



The City of Harker Heights
305 Miller's Crossing
Harker Heights, Texas 76548
Phone 254/953-5600
Fax 254/953-5614

Mayor
Spencer H. Smith

Mayor Pro Tem
Michael Blomquist

City Council
Jennifer McCann
Jackeline Soriano Fountain
Lynda Nash
Jody Nicholas

March 25, 2021

Certified Mail # 7016 3560 0000 6480 4659 Return Receipt Requested

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

Re: Phase II MS4 Annual Report Transmittal for City of Harker Heights
TPDES Authorization: TXR040011

Dear Team Leader:

This letter serves to transmit the required annual report for the Texas Pollutant Discharge Elimination System Small Municipal Separate Storm Sewer System General Permit, Authorization Number TXR040011 for the City of Harker Heights.

The annual report is for Year 2. The reporting period's beginning 1/24/2020 and ending 01/23/2021.

A separate Notice of Change has not been submitted based on the fact that changes have not been proposed for the next permit year.

As required by the general permit, a copy of the report has been mailed to the TCEQ's regional office 9 in Waco, Texas.

Sincerely,

Mark Hyde
Director of Public Works



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Manager, Water Section
Waco Regional Office
Texas Commission on Environmental Quality
6801 Sanger Avenue, Suite 2500
Waco, Texas 76710-7826

Please find enclosed a copy of the 2020 MS4 Annual Storm Water Report for the City of Harker Heights. Should you have questions, please call me at 254-953-5641.

Sincerely,

A handwritten signature in black ink that reads "Mark A. Hyde". The signature is written in a cursive style with a large, stylized "H" at the end.

Mark Hyde
Public Works Director

Phase II (Small) MS4 Annual Report Form

TPDES General Permit Number TXR040000

A. General Information

Authorization Number: TXR040011

Reporting Year (year will be either 1, 2, 3, 4, or 5): 2

Annual Reporting Year Option Selected by MS4:

Calendar Year: _____

Permit Year: X

Fiscal Year: _____ Last day of fiscal year: (_____)

Reporting period beginning date: (month/date/year) 01/24/2020

Reporting period end date: (month/date/year) 01/23/2021

MS4 Operator Level: 2 Name of MS4: City of Harker Heights

Contact Name: Mark Hyde Telephone Number: 254-953-5641

Mailing Address: 305 Miller's Crossing, Harker Heights, TX 76548

E-mail Address: mhyde@harkerheights.gov

A copy of the annual report was submitted to the TCEQ Region: YES X NO _____

Region the annual report was submitted to: TCEQ Region 9 (Waco)

B. Status of Compliance with the MS4 GP and SWMP

1. Provide information on the status of complying with permit conditions:
(TXR040000 Part IV.B.2)

	Yes	No	Explain
Permittee is currently in compliance with the SWMP as submitted to and approved by the TCEQ.	Yes		The NOI renewal was submitted to the TCEQ on 7/19/19 and as of 01/23/21 it was still being processed.

Permittee is currently in compliance with recordkeeping and reporting requirements.	Yes		
Permittee meets the eligibility requirements of the permit (e.g., TMDL requirements, Edwards Aquifer limitations, compliance history, etc.).	Yes		
Permittee conducted an annual review of its SWMP in conjunction with preparation of the annual report	Yes		

2. Provide a general assessment of the appropriateness of the selected BMPs. You may use the table below to meet this requirement (**see Example 1 in instructions**):

MCM(s)	BMP	BMP is appropriate for reducing the discharge of pollutants in stormwater (Answer Yes or No and explain)
1: Public Education, Outreach and Involvement	1-1. Designate Stormwater Coordinator.	Yes, the Public Works Director has been designated the Stormwater Coordinator (SWC). The SWC coordinates permit compliance and reporting and oversees all aspects of the Stormwater Management Plan (SWMP). The SWC is able to monitor SWMP efficiencies and make changes to the BMPs if needed in order to maximize pollutant reductions.
1: Public Education, Outreach and Involvement	1-2. Develop One Brochure and Distribute to the Public (Brochure #13). Establish and maintain a list of available brochures.	Yes, the educational brochures are mailed to every resident and business in the City. The brochures inform residents of the proper use and disposal of potential contaminants and how they impact the Stormwater system. Most residents have voluntarily complied once they know the right procedure to follow.

MCM(s)	BMP	BMP is appropriate for reducing the discharge of pollutants in stormwater (Answer Yes or No and explain)
1: Public Education, Outreach and Involvement	1-3. Add Stormwater Information to the City's Website.	Yes, the City's website is reviewed and annually updated in order to provide easy access to educational materials on how to reduce pollutants in our watercourses. Without education there would be no decrease in pollutant discharges.
1: Public Education, Outreach and Involvement	1-4. Distribute Fact Sheet on Pet Waste.	Yes, developed a fact sheet on pet waste to be distributed from the animal shelter with adoptions. Most residents have voluntarily complied once they know the right procedure to follow. Numerical impact of this type of education was found in the TIAER study of the Nolan Creek watershed and the BRA's testing of the Trimmier Creek watershed. In both cases bacterial loading was shown to decrease since 2006.
1: Public Education, Outreach and Involvement	1-5. Install and Maintain Signs at Key Stormwater Outfalls.	Yes, maintain the fifteen (15) existing signs located at major Stormwater outfalls. Staff evaluated placement of five (5) potential sign locations. Signage is a visual reminder to the public to not pollute and that the watercourse is monitored. Staff has responded to less reports of debris at the outfall locations.
1: Public Education, Outreach and Involvement	1-6. Comply with State Public Notification Guidelines.	Yes, the City submitted a copy of the General Permit notice and publisher's affidavit to the TCEQ Chief Clerk. Adoption of and compliance with the general permit ensure that the City will continue to work toward a reduction of pollutants.
1: Public Education, Outreach and Involvement	1-7. Youth Group to Stencil Catch Basins and Flumes	Yes, this year Trail Life Troop 1274 placed 72 stormwater markers at catch basins, outfalls, and flumes. Local youth volunteer groups are the City's best advocates for protecting the stormwater collection system from pollutants. This BMP provides for direct education to ~10 youth and their parents and a visual reminder/indirect education to all residents.

MCM(s)	BMP	BMP is appropriate for reducing the discharge of pollutants in stormwater (Answer Yes or No and explain)
1: Public Education, Outreach and Involvement	1-8. Establish a Stormwater Committee	Yes, a Stormwater Committee has been established. The Committee ensures compliance with the selected BMP's, tracks BMP implementation and provides input to the City. One meeting was held on October 29, 2020 and 9 people attended.
1: Public Education, Outreach and Involvement	1-9. Hold Annual Household Hazardous Waste Day	Yes, the household hazardous waste day events are free of charge to residents and allow for the disposal of paint, herbicides, pesticides, fertilizer and other chemicals that otherwise could find their way into the stormwater collection system. Harker Heights' residents actively participate in the events. This year residents had two opportunities to participate in HHW events due to co-sponsoring by the Central Texas Council of Government (CTCOG). One regional HHW event was held in the City of Killeen on June 13, 2020, and one in Temple on October 24, 2020.
2: Illicit Discharge Detection and Elimination	2-1. Map Outfalls and Receiving Waters.	Yes, the City has an electronic map of the storm sewer system which it updates as new data becomes available. The map is available internally to City staff. The map is utilized to isolate illicit discharges in a more efficient manner and thereby reducing the impact of an illicit discharge into a watercourse.
2: Illicit Discharge Detection and Elimination	2-2. Develop Stormwater Related Ordinances.	Yes, the City has developed ordinances to improve Stormwater quality and reviews said ordinance annually. The ordinance provides the legal authority to enforce the SWMP.
2: Illicit Discharge Detection and Elimination	2-3. Program for Dry Weather Screening of Outfalls.	Yes, very small illicit discharges have been detected early and eliminated before becoming a problem.

MCM(s)	BMP	BMP is appropriate for reducing the discharge of pollutants in stormwater (Answer Yes or No and explain)
2: Illicit Discharge Detection and Elimination	2-4. Develop, Improve and Implement the Procedural System for Detecting and Eliminating Illicit Discharges and Develop an Associated Training Manual for City Employees.	Yes, annual training is provided to City employees to match changes in the field screening techniques and detection/elimination procedures.
2: Illicit Discharge Detection and Elimination	2-5. Develop System for Public to Report and Comment on Illicit Stormwater Sightings and Issues.	Yes, a Stormwater Hotline for normal business hours, after regular hours, weekends and holidays is posted on the City's Stormwater website. This provides residents with a way to contact the City to report illicit discharges and for the city to mitigate the impact by responding in a timely manner.
2: Illicit Discharge Detection and Elimination	2-6. Develop Location-Based Stormwater Related Data.	Yes, development of stormwater data including dry creek screenings, public complaints and investigations for resolving Stormwater issues. Incorporating all data into a single resource allows the City to respond in a more efficient and timely manner.
2: Illicit Discharge Detection and Elimination	2-7. Develop a Sampling, Testing and Data Collection Plan to Aid in Identifying/ Eliminating Contaminant Sources.	Yes, the upstream and downstream e-coli bacteria sampling information from other sources for Nolan Creek/South Nolan Creek and Trimmier Creek have helped in isolating areas contributing to higher e-coli levels in the streams. Staff has been able to focus education, maintenance and response measures accordingly in these areas.

MCM(s)	BMP	BMP is appropriate for reducing the discharge of pollutants in stormwater (Answer Yes or No and explain)
3: Construction Site Stormwater Runoff Control	3-1. Review Chapter 155 (Section 200, Building Permits) and Chapter 156: Erosion and Sedimentation Ordinance and Make Changes as Appropriate to Comply with Permit.	Yes, the ordinances are reviewed and modified as appropriate to comply with the requirements of the general permit.
3: Construction Site Stormwater Runoff Control	3-2. Develop or Verify Procedures in Place Related to Construction Projects.	Yes, the review of construction site plans, inspection of construction sites and training of Public Works staff related to construction site Stormwater runoff control are currently in place.
3: Construction Site Stormwater Runoff Control	3-3. Review Other Related Existing Ordinances Associated with Stormwater Runoff.	Yes, the ordinances are reviewed and modified as appropriate to comply with the requirements of the general permit.
4: Post-Construction Stormwater Management in New Development and Redevelopment	4-1. Develop Comprehensive Description of Post-Construction Stormwater Management Program.	Yes, the development of a comprehensive post construction stormwater management program description will enable the general public, development entities, and staff to understand and uniformly enforce design, installation, operation and maintenance of post construction stormwater BMPs. Installation of post construction BMPs helps to prevent and reduce the discharge of pollutants over time.

MCM(s)	BMP	BMP is appropriate for reducing the discharge of pollutants in stormwater (Answer Yes or No and explain)
4: Post-Construction Stormwater Management in New Development and Redevelopment	4-2. Review and Modify as Appropriate the Ordinances to Require Runoff Controls for New Development and Redevelopment.	Yes, the ordinance regarding runoff controls for new development and redevelopment is reviewed and modified as appropriate to comply with the requirements of the general permit.
4: Post-Construction Stormwater Management in New Development and Redevelopment	4-3. Create a Developer Guidance Document.	Yes, the development of a guidance document will help to clarify the pre-construction, construction and post-construction requirements and processes.
4: Post-Construction Stormwater Management in New Development and Redevelopment	4-4. Develop Materials Promoting the Reduction of Stormwater Runoff and Pollutants.	Yes, the development of informational brochures with topics including landscape design, xeriscaping, yard waste reuse, composting and control of pollutants in stormwater runoff. Most residents have voluntarily complied once they know the right procedure to follow.
5: Pollution Prevention & Good Housekeeping for Municipal Operations	5-1. Train all Public Works and Parks & Recreation Staff on Stormwater Management.	Yes, conducted 2 educational opportunities for staff. Provided 2-hour training for Public Works and Parks employees for the following: <ol style="list-style-type: none"> 1. Looking for illicit connections. 2. Hazardous material handling and storage. 3. Vehicle & equipment fueling and washing. 4. Handling and storing herbicides and pesticides.

MCM(s)	BMP	BMP is appropriate for reducing the discharge of pollutants in stormwater (Answer Yes or No and explain)
5: Pollution Prevention & Good Housekeeping for Municipal Operations	5-2. City Facility O&M Program.	Yes, an inventory of catch basins and detention facility inlets and trash racks has been developed and is amended as necessary. The Standard Operating Procedure (SOP) for disposal of street sweeping debris has been developed and is currently in use.
5: Pollution Prevention & Good Housekeeping for Municipal Operations	5-3. Targeted Wastewater Facilities Review.	Yes, the City conducts frequent inspections of wastewater facilities including lift stations, air release valves on force mains and trunk sewer mains in remote locations. Repeat sanitary sewer overflows (SSO's) in the wastewater collection system are included on a sewer line increased frequency cleaning list until permanent repair/replacement can be made. To reduce SSO's and increase capacity in the wastewater collection system, a minimum of 15% of the total collection system is cleaned with the Vactor-Jetrodder annually.
5: Pollution Prevention & Good Housekeeping for Municipal Operations	5-4. Seek Public Input on City Facilities and O&M.	Yes, a Stormwater Hotline for normal business hours, after regular hours, weekends and holidays is posted on the City Stormwater website for reporting pollution in the Stormwater system.

3. Describe progress towards achieving the goal of reducing the discharge of pollutants to the MEP. If no progress was made or the BMP did not result in a reduction in pollutants, provide an explanation. Use the table below to meet this requirement (**see Example 2 in instructions**):

MCM	BMP	Information Used	Quantity	Units	Does the BMP Demonstrate a Direct Reduction in Pollutants? (Answer Yes or No and explain)
1	1-1	Designate Stormwater Coordinator.	1	Coordinator	No, the coordination and oversight of all of the BMP's does not result in a direct reduction in pollutants. (Pollutant reduction cannot be quantified or measured)
1	1-2	Develop Brochures and Distribute to the Public. (Brochure #13)	8,167	Brochures	No, the brochures are for public educational purposes and do not result in a direct reduction in pollutants.
1	1-3	Add Stormwater Information to the City's Website.	2	Updates	No, the Stormwater section of the City website is for public educational purposes and contact information and does not result in a direct reduction in pollutants.
1	1-4	Distribute Fact Sheet on Pet Waste.	1,213	Pet Waste Fact Sheet	No, the fact sheets are for public educational purposes and do not result in a direct reduction in pollutants.
1	1-5	Install and Maintain Signs at Key Stormwater Outfalls.	15	Stormwater Outfall Signs	No, the stormwater signs are for public educational purposes and do not result in a direct reduction in pollutants.
1	1-6	Comply with State Public Notification Guidelines.	1	General Permit notice and publisher's affidavit	No, the copy of the General Permit notice and publisher's affidavit submitted to the TCEQ Chief Clerk's office does not result in a direct reduction in pollutants.

MCM	BMP	Information Used	Quantity	Units	Does the BMP Demonstrate a Direct Reduction in Pollutants? (Answer Yes or No and explain)
1	1-7	1-7. Youth Group to Stencil Catch Basins and Flumes	72	Buttons	Yes, this year Trail Life Troop 1274 placed 72 stormwater markers at catch basins, outfalls, and flumes. Local youth volunteer groups are the City's best advocates for protecting the stormwater collection system from pollutants. This BMP provides for direct education to ~10 youth and their parents and a visual reminder/indirect education to all residents.
1	1-8	Establish a Stormwater Committee.	1	Stormwater Committee	No, although the members of the stormwater committee are actively involved in all of the aspects of the stormwater management plan, there is not a direct reduction in pollutants.
1	1-9	Hold Annual Household Hazardous Waste Day.	2	Household Hazardous Waste Day	No, although the event provides a free drop off point for hazardous waste that would otherwise be thrown out on the ground, there is not a direct reduction in pollutants.
2	2-1	Map Outfalls and Receiving Waters.	1	Map Outfalls and Receiving Waters	No, the mapping is mainly for office and field use and does not result in a direct reduction in pollutants.
2	2-2	Develop Stormwater Related Ordinances.	4	Stormwater Related Ordinances	No, although the ordinances have provisions for enforcement, there is not a direct reduction in pollutants.

MCM	BMP	Information Used	Quantity	Units	Does the BMP Demonstrate a Direct Reduction in Pollutants? (Answer Yes or No and explain)
2	2-3	Program for Dry Weather Screening of Outfalls.	1	Dry Weather Screening of Outfalls	Yes, the dry weather screening of outfalls identifies and mitigates any illicit discharges resulting in a direct reduction in pollutants. (The illicit discharge can be quantified)
2	2-4	Develop, Improve and Implement the Procedural System for Detecting and Eliminating Illicit Discharges and Develop an Associated Training Manual for City Employees.	1	Procedural System and training manual for City employees for Detecting and Eliminating Illicit Discharges	No, the procedural system and training manual for City employees does not result in a direct reduction in pollutants.
2	2-5	Develop System for Public to Report and Comment on Illicit Stormwater Sightings and Issues.	1	System for Public to Report Illicit Stormwater Sightings	Yes, the identification and mitigation of illicit discharges does result in a direct reduction in pollutants.

MCM	BMP	Information Used	Quantity	Units	Does the BMP Demonstrate a Direct Reduction in Pollutants? (Answer Yes or No and explain)
2	2-6	Develop Location-Based Stormwater Related Data.	1	Location-Based Stormwater Data	Yes, records of complaints, illicit discharges and testing will help to identify and mitigate Stormwater issues resulting in a direct reduction in pollutants.
2	2-7	E-coli Sampling and Testing Plan.	1	E-coli CFU's/100 ml	Yes, the data collected to date in the Nolan Creek and Trimmier Creek tributaries has enabled field crews to focus on segments of the tributaries that have elevated e-coli levels. A measured reduction in e-coli levels in the tributaries is a direct reduction in pollutants.
3	3-1	Review Chapter 155 (Section 200, Building Permits) and Chapter 156: Erosion and Sedimentation Ordinance and Make Changes as Appropriate to Comply with Permit.	2	Stormwater Related Ordinances.	No, although the ordinances have provisions for enforcement, there is not a direct reduction in pollutants.

MCM	BMP	Information Used	Quantity	Units	Does the BMP Demonstrate a Direct Reduction in Pollutants? (Answer Yes or No and explain)
3	3-2	Develop or Verify Procedures in Place Related to Construction Projects.	1	Procedures in Place Related to Construction Projects.	No, the construction site plan review and construction site inspections do not have a direct reduction in pollutants.
3	3-3	Review Other Related Existing Ordinances Associated with Stormwater Runoff.	2	Stormwater Related Ordinances.	No, although the ordinances have provisions for enforcement, there is not a direct reduction in pollutants.
4	4-1	Develop Comprehensive Description of Post-Construction Stormwater Management Program.	1	Post-Construction Stormwater Management Program.	No, a post construction stormwater management program will not result in a direct reduction in pollutants.
4	4-2	Review and Modify as Appropriate the Ordinances to Require Runoff Controls for New Development and Redevelopment.	1	Ordinances requiring runoff control for new and re-development.	No, although the ordinances have provisions for enforcement, there is not a direct reduction in pollutants.

MCM	BMP	Information Used	Quantity	Units	Does the BMP Demonstrate a Direct Reduction in Pollutants? (Answer Yes or No and explain)
4	4-3	Create a Developer Guidance Document.	1	Developer Guidance Document.	No, a developer guidance document will not result in a direct reduction in pollutants.
4	4-4	Develop Materials Promoting the Reduction of Stormwater Runoff and Pollutants.	1	Materials Promoting the Reduction of Stormwater Runoff and Pollutants.	No, public educational materials promoting the reduction of Stormwater runoff and pollutants will not result in a direct reduction in pollutants.
5	5-1	Train all Public Works and Parks & Recreation Staff on Stormwater Management.	1	Training Public Works and Parks & Recreation Staff on Stormwater Management.	No, the training of Public Works and Parks & Recreation Staff on Stormwater Management will not result in a direct reduction in pollutants.
5	5-2	City Facility O&M Program.	1	City Facility O&M Program.	Yes, a City Facility O&M Program will result in a direct reduction of pollutants.
5	5-3	Targeted Wastewater Facilities Review.	1	Targeted Wastewater Facilities Review.	Yes, identification and mitigation of wastewater/bacteria exposure to stormwater does result in a direct reduction in pollutants.

MCM	BMP	Information Used	Quantity	Units	Does the BMP Demonstrate a Direct Reduction in Pollutants? (Answer Yes or No and explain)
5	5-4	Seek Public Input on City Facilities and O&M.	1	Seek Public Input on City Facilities and O&M.	No, public input on City Facilities does not result in a direct reduction in pollutants.

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 3 in instructions**):

MCM(s)	Measurable Goal(s)	Explain progress toward goal or how goal was achieved. If goal was not accomplished, please explain.
1-1	Maintain an officially designated Stormwater Coordinator and support City efforts to facilitate the SWMP by the City Council.	Met Goal, the Public Works Director has been designated the Stormwater Coordinator for the permit period and the SWMP was followed.
1-2	Develop and Distribute 5 separate brochures on stormwater management (1 each permit year). Maintain a list of available brochures and a record of distribution.	Met Goal, distributed 11,353 copies of brochure #13. This year's topic was on storm water runoff pollution prevention.
1-3	Continue to develop the stormwater page on the official City website.	Met Goal, added brochure #13 to the City's stormwater website. The brochure included storm water runoff pollution prevention.
1-4	Distributed Pet Waste Fact Sheet to pet stores, vet clinics, Animal Control for adoptions, and at animal related events.	Met Goal, distributed 1,213 copies of the Pet Waste Fact Sheet.
1-5	Install a minimum of 5 outfall signs and labels over the permit term. Maintain existing stormwater outfall signs.	Met Goal, maintained 15 existing stormwater outfall signs. Identified future locations for outfall signs.

MCM(s)	Measurable Goal(s)	Explain progress toward goal or how goal was achieved. If goal was not accomplished, please explain.
1-6	Submit a copy of the NOI ad publisher's affidavit to the TCEQ Chief Clerk.	Met Goal, The City submitted a copy of the General Permit notice and publisher's affidavit to the TCEQ Chief Clerk.
1-7	Contact youth and church groups. Install 25 curb markers on catch basins and flumes each year.	Exceeded Goal, Trail Life Troop 1274 installed 47 additional curb markers (72 total) on catch basins and flumes this year.
1-8	Maintain a standing stormwater committee. Track meetings attendance, agendas and topics of discussion, potential stormwater issues, initiatives, and decisions.	Met Goal, the 12th Stormwater Committee Meeting was held.
1-9	Hold or promote an annual Household Hazardous Waste Collection Day in the area.	Exceeded Goal, Two HHW Events were held this year in the Central Texas Council of Governments area.
2-1	Ongoing development and maintenance of the electronic map.	Met Goal, the electronic map was updated.
2-2	Ongoing review of stormwater ordinances for appropriateness and effectiveness. Prepare and present updates to City Council as necessary. Maintain a record of any revisions,	Met Goal, the current stormwater ordinances were not changed since they are meeting the requirements of the MS4 permit.
2-3	Continue to dry weather field screen as many outfalls as possible during the permit term. Record findings, source detection efforts & results, and source removal efforts & results.	Met Goal, the field screening findings were recorded into a spreadsheet.
2-4	Develop, improve & implement illicit discharge detection procedures and training materials.	Met Goal, a training manual was developed and distributed to Public Works and Parks Department employees.
2-5	Provide contact information on the City's website and on educational outreach materials to inform the public of the communication channels for stormwater issues.	Met Goal, the Stormwater Hotline and contact information are maintained on the City website as well as informational brochures.

MCM(s)	Measurable Goal(s)	Explain progress toward goal or how goal was achieved. If goal was not accomplished, please explain.
2-6	<p>Develop spreadsheets containing records of dry creek screenings, public complaints, testing, illicit discharges, investigations, septic tank inventories, resolution actions and outcomes related to stormwater issues in City drainage areas.</p> <p>Develop inventories of septic tank systems and other potential bacterial nutrient and contaminant sources within the City's drainage areas.</p> <p>Gather data regarding the location, age of septic system, and other data that can be used to spatially analyze and manage the stormwater issues in the city.</p>	Met Goal, spreadsheets for maintaining stormwater records are in use. The Bell County Public Health District has provided a partial list of OSSF records for septic system locations in Harker Heights.
2-7	Develop a sampling, testing and data collection plan to aid in identifying/eliminating e-coli bacterial impairment in Nolan Creek/South Nolan Creek and Trimmier Creek.	Met goal. The City has completed quarterly e-coli sampling on Nolan Creek/South Nolan Creek and Trimmier Creek for 2020. The Texas Institute for Applied Environmental Research (TIAER) and the City of Harker Heights Wastewater Plant has collected quarterly data for Nolan Creek/South Nolan Creek. The Brazos River Authority (BRA) has collected quarterly data for Trimmier Creek.
3-1	Review the Erosion and Sedimentation Control and the Building Permits sections of the City's code of ordinances and make updates as necessary.	Met Goal, the current Erosion and Sedimentation Control Ordinance is meeting the requirements of the MS4 permit.
3-2	Review, inspect & enforce construction site plans, construction sites; Train public works staff to develop and implement ordinances, programs and procedures training materials.	Met Goal, routines inspections were conducted on construction sites.

MCM(s)	Measurable Goal(s)	Explain progress toward goal or how goal was achieved. If goal was not accomplished, please explain.
3-3	Ongoing review of stormwater ordinances for appropriateness and effectiveness. Prepare and present updates to City Council as necessary. Maintain a record of any revisions,	Met Goal, the current stormwater ordinances were not changed since they are meeting the requirements of the MS4 permit.
4-1	Develop a comprehensive description of the Post-Construction Stormwater Management Program (SWMP).	Met Goal, the current Erosion and Sedimentation Control Ordinance is meeting the requirements of the MS4 permit.
4-2	Review existing ordinances. Prepare and present draft ordinance additions and changes to the City Council.	Met Goal, the current Stormwater ordinances are meeting the requirements of the MS4 permit.
4-3	Create developer guidance documents including flow charts clarifying the aspects of the entire ongoing development process of the City and prepare ordinance and requirement guides or references and related City contact information.	Met Goal, the Developer Guidance Document has been developed and is in use.
4-4	Develop an informational brochure each permit year promoting the reduction of Stormwater runoff and pollutants. Topics might include landscape design, xeriscaping, yard waste, reuse, composting and sources and control of stormwater pollutants.	Met Goal, additional brochures for the public were developed promoting the reduction of Stormwater runoff and pollutants. 34,507 Stormwater inserts, FOG inserts, and Compost inserts were mailed out throughout the permit year.
5-1	Develop & utilize Pollution Prevention and Good Housekeeping training for municipal operations (City Staff Training)	Met Goal, completed annual training for the public works and parks department.
5-2	Pollution Prevention and Good Housekeeping for Municipal Operations (City Facility O&M)	Met Goal, stormwater control procedures including the cleaning, wastes handled, and their disposal were completed.

MCM(s)	Measurable Goal(s)	Explain progress toward goal or how goal was achieved. If goal was not accomplished, please explain.
5-3	Targeted wastewater facilities review including inspection of lift stations, air release valves on force mains and remote trunk sewer mains. Tracking and mitigating sanitary sewer overflows.	Met Goal, targeted wastewater facilities were routinely inspected for proper operation.
5-4	Seek Public Input on City Facilities and O&M with a Stormwater Hotline.	Met Goal, the Stormwater Hotline was available to the public and staff followed up on all reports.

C. Stormwater Data Summary

Provide a summary of all information used, including any lab results (if sampling was conducted) to assess the success of the SWMP at reducing the discharge of pollutants to the MEP. For example, did the MS4 conduct visual inspections, clean the inlets, look for illicit discharge, clean streets, look for flow during dry weather, etc.?

The Texas Institute for Applied Environmental Research (TIAER) and the City of Harker Heights has collected e-coli data for Nolan Creek/South Nolan Creek at City limit upstream and downstream locations. Data for sample sites 11913 (Nolan Creek West City Limits), sample site 11911 (Nolan Creek East City Limits) and sample site 11912 (Nolan Creek immediately upstream of WWTP) can be found on Attachment 1. TIAER has concluded the e-coli contribution into Nolan Creek/South Nolan Creek is primarily from Nonpoint Sources. A local stakeholder committee facilitated by TIAER has been meeting to address the Nonpoint Source e-coli contribution into Nolan Creek/South Nolan Creek. The City of Harker Heights has four city staff members on the voluntary stakeholder committee. TIAER has submitted the Watershed Protection Plan for Nolan Creek/South Nolan Creek watershed to the TCEQ.

The Brazos River Authority (BRA) Clean Rivers Program has collected e-coli data for Trimmier Creek at the City limit downstream location and two upstream sampling locations. Sample sites 21689 and 21690 will serve as the Trimmier Creek North City Limits sample sites. E-coli data for sample site 18754 will serve as the Trimmier Creek South City Limits. E-coli data for sample sites 18754, 21689 and 21690 can be found in Attachment 2. The BRA has concluded the e-coli contribution into Trimmier Creek is primarily from Nonpoint Sources. The BRA had reduced stream sample collection in 2020 due to the COVID-19 pandemic.

D. Impaired Waterbodies

1. Identify whether an impaired water within the permitted area was added to the latest EPA-approved 303(d) list or the Texas Integrated Report of Surface Water Quality for CWA Sections 305(b) and 303(d). List any newly-identified impaired waters below by including the name of the water body and the cause of impairment.

Nolan Creek/South Nolan Creek Segment ID 1218 was listed in the 303(d) list for bacterial impairment in 1996. Trimmier Creek Segment ID 1216 was de-listed for bacteria impairment in 2014.

2. If applicable, explain below 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.

The City of Harker Heights has partnered with the Texas Institute for Applied Environmental Research (TIAER) along with the TCEQ to improve water quality in Nolan Creek/South Nolan Creek to remove the stream from the 303d list for e-coli bacterial impairment. The City will utilize data from the TIAER's stream sampling stations in Nolan Creek at the City limit upstream and downstream locations to monitor e-coli bacteria levels on at least a quarterly basis. The City of Harker Heights has also partnered with the Brazos River Authority (BRA) Clean Rivers Program to improve water quality in Trimmier Creek to remove the stream from the 303(d) list for e-coli bacterial impairment. Trimmier Creek Segment ID 1216A was removed from the 2014 303(d) list for bacterial impairment. The City will utilize data from the BRA's stream sampling stations in Trimmier Creek at the City limit upstream and downstream locations to monitor e-coli bacteria levels on at least a quarterly basis. Should the TIAER or the BRA be unable to collect quarterly samples in Harker Heights for e-coli monitoring, the City of Harker Heights Wastewater staff will collect quarterly grab samples at each sample site location and utilize the IDEXX method at the wastewater plant laboratory to determine the number of e-coli colony forming units/100 ml. for the annual Stormwater report. The Harker Heights wastewater staff investigates Nolan Creek/South Nolan Creek and Trimmier Creek within the Harker Heights city limits at least quarterly for illicit discharges. The City of Harker Heights plans to use the same type of BMP's generated by the Nolan Creek stakeholder

committee for Trimmer Creek to continue reducing the Nonpoint Source e-coli levels.

3. Describe the implementation of targeted controls if the small MS4 discharges to an impaired water body with an approved TMDL.

N/A

4. Report the benchmark identified by the MS4 and assessment activities: **N/A**

Benchmark Parameter <i>(Ex: Total Suspended Solids)</i>	Benchmark Value	Description of additional sampling or other assessment activities	Year(s) conducted

5. Provide an analysis of how the selected BMPs will be effective in contributing to achieving the benchmark: **N/A**

Benchmark Parameter	Selected BMP	Contribution to achieving Benchmark

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6. If applicable, report on focused BMPs to address impairment for bacteria:

Description of bacteria-focused BMP	Comments/Discussion
Develop Brochures and Distribute to the Public.	Educational brochures are mailed to every resident and business in the City. The brochures inform residents of the proper use and disposal of potential contaminants and how they impact the Stormwater system. Most residents will voluntarily comply once they know the right procedure to follow.
Develop a Sampling, Testing and Data Collection Plan to Aid in Identifying/Eliminating E-Coli Contaminant Sources.	The Texas Institute for Applied Environmental Research (TIAER) and the City of Harker Heights Wastewater Plant has collected quarterly data for Nolan Creek/South Nolan Creek. The Brazos River Authority (BRA) has collected quarterly data for Trimmier Creek.
Targeted Facilities Review.	Frequent inspection of wastewater facilities including lift stations, air release valves on force mains and trunk sewer mains in remote locations. Repeat sanitary sewer overflows (SSO's) in the wastewater collection system are included on a sewer line increased frequency cleaning list until permanent repair/replacement can be made. To reduce SSO's and increase capacity in the wastewater collection system, a minimum of 15% of the total collection system is cleaned with the Vactor-Jetrodder annually.

Seek Public Input on City Facilities and O&M.	A Stormwater Hotline for normal business hours, after regular hours, weekends and holidays is posted on the City Stormwater website for reporting pollution in the Stormwater system.
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7. Assess the progress to determine BMP’s effectiveness in achieving the benchmark.

For example, the MS4 may use the following benchmark indicators:

- number of sources identified or eliminated;
- number of illegal dumpings;
- increase in illegal dumping reported;
- number of educational opportunities conducted;
- reductions in sanitary sewer flows (SSOs); or
- increase in illegal discharge detection through dry screening.

Benchmark Indicator	Description/Comments
N/A	

E. Stormwater Activities

Describe activities planned for the next reporting year:

MCM(s)	BMP	Stormwater Activity	Description/Comments
1: Public Education, Outreach and Involvement	1-1. Designate Stormwater Coordinator	The Public Works Director is currently the Stormwater Coordinator who oversees all aspects of the Stormwater Management Plan (SWMP).	
1: Public Education, Outreach and Involvement	1-2. Add Stormwater Information to the City's Website.	Developed a web page devoted to Stormwater quality currently included on the City's official website. Update as necessary.	
1: Public Education, Outreach and Involvement	1-3. Develop Brochures and Distribute to the Public. (Brochure #13)	Brochure to educate the public on a variety of subjects such as explanations of a Stormwater system, household hazardous waste, illicit discharges and improper disposal of contaminants.	
1: Public Education, Outreach and Involvement	1-4. Distribute Fact Sheet on Pet Waste.	Update the fact sheet on pet waste as needed for distribution from the animal shelter with pet adoptions.	
1: Public Education, Outreach and Involvement	1-5. Install and Maintain Signs at Key Stormwater Outfalls.	Maintain fifteen (15) existing on major Stormwater outfalls.	

MCM(s)	BMP	Stormwater Activity	Description/Comments
1: Public Education, Outreach and Involvement	1-6. Comply with State Public Notification Guidelines.	The City submitted a copy of the General Permit notice and publisher's affidavit to the TCEQ Chief Clerk. The City is in compliance with State Public Notification Guidelines.	
1: Public Education, Outreach and Involvement	1-7. Youth Group to Stencil Catch Basins and Flumes	Utilize the local non-profit group to install a minimum of 25 curb markers on catch basins and flumes.	
1: Public Education, Outreach and Involvement	1-8. Establish a Stormwater Committee	Ensure compliance with the selected BMP's, track BMP implementation and documentation. Solicit input from the public and stake holders. Hold the fourteenth annual meeting in 2021.	

MCM(s)	BMP	Stormwater Activity	Description/Comments
1: Public Education, Outreach and Involvement	1-9. Hold Annual Household Hazardous Waste Day.	The Central Texas Council of Governments (CTCOG) will hold Household Hazardous Waste Events (HHHW) during the spring of 2021. These events will be advertised and free to Harker Heights residents.	
2: Illicit Discharge Detection and Elimination	2-1. Map Outfalls and Receiving Waters.	The electronic map of the Stormwater system will be updated as necessary.	
2: Illicit Discharge Detection and Elimination	2-2. Develop Stormwater Related Ordinances.	Stormwater ordinances will be updated as necessary to improve Stormwater quality.	
2: Illicit Discharge Detection and Elimination	2-3. Program for Dry Weather Screening of Outfalls.	Develop a record of field screening findings, source detection efforts and results and source removal efforts and results.	

MCM(s)	BMP	Stormwater Activity	Description/Comments
2: Illicit Discharge Detection and Elimination	2-4. Develop, Improve and Implement the Procedural System for Detecting and Eliminating Illicit Discharges and Develop an Associated Training Manual for City Employees.	Training updates will be provided to City employees to match changes in the field screening techniques and detection/elimination procedures. Implement the updated training manual.	
2: Illicit Discharge Detection and Elimination	2-5. Develop System for Public to Report and Comment on Illicit Stormwater Sightings and Issues.	The Stormwater Hotline has been added to the Stormwater page on the City website. Continue including the Stormwater Hot line to informational brochures.	
2: Illicit Discharge Detection and Elimination	2-6. Develop Location-Based Stormwater related Data	Acquire the data and organize it for location-based use.	
2: Illicit Discharge Detection and Elimination	2-7. Develop a Sampling, Testing and Data Collection Plan to Aid in Identifying/Eliminating Contaminant Sources.	Continue the quarterly e-coli sampling plan on Nolan Creek/South Nolan Creek and Trimmier Creek for upstream and downstream City limit locations. Identify potential additional sites for testing.	

MCM(s)	BMP	Stormwater Activity	Description/Comments
3: Construction Site Stormwater Runoff Control	3-1. Review Chapter 155 (Section 200, Building Permits) and Chapter 156: Erosion and Sedimentation Ordinance and Make Changes as Appropriate to Comply with the General Permit.	Update ordinances as necessary to reduce pollutants from construction site Stormwater runoff.	
3: Construction Site Stormwater Runoff Control	3-2. Develop or Verify Procedures in Place Related to Construction Projects.	Continue site plan review and permitting erosion control plans along with pre and post construction site inspections. Any necessary updates to be made in year 3 and 4 of the permit term with updates to the MS4 Training Manual made in years 3-5 of the permit term including calendar year 2019.	
3: Construction Site Stormwater Runoff Control	3.3 Review Other Related Existing Ordinances Associated with Stormwater Runoff.	Update Stormwater related ordinances as necessary to comply with the general permit.	

MCM(s)	BMP	Stormwater Activity	Description/Comments
4: Post-Construction Stormwater Management in New Development and Redevelopment	4-1. Develop Comprehensive Description of Post-Construction Stormwater Management Program.	Update post construction Stormwater management ordinances as necessary to comply with the requirements of the general permit.	
4: Post-Construction Stormwater Management in New Development and Redevelopment	4-2. Review and Modify as Appropriate the Ordinances to Require Runoff Controls for New Development and Redevelopment.	Update ordinances as necessary requiring runoff controls in new development and redevelopment. Any necessary updates to be made in years 3-5 of the permit term including calendar year 2019.	
4: Post-Construction Stormwater Management in New Development and Redevelopment	4-3. Complete and Publish the Developer Guidance Document.	Gather information to complete the Developer Guidance Document. Implement the document in years 3, 4 and 5 of the permit term including calendar year 2021.	

MCM(s)	BMP	Stormwater Activity	Description/Comments
4: Post-Construction Stormwater Management in New Development and Redevelopment	4-4. Develop Materials Promoting the Reduction of Stormwater Runoff and Pollutants.	Develop and distribute the Year 3 (2021) brochure including any of the following topics: landscape design, xeriscaping, yard waste reuse, composting and control of pollutants in Stormwater runoff.	
5: Pollution Prevention & Good Housekeeping for Municipal Operations	5-1. Train all Public Works and Parks & Recreation Staff on Stormwater Management.	Training for Public Works and Parks employees for the following Good Housekeeping topics: 1. Looking for illicit connections. 2. Hazardous material handling and storage. 3. Vehicle & equipment fueling and washing. 4. Handling and storing herbicides and pesticides. 5. Waste disposal.	

MCM(s)	BMP	Stormwater Activity	Description/Comments
5: Pollution Prevention & Good Housekeeping for Municipal Operations	5-2. City Facility O&M Program.	The inventory of catch basins, detention facility inlets and trash racks has been developed and will be amended as necessary. The Standard Operating Procedure (SOP) for disposal of street sweeping debris has been developed and is currently in use.	
5: Pollution Prevention & Good Housekeeping for Municipal Operations	5-3. Targeted Wastewater Facilities Review.	<ol style="list-style-type: none"> 1. Continue inspection of wastewater facilities including lift stations, air release valves on force mains and trunk sewer mains in remote locations. 2. Continue recording and repairing repeat sanitary sewer overflow (SSO) events in the wastewater collection system. 3. To reduce the occurrence of SSO's and increase the capacity in the wastewater collection system, a minimum of 15% of the total collection system will be cleaned with the Vactor-Jetrodder annually. 	

MCM(s)	BMP	Stormwater Activity	Description/Comments
5: Pollution Prevention & Good Housekeeping for Municipal Operations	5-4. Seek Public Input on City Facilities and O&M.	Maintain the Stormwater Hotline for normal business hours, after regular hours, weekends and holidays. The Hotline is posted on the City Stormwater website for reporting pollution in the Stormwater system.	

F. SWMP Modifications

1. The SWMP and MCM implementation procedures are reviewed each year.

Yes No

2. 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 (Submit NOC as needed)

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.

3. Explain additional changes or proposed changes not previously mentioned (i.e. dates, contacts, procedures, annexation of land, etc.).

As reported in the 2017 Annual Stormwater Report, in January 2016, the City of Harker Heights annexed 155.08 acres of land along the southern side of the City.

G. Additional BMPs for TMDLs and I-Plans

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)

H. Additional Information

1. Is the permittee relying on another entity to satisfy any permit obligations?

Yes No

If "Yes," provide the name(s) of other entities and an explanation of their responsibilities (add more spaces or pages if needed).

Name and Explanation:

The City of Harker Heights has partnered with the Texas Institute for Applied Environmental Research (TIAER) along with the TCEQ to improve water quality in Nolan Creek/South Nolan Creek to remove the stream from the 303(d) list for e-coli bacterial impairment. The City of Harker Heights has also partnered with the Brazos River Authority (BRA) Clean Rivers Program to improve water quality in Trimmier Creek to remove the stream from the 303(d) list for e-coli bacterial impairment. Trimmier Creek Segment ID 1216A was removed from the 2014 303(d) list for bacterial impairment. The City will be utilizing quarterly e-coli data from City limit upstream and downstream locations from each of the entities sampling stations.

Name and Explanation:

2.a. Is the permittee part of a group 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 authorization numbers, permittee names, and SWMP responsibilities of each member (add additional spaces or pages if needed):

Authorization Number: _____ Permittee: _____

Authorization Number: _____ Permittee: _____

Authorization Number: _____ Permittee: _____

Authorization Number: _____ Permittee: _____

I. Construction Activities

1. The number of construction activities that occurred in the jurisdictional area of the MS4 (Large and Small Site Notices submitted by construction site operators):

7

2a. Does the permittee utilize the optional seventh MCM related to construction?

Yes No

2b. 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

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).

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): Spencer H. Smith Title: Mayor

Signature:  Date: 3/25/2021

Name of MS4: City of Harker Heights

Name (printed): _____ Title: _____

Signature: _____ Date: _____

Name of MS4: _____

Name (printed): _____ Title: _____

Signature: _____ Date: _____

Name of MS4: _____

Name (printed): _____ Title: _____

Signature: _____ Date: _____

Name of MS4: _____

Name (printed): _____ Title: _____

Signature: _____ Date: _____

Name of MS4: _____

If you have questions on how to fill out this form or about the Stormwater Permitting program, please contact us at 512-239-4671.

Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512-239-3282.

Attachment 1

Nolan Creek/South Nolan Creek E-Coli Data								Collected by the City of Harker Heights
Date	Site 11913 (West City Limits) MPN/100 ml	Depth	Time	Site 11911 (East City Limits) MPN/100 ml	Depth	Clare Creek Flowing		Time
						Yes	No	
22-Jan-20	549.3	12"	2:00 PM	574.8	12"		X	2:11 PM
22-Feb-20	186.0	12"	11:00 AM	488.4	12"		X	11:20 AM
24-Mar-20	472.1	12"	9:00 AM	640.5	12"		X	9:15 AM
21-Apr-20	139.6	12"	8:30 AM	275.5	12"		X	8:15 AM
22-May-20	135.4	12"	8:45 AM	204.6	12"	X		8:50 AM
22-Jun-20	45.9	12"	7:50 AM	259.5	12"		X	7:50 AM
28-Jul-20	387.3	12"	9:00 AM	290.9	12"		X	9:25 AM
20-Aug-20	285.1	12"	9:45 AM	189.2	12"		X	9:35 AM
22-Sep-20	124.6	12"	3:40 PM	111.2	12"		X	3:30 PM
23-Dec-20	98.5	12"	1:25 PM	83.6	12"		X	1:35 PM
22-Jan-21	161.6	12"	8:40 AM	231	12"		X	8:50 AM

Attachment 2

Site	Collection Date	Collection Depth, meters	Comments	00010 Temp, deg. C	00078 Transparency, meters	00094 Specific Conductance, uS/cm	00300 Dissolved Oxygen, mg/L	00400 pH	31699 E. coli, MPN/100mL	72053 Days since significant Precipitation
18754	3/5/2020	0.3		15.4	0.19	445	10.2	7.9	2600	1
18754	9/23/2020	0.3		22.5	0.71	539	9.0	8.0	390	1
18754	12/29/2020	0.3		14.0	>1.20	665	10.2	8.0	110	10

Attachment 2

Site	Collection Date	Collection Depth, meters	Comments	00010 Temp, deg. C	00078 Transparency, meters	00094 Specific Conductance, uS/cm	00300 Dissolved Oxygen, mg/L	00400 pH	31699 E. coli, MPN/100mL	72053 Days since significant Precipitation
21690	3/5/2020	0.3		16.7	0.72	571	8.3	7.7	1800	1
21690	9/23/2020	0.3		22.6	>1.20	562	7.0	7.6	390	1
21690	12/29/2020	0.3		14.9	0.75	759	5.8	7.5	58	10