ann an ann an ann an ann an a

	281840	02/23/16	USED OIL AP	218.00	\$0.00	
	449839	02/22/16	PAYMENT THANK YOU	1.00	-\$50.00	INV. REF: 245585
	449839	02/22/16	PAYMENT THANK YOU	1.00	-\$50.00	INV. REF: 241842
256748	02/17/16		gs			Statement Total: \$285.00
	280581	02/17/16	USED OIL FILTERS AR	3.00	\$135.00	
253117	02/05/16		md			Statement Total: \$150.00
	279037	02/09/16	TRUCK CHARGE AR	1.00	\$50.00	
	279037	02/09/16	USED OIL AP	302.00	\$0.00	
251569	01/31/16	e a comparate	cb	an ing an chartair Na chuir an chartair		Statement Total: \$100.00
	275072	01/22/16	USED OIL FILTERS AR	0.00	S0.00	
	275736	01/26/16	USED OIL AP	0.00	\$0.00	
248573	01/22/16		md			Statement Total: \$100.00
an gan an gan an galaga shiga shiga a sa an an a	449425	01/20/16	PAYMENT THANK YOU	1.00	-\$45.00	INV. REF: 235282
245585	01/13/16		md			Statement Total: \$145.00
1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -	274171	01/12/16	TRUCK CHARGE AR	1.00	\$50.00	
	274171	01/12/16	USED OIL AP	140.00	\$0.00	
243807	12/31/15		ćb			Statement Total: \$95.00
	264500	12/22/15	USED OIL FILTERS AR	0.00	\$0.00	
	264418	12/01/15	USED OIL AP	0.00	\$0.00	
241842	12/31/15		md		ortid, georgesinnel vers	Statement Total: \$95.00
	270137	12/30/15	TRUCK CHARGE AR	1.00	\$50.00	
	270137	12/30/15	USED OIL AP	225.00	\$0.00	
235282	12/15/15		md			Statement Total: \$45,00
	265339	12/15/15	TRUCK CHARGE AR	1.00	\$45.00	
	265339	12/15/15	USED OIL AP	120.00	\$0.00	
	448971	12/21/15	PAYMENT THANK YOU	1.00	-\$90.00	INV. REF: 229258
231504	11/30/15		cb	na na kao il 1975. Na Na John de Maria		Statement Total: \$90.00
	262922	11/17/15	USED OIL AP	110.00	\$0.00	
229258	11/20/15		md			Statement Total: \$90.00
	257341	11/19/15	USED OIL FILTERS AR	2,00	\$90.00	
	252134	10/20/15	USED OIL AP	90,00	\$0.00	
	448293	11/04/15	PAYMENT THANK YOU	1.00	-\$90.00	INV. REF: 209819
	254807	11/03/15	USED OIL AP	90.00	\$0.00	
219938	10/31/15		CREDIT MEMO		over a series and a series of the series	Statement Total: \$90.00
	y en gragen talan san interneting kasalaha belahar kasal Salahada A	ra na - 2009 militar yang di bilan kata dan 1929 kata dan kata dan kata dan kata dan kata dan kata dan kata dan Kata dan kata	a a sana sama sa mila san taning teknologi kata na tang tendi pintang tendi pina da tama (sang tendi tini babat Tang tendi			and a second constant was written work from a backware with 5 11400-50.

Thursday, December 08, 2016

••••••••••••••••••••••••••••••••••••••		10/31/15 10/31/15	AR ADJ CHRG AR AP ADJ CHRG AP	1.00 1.00	-\$45.00 \$45.00
209819	10/09/15		md		Statement Total: \$90.00
24	19180	10/09/15	USED OIL FILTERS AR	2.00	\$90.00

FARMER'S DIESEL, INC. 2014 REPORT

Picukp Date	Volume (gal)	Quality (% OIL)
8/20/2016 12:48	50	70
6/30/2016 8:05	330	70
12/21/2015 9:49	75	70
12/3/2015 13:16	300	70
TOTAL GALLONS	755	

Volume is what is pumped out of container. Quality is based on how much oil vs. water collected.

Submitted by: Brandon Dixon brandon.dixon@farmersdiesel.com Submitted Date: 10-08-15 Educationals



Trash Containers in Street

Trash containers should not be placed curbside for collection any sooner than 12 hours before the scheduled day of collection and returned to a location adjacent to the dwelling or stored out of public view no later than 12 hours after service.



Bryan Code Section 102-26

Graffiti

Allowing graffiti to exist in public view is detrimental to the property, encourages criminal activity in the area, and is an eyesore for the community. Bryan Code prohibits



a property owner to permit graffiti to remain on their property. The City's Graffiti Abatement Program follows state law in assisting property owners with removing graffiti. Report graffiti to the Public Works Call Center at (979) 209-5900 or email pwcc@bryantx.gov.

Bryan Code Section 50-234

The City of Bryan Code Enforcement Department is responsible for handling code violations

Voluntary compliance for a violation is the ultimate goal of the department. Correction of code violations, in some cases, may take several days, weeks, or even months. Cases are opened within 48-hours after receipt of a complaint, and the department maintains an internal goal that cases do not remain open more than 30 days. However, cases involving public nuisances can take more than 30 days to satisfy notification requirements and timelines defined by state law. Citations can be issued when compliance is not met. Only in extreme cases will the City go in and clear the property if the violation presents a public health and safety hazard.

You can report a violation by contacting the Public Works Call Center by phone at (979) 209-5900 or by email at pwcc@bryantx.gov. Leaving contact information is vital to a thorough investigation, and Code Officers do not discuss the name of a complainant with a violator when a complaint is investigated.

Necessity for Public View

Frequently the term "in public view" is used when discussing code violations. This significance relates to the Fourth Amendment to the U.S. Constitution which prohibits, generally, illegal search and seizure of any property. This protection, however, applies only to searches where the occupant has a reasonable expectation of privacy.

A concern related to privacy is satisfied (1) if the violation can be witnessed from a public street, sidewalk, alley, or other public place or (2) permission to inspect the property is given to the Code Officer by the property owner; otherwise, a search warrant will be required for inspection.

Applying the Rule: when the area observed is plainly visible, from a vantage point where the Code Officer has the right to be, there is no reasonable expectation of privacy.

City of Bryan Code Enforcement

Sewer Leaks and Voerflows It is the property owner's responsibility to maintain the sewer pipe connecting the sewer pipe connecting the sever pipe and clear of obstructions such as roots, grease and debris. Sewer pipe must be maintained to (1) prevent introduction of surface or ground water into the sewer pipe and (2) prevent sewage discharge into the sewer pipe and (2) prevent sewage discharge into the sewer pipe and (2) prevent sewage discharge into the sewer pipe and (2) prevent sewage	Illegal Dumping Code Enforcement pursues two goals with illegal dumping – (1) ensuring the dump site is cleaned up and (2) catching the perpetrator. If caught, offenders may be required to clean up the dump site and pay a fine. However, cleaning the dump site is ultimately the responsibility of the property owner. Residents are asked to record license plate numbers and other descriptors of illegal dumpers and to report the incident to the City of Bryan immediately. Contact the Bryan Police Department at (979) 821-3888 or the Public Works Call Center at (979) 209-5900.
In the City of Bryan follows idelines set forth by state law neerning junked motor vehicles. In City of Bryan defines a junk neerning junked motor vehicles, boat, trailet, ctor, etc. that is wrecked, mantled or partially dismantled, mantled or partially dismantled, mantled or partially dismantled, mantled or partially dismantled, mantled or partially formantled preable for more than 30 consecutive days on private property or consecutive hours on public place or public right- way. This provision does not include vehicles that are completely enclosed a garage or screened from public view by a privacy fence. Placing a tarp or cover on a vehicle does not constitute proper storage.	Residents are given written notice to remove, store, or make operational such hicles within 10 days or face legal action as well as towing and possible molition of the junked motor vehicle. <i>Bryan Code Section 38-21</i> Is unlawful to open the pholostered furniture, tires, to build in a nice box, effigerator, stove, glass, carpet, the pholostered furniture, tires, the pholostered furniture, tires, the pholostered furniture is that are not screened from uto parts, building rubbish the parts, building rubbish to the state are not screened from ublic view for more than 24 ours on a property where residential use has been authorized. Usage of the property where residential use has been authorized. Usage of the state to constitute proper storage. <i>Bryan Code Chapter 35</i>

City of Bryan Code Enforcement

City of Bryan Code Enforcement

 Nuisances Bryan Code Section 50-88 states maintaining, using, placing, depositing, leaving or permitting to be or remain on any public or private property any of the following items, conditions or actions are hereby declared to be and constitute a nuisance: Weeds and grass which grow in such way to harbor reptiles or rodents, or create a fire hazard, or attain a greater height than 12 inches Heaps of rubbish: keeping any garbage, trash, debris, cultivated brush, rubbish, wood and metal scrap, inoperative or abandoned appliances and furniture 	 Dilapidated structures or fences: any unsightly, partially destroyed, dilapidated or unfinished building or structure, discarded building materials, or dilapidated fences Offensive odors Animal carcasses Pollution of water Staonant water 	Owners of properties in violation will receive a notice allowing 7 days to bring the property into compliance. The City may take action to abate the nuisance on the 11th day after notice was issued. The City's initial notification of violation is valid for 1 year from the date of issuance and allows the City to abate repeat nuisances of the same nature without issuing a second notice in that year. The property owner is responsible for paying all costs associated with this	service plus an administration fee of \$100. A citation will be issued to the property owner each time the City is required to abate the problem. A lien will be placed against the property for any bill not paid within 30 days. Bryan Code Section 50-87
Parking Trailers and Commercial Vehicles in Street	parked in the street. Bryan Code Section 118-88 Over-Occupancy The City of Bryan establishes standards for the maximum number of unrelated individuals that can reside in a dwelling. In general, no more	than 4 unrelated individuals can reside under one roof. In a Residential Neighborhood Conservation District, no more than 2 unrelated individuals can live under one roof. The term "related" implies individuals common by blood, marriage, or adoption. Example: a family of 3 common by blood share a property with an unrelated roommate. In this situation no more than 2 unrelated individuals are considered living at the property.	Windshield inspections of the property are performed once a complaint is received to build a vehicle tracking log and pinpoint signs of over occupancy. Utility records may be reviewed to establish trends for water and electricity consumption. Staff may make direct contact with the property owner, tenant, landlord, or leasing agent to inquire about the property. An official notice will be issued to all parties if the investigation produces reasonable cause to suspect an over-occupancy violation exists. A reasonable amount of time will be given to each party to come into compliance or face legal action. <i>Bryan Code Chapter 130</i>

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City of Bryan Code Enforcement

City of Bryan Code Enforcement

High Weeds and Grass

Grass or weeds **higher than 12 inches** are deemed a public nuisance. Owners of properties in violation will receive a notice allowing 7 days to bring the property into compliance. The City may send a contractor to mow the property on the 11th day after notice was issued.

The City's initial notification of violation is valid for 1 year from the date of issuance and allows the City to mow the property without issuing a second notice for a repeat violation in that year.

The property owner is responsible for paying all costs associated with this service plus an administration fee of \$100. A citation will be issued to the property owner each time the City is required to correct the violation. A lien will be placed against the property for any bill not paid within 30 days.



- Exceptions:
- 1. State highway rights-of-way
- 2. Actively utilized crop production and/or grazing areas (greater than 1 acre)
- 3. Heavily wooded areas filled with uncultivated underbrush
- Concentration of wildflowers from March 1 until June 15 of each year in areas where grasses and weeds do no exceed 18 inches in height

Bryan Code Section 50-87

Basketball Goals in Right-of-Way

Basketball goals are prohibited from storage in the right-of-way (commonly understood as the area between street and the property's water meter).



Unimproved Parking

It is unlawful to park, store, or allow another to park or store a vehicle, trailer, or boat on any portion of a front or side yard visible from public view on a property located in a residentially-zoned



district or on any premises used for one-family, two-family, or multifamily dwelling purposes. Parking of such must be on an improved surface composed of asphalt, concrete, or gravel. Bryan Code Section 118-88



Signs in Right-of-Way

No sign, other than a City of Bryan sign or other sign of a public nature, is permitted to be placed on City property or the public right-of-way. Placement of signage in the public right-of-way, on power poles and light poles, or other public property is a violation. Bryan Code Chapter 98

City of Bryan Code Enforcement

City of Bryan Code Enforcement

COMMON CODE VIOLATIONS



Junked, wrecked or abandoned vehicles and equipment are not allowed to be parked, stored, or kept on any public or private property visible from the street or other public place.

Vehicles and trailers must be parked on an improved surface and may not be parked, stored, or kept on grass or dirt.



Garbage containers may not be stored at the street and must be returned back to the dwelling no later than 12 hours after collection.

Garage sale signs, advertisements, and other signage may not be placed in the public right-of-way, on power poles, light poles, or other public property.



Grass clippings and leaves may not be blown or swept into the street or gutter.



Commercial vehicles, RVs, and trailers may not be parked, stored, or kept on the street.





Property owners, agents, occupants, and renters have a duty and responsibility to keep their property clean and free of trash and litter.

For more information, or to report a code violation, call 209-5900 or visit us online:

www.bryantx.gov/ codeenforcement

The City of Bryan Code Enforcement department is responsible for handling code violations. Reporting a violation improves our ability to keep Bryan looking its best by focusing attention on our citizen's needs and concerns. Leaving contact information is vital to a thorough investigation.

VIOLACIONES COMUNES AL CÓDIGO



No está permitido que vehículos y equipos desechados, destrozados y abandonados sean estacionados, almacenados o mantenidos en cualquier propiedad pública o privada visible desde la calle u otro lugar público.

Vehículos y remolques deben ser estacionados en una superficie adecuada y no pueden ser estacionados, almacenados o mantenidos en el césped o la tierra.





Los recipientes de basura no pueden ser almacenados en la calle y deben ser devueltos de nuevo a la vivienda a más tardar 12 horas después de la recolección.

Los carteles de venta de garaje, anuncios, y cualquier otra señalización no pueden ser colocados en la vía pública, postes de electricidad, postes de luz, o en otro tipo de propiedad pública.



Los recortes de césped y las hojas no pueden ser soplados o barridos hacia la calle o alcantarillado.



Los vehículos comerciales, vehículos recreativos, y remolques no podrán ser estacionados, almacenados o guardados en la calle.





Los dueños, agentes, ocupantes e inquilinos de las propiedades tienen el deber y la responsabilidad de mantener la propiedad limpia y libre de basura y desperdicios. Para obtener más información, o para reportar una violación del código, llame al 209-5900 o visítenos en línea:

www.bryantx.gov/ codeenforcement

El departmento de Cumplimiento del Código de la Ciudad de Bryan es responsable del manejo de violaciones de código. Repotar una violación mejora nuestra capacidad para mantener el aspecto de Bryan lo mejor posible, centrando la atención en las necesidades y preocupaciones de nuestros ciudadanos. Dejar la información de contacto es vital para una investigación a fondo.