



**NPDES Phase II
Stormwater Annual Report**

**Municipal Separate Storm Sewer System (MS4)
Permit #MOR04C036**

**2022 MS4 Permit Report
Reporting Period Jan.1, 2020 to Dec. 31, 2021**

Minimum Control Measure #1: Public Education and Outreach

Target Audiences:	Residents, businesses, contractors, students and City officials and employees
Target Pollutants & Sources:	Improper use or disposal of lawn chemicals and yard, pet, business and construction waste. Trash from littering/dumping.

1. Status of Permit Compliance

Summary

All milestones and measurable goals have been met or are on track to meet the measurable goals with the exception of goals that required gatherings. Targeted audience mailings and social media press releases and articles appear to be the most effective means of engaging the public.

Status of Measurable Goals

Task/BMP	Measurable Goal	Interim Milestones	Implementation Goal Complete?			Accomplishments	
			Schedule	Yes	No		On-track
Distribute educational materials	Distribute 200 postcard or door hangers to targeted audiences	Identify targeted audiences	December 2021	X			Distributed 200 "What can YOU do to protect our Streams?" door hangers along stream corridors.
Use social media to issue press releases and articles	100 reach/engagements		Ongoing				<ul style="list-style-type: none"> • Average reach: 13,900 • Engagement (post clicks, likes, shares, comments) consistently between 120-150

2022 MS4 SWMP Report: Progress & Compliance

Status of Measurable Goals							
Task/BMP	Measurable Goal	Interim Milestones	Implementation	Goal Complete?			Accomplishments
			Schedule	Yes	No	On-track	
Stock City Hall informational kiosk brochures as needed	Distribute 100 brochures	Replenish quarterly or as needed	December 2021			X	Distributed 75 brochures. Limited City Hall public traffic much of reporting period.
Inlet stenciling	Stencil a minimum of ten (10) inlet tops	Map inlets for priority order of stencil or placarding	August 2021	X			Installed 10 "Drains to Stream" medallions on curb inlet tops during reporting period. All new inlets are stamped.
Install pet waste stations (and signage) along the City's trail system	Install six (6) pet waste stations	Acquire pet waste stations and map locations for installation	November 2021			X	2 Stations installed along Hawk Ridge Park Trail .
Install four (4) Stream/Riparian Zone signs	Install four (4) Stream/Riparian Zone signs	Acquire "Don't mow Let it Grow!" signs	June 2020	X			All Stream/Riparian zones are signed.
Update and maintain the City's stormwater program website	Update and maintain the City's stormwater program website yearly	Review yearly	June 2015	X			The City's stormwater program website was maintained and updated yearly. New SMP Draft Posted.
Advertise household hazardous waste (HHW) and prescription drug drop-off events	Advertise two events per year	Track amount of material collected	• HHW: Varies yearly. • Drug drop off: April and October annually	X			Two prescription drug drop-offs and one HHW events were advertised.

2022 MS4 SWMP Report: Progress & Compliance

Minimum Control Measure #1: Public Education and Outreach

Target Audiences: Residents, businesses, contractors, students and City officials and employees.

Target Pollutants & Sources: Improper use or disposal of lawn chemicals and yard, pet, business and construction waste. Trash from littering/dumping.

2. Summary of Public Education/ Outreach activities scheduled for the next reporting cycle:

The City has adopted a new Stormwater management Plan that focuses its outreach efforts into educating Residents, Developers and Contractors about stormwater quality with targeted mailings and training. Pet waste stations and signage will continue as new spaces are developed and all new inlets already require "Drains to Stream" stamps.

3. Proposed Changes to the Stormwater Management Plan, BMPs or measurable goals

Permit requirement 4.1.B Updated SMP to target Residents, Developers, Contractors, and Single Family Home Builders.

Permit requirement 4.1.C Plan, advertise, and staff one (1) HHW event and one (1) stream, lake, or watershed clean-up event.

2022 MS4 SWMP Report: Progress & Compliance

Minimum Control Measure #2: Public Participation / Involvement

Target Audiences: Residents, businesses, contractors, students and City officials and employees

Target Pollutants & Sources: Improper use or disposal of lawn chemicals and yard, pet, business and construction waste. Trash from littering/dumping.

1. Status of Permit Compliance

Summary

All milestones and measurable goals have been met or are on track to meet the measurable goals. The 24-hour Concern Hotline has been updated to simplify connectivity to the appropriate concern area or personnel. Questions gauging public perception, exposure to information and behaviors are included in the Citizen Survey. Volunteerism at stream clean up events and participation in HHW drop off events are increasing.

Status of Measurable Goals

Task/BMP	Measurable Goal	Interim Milestones	Implementation	Goal Complete?			Accomplishments
			Schedule	Yes	No	On-track	
Maintain a Stormwater Management page on the City's website	Track at least 50 visits to the website	Update the SMP and post the annual reports yearly	July 2014	X			Annual reports were posted yearly. 181 visits were tracked through the Erosion Control Certification Program.
Compile a list of HOAs, environmental groups, commercial and industrial businesses, and educational organizations	Compile a list of groups open to volunteer or educational opportunities	Partner with Community Development / Planning Departments	Update yearly	X			Created partnerships with the South Grand River Watershed Alliance and Stream Team for community clean-ups and educational opportunities.
Promote and assist in the implementation of a community clean-up event	Host one stream clean-up each year	Advertise clean-up events. Social media/signage/newspaper	March 2021	X			Hosted event March 19,2021.
Continue Household Hazardous Waste (HHW) events	Partner or host one event each year	Advertize HHW events	10/30/21	X			Raymore residents disposed of 43,880 lbs of HHW in 2021 (an increase of 2193 lbs from 2020). Hosted event 10/30/21

2022 MS4 SWMP Report: Progress & Compliance

Status of Measurable Goals							
Task/BMP	Measurable Goal	Interim Milestones	Implementation	Goal Complete?			Accomplishments
			Schedule	Yes	No	On-track	
Post the Stormwater Management Plan and annual reports on the City's website	Post the Stormwater Management Plan and annual reports on website	Update the SMP and post the annual reports yearly	July 2014	X			Stormwater Reports posted yearly from 2014-2021
Concern Hotline	Respond and track 100%	Review tracking effectiveness	February 2019			X	100% response rate achieved. A link has been added to send concerns directly to the appropriate page and respondent.
Stormwater Survey	Include stormwater outreach and attitude questions in the biennial City's Citizen Survey	Compile responses from previous surveys (2015, 2017, 2019, 2021) to track effectiveness of our outreach program	March 2021			X	The current Citizen Survey is being reviewed for outreach effectiveness and shifting Citizen concerns.
<p>2. Summary of Public Participation / Involvement activities scheduled for the next reporting cycle:</p> <p>The City has adopted a new Stormwater Management Plan that takes effect in 2022. The City will continue Stream clean-ups and HHW events as outlined in MCM 1. The 2022 SMP was posted for a 30 day comment period and a public meeting was held. In addition to the Concern Hotline, a new public inquiry and concern format called "TextMyGov" has been added to facilitate accepting inquiries.</p>							
<p>3. Proposed changes to the Stormwater Management Plan, BMPs or measurable goals:</p> <p>There are no significant changes to the Stormwater Management Plan</p>							

2022 MS4 SWMP Report: Progress & Compliance

Minimum Control Measure #3: Illicit Discharge Detection and Elimination							
Target Audiences:		Residents, Businesses, Contractors, Property Owners, and City Employees					
Target Pollutants & Sources:		Improper use or disposal of lawn chemicals, yard, pet, business and construction waste. Trash from littering/dumping.					
1. Status of Permit Compliance							
Summary							
All milestones and measurable goals have been met or are on track to meet the measurable goals. IDDE training of field staff is effective in detecting and reporting illicit discharges. In addition, the City mapped an additional 395 outfalls through reconnaissance under the outfall identification guidance. And has designated representative outfalls as required.							
Status of Measurable Goals							
Task/BMP	Measurable Goal	Interim Milestones	Implementation Schedule	Goal Complete?			Accomplishments
				Yes	No	On-track	
IDDE Inspection and Enforcement	<ul style="list-style-type: none"> Inspect all representative outfalls on a semi-annual basis. Inspect twenty-five (25) percent of Priority Area Businesses (Businesses where there is a higher likelihood of potential illicit discharge) yearly. 	<ul style="list-style-type: none"> Conduct dry weather screening on representative outfalls. Map interior outfalls. Update Priority area business (as necessary) Document locations of illicit discharge and actions taken 	May 2014	X			All representative outfalls and priority area businesses inspected. No illicit discharges discovered. Interior outfalls mapped.
Training and Outreach	Provide annual IDDE training to city employees whose duties place them frequently in the field	Provide spill kits at the Public Works Shop and in designated vehicles	Ongoing	X			Virtual training held with 17 participants
IDDE Control Ordinance	Maintain and review the SOPs and associated ordinance(s) for reporting, tracing, removing, and enforcing illicit discharges	Update ordinance and SOPs to reflect new permit conditions as needed	March 2019	X			SOPs updated to include new outfall data

2022 MS4 SWMP Report: Progress & Compliance

Status of Measurable Goals							
Task/BMP	Measurable Goal	Interim Milestones	Implementation Schedule	Goal Complete?			Accomplishments
				Yes	No	On-track	
HHW and Prescription drug drop-off events	Advertise and assist household hazardous waste (HHW) and prescription drug drop-off events	Advertise events on social media and signage for drug drop-off location in City Hall	(Host) October 2021	X			Raymore residents disposed of 43,880 lbs of HHW in 2021 (an increase of 2193 lbs from 2020). Hosted event 10/30/21
Sanitary sewer (I&I) investigation	Use digital TV to inspect 1000 feet of sanitary line per year	Add impaired pipe or line to the annual I&I repair project	June 2014		X		Inspected 575 feet of sanitary line
Storm System Mapping	Continue to update the GIS map adding all stormwater(interior) outfalls to the Representative Outfalls	Assist GIS Coordinator in setting parameters of outfalls. Review locations of Representative outfalls.	February 2019	X			Mapped 395 additional outfalls and 11 Representative outfalls.
<p>2. Summary of Illicit Discharge Detection and Elimination activities scheduled for the next reporting cycle:</p> <p>Dry weather outfall and priority area screening, employee training and HHW events will continue into the next reporting period. Representative outfalls will be revised based on additional 395 outfalls mapped. Unmet goal in sanitary sewer investigation due to Covid related staffing issues.</p>							
<p>3. Proposed changes to the Stormwater Management Plan, BMPs, or measurable goals:</p> <p>Permit requirement 4.3.D 60% of outfalls an 100% of priority areas will be screened within the permit cycle.</p> <p>Permit requirement 4.3.L Update tracking system and database to track screening and illicite discharges.</p>							

2022 MS4 SWMP Report: Progress & Compliance

Minimum Control Measure #4: Construction Site Runoff Control							
Target Audiences:	Builders , Contractors , Developers , Residents, and Cty Inspectors						
Target Pollutants & Sources:	Sediment and sediment tracking, litter, concrete truck washout, hazardous material from construction sites						
1. Status of Permit Compliance							
Summary							
All milestones and measurable goals have been met or are on track to meet the measurable goals. The City continues to review and inspect 100% construction plans and require erosion control certification for builders. Sediment and erosion control plans are integrated into all site plans (regardless of size) and SWPPPs are required for site plan reviews greater than one acre and commercial construction.							
Status of Measurable Goals							
Task/BMP	Measurable Goal	Interim Milestones	Implementation Schedule	Goal Complete?			Accomplishments
				Yes	No	On-track	
Erosion control Certification and Training for all single and multi-family home builders	Educate builders on erosion control requirements and penalties	Post link on City website to online training	May 2015	X			147 Builder certifications have been issued
Pre-Construction Site Plan Review	Continue to review 100% of residential and commercial construction sites	Track commercial and residential site plan reviews	July 2014	X			• 224 Residential and 32 commercial sites reviewed
Erosion Control plan review and inspection	Continue to inspect and review 100% of residential and commercial construction sites	Track commercial and residential site erosion control reviews and inspections	July 2015	X			• 224 Residential and 32 commercial sites reviewed
Construction Site Inspection and Enforcement	Review Ordinance		August 2017	X			Ordinance revised to clarify penalties for non-compliance
Construction Site Runoff Ordinance	Review Ordinance		August 2018	X			No revision necessary

2022 MS4 SWMP Report: Progress & Compliance

Status of Measurable Goals							
Task/BMP	Measurable Goal	Interim Milestones	Implementation Schedule	Goal Complete?			Accomplishments
				Yes	No	On-track	
Enforcement of Construction site runoff violations	Ensure the control of site run-off by education and/or penalties for non-compliance	Attach erosion control and vegetative restoration requirements to Land Disturbance Permit packages	August 2017	X			Erosion control regulations and penalties for are attached to all Land Disturbance packets. No enforcement action was taken on any commercial construction sites in this reporting period.
<p>2. Summary of Construction Site Runoff Control activities scheduled for the next reporting cycle:</p> <p>BMPs from the previous reporting period are deemed effective and shall be continued. Enforcement tracking of residential construction site to be updated to track offenders over multiple sites (single family).</p>							
<p>3. Proposed changes to the Stormwater Management Plan, BMPs, measurable goals:</p> <p>Permit Requirement 4.4.C Plan Review Checklist revised</p> <p>Permit Requirement 4.4 D Clarify Escalating Enforcement Actions</p> <p>Permit Requirement 4.4.F Update active land disturbance site tracking and inventory</p>							

2022 MS4 SWMP Report: Progress & Compliance

Minimum Control Measure #5: Post Construction Runoff Control

Target Audiences:	Builders, Contractors, Developers and City Inspectors
Target Pollutants & Sources:	Sediment, litter, stormwater runoff

1. Status of Permit Compliance

Summary

All milestones and measurable goals have been met or are on track to meet the measurable goals. The City continues to promote examples of post-construction BMPs in new and redevelopment construction. The City is beginning construction of a natural/native habitat area that will showcase BMP's.

Status of Measurable Goals

Task/BMP	Measurable Goal	Interim Milestones	Implementation Schedule	Goal Complete?			Accomplishments
				Yes	No	On-track	
Stormwater BMP Inspection and Enforcement	Inspect 50% public and privately owned BMPs	Compile an inventory of all public and privately owned BMPs	June 2017			X	40% of known BMP's inspected. Inventory in the process of being update and compiled.
Stormwater Treatment Ordinances	Adopt and maintain Post-Construction Runoff Control ordinances	Present Post- Construction Treatment Requirement and Stream Buffer ordinances to the Planning Commission	June 2015	X			Ordinances adopted by Planning Commision: <ul style="list-style-type: none"> • Section 450.080 Stormwater Treatment Facility Plan Requirements • Section 450.090 Permit Procedures, Requirements, and Performance Surety. • Section 450.100 Construction Inspections • Section 450.100 Maintenance and Repair of Facilities • Section 450.120 Enforcement and Penalties

2022 MS4 SWMP Report: Progress & Compliance

Status of Measurable Goals

Task/BMP	Measurable Goal	Interim Milestones	Implementation Schedule	Goal	Complete?		Accomplishments
				Yes	No	On-track	
BMP Maintenance Plans and Agreements	Require maintenance plans and bonds for all Stormwater BMPs constructed	Adopt ordinance Section 450.100-Maintenance and Repair of Facilities	2015	X			Maintenance plans and bonds on file for all structural stormwater BMPs after 2015. 1 BMP O&M plans and bonds were filed in this reporting period.
Review Municipal Code Ordinances	Incorporate standards and guidelines for flexible design criteria for Post-Construction BMPs.	Convened Native and Adaptive Landscapes committee	May 2017	X			Ordinances reviewed in process of new 2021-2026 SMP.

2. Summary of Post Construction Runoff Control activities scheduled for the next reporting cycle:

Post construction inspection and enforcement ordinances are in place and operational. In the next reporting cycle an emphasis on tracking owners and maintenance enforcement in BMPs constructed before required maintenance agreements will be in effect.

3. Proposed changes to the Stormwater Management Plan, BMPs, or measurable goals:

- Permit Requirement 4.5.C Adopt new Plan Review Checklist
- Permit Requirement 4.5.E Clarify BMP Inspection Frequency
- Permit Requirement 4.5.L Require BMP Training for City staff.

2022 MS4 SWMP Report: Progress & Compliance

Minimum Control Measure #6: Pollution Prevention/ Good Housekeeping							
Target Audiences:	Municipal employees						
Target Pollutants & Sources:	Improper storage, use or disposal of fertilizers, herbicides, solvents, petroleum products. Sediment, litter and organic debris.						
1. Status of Permit Compliance							
Summary							
All milestones and measurable goals have been met or are on track to meet the measurable goals.							
Status of Measurable Goals							
Task/BMP	Measurable Goal	Interim Milestones	Schedule	Yes	No	On-track	Accomplishments
Training for Public Works and Parks employees	Conduct annual training and new employee training as needed	Continue to track the number of trainings conducted and participation	February 2015	X			Virtual training held
Operations and Maintenance	Develop site specific SWPPP, O&M manuals and SOPs for City facilities	Update as new Municipal facilities are built or added	July 2015	X			O&M and SWPPPs added to reflect 1 new Municipal Building
Street Sweeping	Sweep all paved streets and municipal parking lots a minimum of two (2) times	Track lane miles of sweeping operations and estimated amount of debris removed	Twice a year (Fall and Spring)	X			223 Lane miles swept in 2021.
Inlet cleaning	Clean and inspect twenty-five percent (650) storm sewer inlets	Annually track and map inlets inspected and cleaned	Ongoing		X		143 Inlets cleaned
Inspection	Conduct random inspections at Municipal facilities	Educate staff on pollution prevention if violations are found	Ongoing	X			One inspection conducted.
2. Summary of Pollution Prevention / Good Housekeeping activities scheduled for the next reporting cycle:							
All Good Housekeeping activities will continue throughout the next reporting cycle.							
3. Proposed Changes to the Stormwater Management Plan, BMPs, or measurable goals:							
Permit Requirement 4.6.A Update Municipal Employee Training Schedule							