



## **City of China Grove Storm Water Management Program (SWMP)**

### **Introduction**

The City of China Grove (City) has prepared the below Storm Water Management Program (SWMP) to accompany the City's Notice of Intent (NOI) for Small Municipal Separate Storm Sewer Systems (MS4) authorized under TPDES Phase II MS4 General Permit TXR040000.

This program has been established to meet the minimum requirements so the City will be able to monitor and control storm-related surface water discharges. The City is a Level 1 MS4 due to its population being less than 10,000. As such, the below SWMP centers around the five required Minimum Control Measures (MCM's) 1 – 5 for a Level 1 community.

### **Background**

Per the 2010 US Census, the City of China Grove has a population of 1,179. Current population estimates are not available but expected to be approximately 1,200 residents. The City encompasses an incorporated area of approximately 4.3 square miles. The minimum lot size by code is  $\frac{3}{4}$  acre. This minimum lot size applies to all anticipated land uses: residential, commercial, and industrial. The result is that China Grove enjoys a very low percentage of impervious cover.

All sewage treatment is by way of septic tanks; there is no sewer collection system within the City and no plans to add one at this time. Our water purveyor is the San Antonio Water System (SAWS).

The City of China Grove's streets are all bar ditch sections (no curb or curb and gutter). As a result, all runoff water is managed in earthen channels and ditches with culverts and/or low water crossings where surface water crosses the City streets.

The above conditions offer a number of advantages in terms of surface water quality. It also means that the City's Level 1 SWMP will focus on our unique needs as a community.

Runoff from the City of China Grove discharges indirectly to Classified Segment 1911 of the Upper SA River. This is a Category 4 impaired water body with an established TMDL for bacteria. The waste load allocation (WLA) for the Upper San Antonio River is 17,331,027 ( $10^6$  org/day).

## **MCM 1: Public Education, Outreach, and Involvement**

The City's primary methods of delivering information to the community is through the City's website and our local newspaper, the Wilson County News. The City's web address is <https://www.cityofchinagrove.org/>. We propose to use these outlets as well as regular public hearings and announcements prior to City Council meetings.

The target audiences for MCM 1 will be predominately the general public, but City employees and businesses will be targeted in the outreach messaging as well.

Our planned activities under this MCM are as described below. Due to the unique nature of existing and proposed development in the City, the focus of our education, outreach, and involvement activities under MCM 1 will be in the following areas. (Livestock wastes were considered as an area of focus but it was ruled out due to the fact that City codes limit owners to one head per acre of vacant land. This concentration of livestock is well below the limit where runoff issues would become problematic.):

1. Used oil and household hazardous waste
2. Pesticides, herbicides, and fertilizer management
3. Other lawn and garden activities
4. Pet waste management
5. Construction-related erosion control and hazardous waste management

### Distribute Educational Materials Via Website and Local Newspaper

The City will prepare four different written messages with exhibits for each of the four focus areas listed immediately above. These will be published quarterly (alternating each quarter) on both the City's website and in the local newspaper.

### Short Announcement and Presentation at City Council Meetings

The City Administrator or City Engineer will make announcements regarding the City's MS4 permit during the announcements phase at the beginning of City Council meetings. These presentations will be coordinated among the four focus areas and will be made on a quarterly cycle beginning with the September 2019 City Council meeting.

### Public Notice Requirements

The City also proposes to adhere to the Public Notice requirements by publishing the approved SWMP with any updates/revisions on the City's official web page. We will also publish the current Annual Report on the website.

*Table 1 – MCM 1 Quantifiable Targets and Deadlines*

BMP/Activity	Quantifiable Target	Deadline
Distribute educational materials via website	Quarterly	April 1, 2021
Distribute educational materials via local newspaper	Quarterly	January 31, 2021
Presentations at City Council meetings	Quarterly	September 1, 2020
Public notice requirements		
SWMP on website	Each New Update	September 1, 2020
Annual report on website	Annually	August 1, 2021

## **MCM 2: Illicit Discharge Detection and Elimination**

The City has reviewed our broader land use patterns and determined that the below list of illicit discharges will be the focus of our MCM 2 efforts:

- Direct discharge of sanitary wastewater
- Untreated effluent from septic tanks
- Car Wash/Equipment Wash down wastewater
- Improper oil disposal
- Radiator flushing disposal
- Laundry/Dry Cleaning wastewater
- Spills from auto and truck crashes
- Improper disposal of auto and household toxins

The City's planned BMP's/Activities in support of this MCM are as described here:

### MS4 Phase II Ordinance

A draft ordinance has been prepared following TCEQ guidelines within the model ordinance published on the TCEQ website. The draft ordinance meets all the minimum requirements with some enhancements most notably in the Enforcement Section. A copy of the draft Ordinance is included as an Appendix to this SWMP. This Ordinance is expected to be voted by City Council for ratification by the end of the first quarter of the 2020 Calendar Year.

### MS4 Map

Being that the City has no storm sewers, a storm sewer map will not be developed at this time. Record drawings will be saved and committed to the City's database in the event any new developments involve the construction of storm sewers.

One required element that the City will implement early in the permit period is the development of an "MS4 Map" that will depict the MS4 outfalls and the names and locations of surface waters receiving discharge from the City's MS4.



### Detect and Eliminate Illegal Dumping and Non-Storm Water Discharges

The City will conduct Dry Weather Screening of its storm water outfalls. All of the outfalls will be screened each year during the term of the permit.

If a potential illicit discharge, illicit connection, or improper disposal is identified, the assigned City staff member will investigate the discharge. If the discharge is on the surface, such as in a street, alley, or a drainageway, the discharge will be visually traced back to its apparent source.

Should an illicit discharge, illicit connection, or improper disposal be confirmed, the assigned City staff member will initiate corrective actions to eliminate the discharge. The process for eliminating the discharge is detailed below:

1. The City's code enforcement inspector, upon confirming a violation will issue a Notice of Violation and will establish the appropriate time frames to correct the code violation(s).
2. The Notices of Violation will allow up to 14 calendar days for the problem to be rectified unless the discharge is a hazardous material in which case, emergency response agencies will be immediately notified of the spill/discharge.
3. Upon the final re-inspection, if the violation(s) still exist and there has been no response or improvement by the property owner then the inspector will issue a citation. Enforcement continues until the violations are abated. Under the City's MS4 Ordinance the violator can be subject to a fine of up to \$500 per day per violation plus the City's costs to inspect, manage, and oversee the violation.
4. If the compliance is not reached through the above actions, then the case will be referred to the City Attorney for further action, which may include filing of a Chapter 54 lawsuit to obtain a Permanent Injunction.

### Provide Pet Waste Station at the City Hall Complex

The City will install a pet waste station at the City Hall Complex that will be available for use by people who walk their pets in the public lands in and around the City Hall Complex.

### MS4 Staff Training

City employees will be educated and instructed on how to report any suspected illicit discharge, illicit connection, and/or improper disposal to the Stormwater Services Division.

### Facilitate Public Reporting of Illicit Discharges (Hot Line)

Citizens will be advised to call the City Hall main number to report unusual flowing water in streets, alleys, or drainageways during dry weather. No specific "hot line" will be set up for this permit element as China Grove is a small municipality and we expect very few calls to report spills and discharges.

Table 2 – MCM 2 Quantifiable Targets and Deadlines

BMP/Activity	Quantifiable Target	Deadline
MS4 Phase II Ordinance	By End of September 2019	October 1, 2020
MS4 Map	By End of CY 2020	December 31, 2021
City Staff Conduct Inspections in Response to Complaints	Within 72 Hours of Complaint	December 31, 2020
Detect and Eliminate Illegal Dumping and Non-Stormwater Discharges	Screen All Outfalls Bi-Annually	June 1, 2021
Provide Pet Waste Station at the City Hall Complex	Station In-place and Stocked	February 1, 2021
MS4 Staff Training	Train 80% of MS4 Staff Quarterly	December 1, 2021
Facilitate Public Reporting of Illicit Discharges	Establish Reporting Procedures	September 1, 2021

### MCM 3: Construction Site Storm Water Runoff Control

This section describes a program to limit the discharge of pollutants from construction sites into the MS4. The City plans to implement MCM 3 by way of the six (6) below BMP's/Activities.

Construction Site Pollution Prevention – The City has developed a draft MS4 Ordinance that includes provisions which will allow the City to collect Stormwater Pollution and Prevention Plans (SWPPP) for construction activities. Furthermore, anytime a proposed development activity will disturb one (1) acre or more of land, SWPPP's must be reviewed and approved by the City prior to any site construction activities.

Below are some of the key facets to be addressed by all SWPPP's:

- Suspended solids
- Site waste
- Litter (floatables)
- Building materials
- Truck washout areas
- Chemicals
- Sanitary waste
- Site inspection process and frequency

This ordinance also addresses Fines, Warning Notices, and Stop Work Orders to construction site operators who are not using and maintaining appropriate BMP's as agreed during the construction plan review and approval process

#### Site Operators Use Erosion and Sediment Controls

The City of China Grove adopts City of San Antonio temporary BMP's for this MCM. This will go into effect with the approval of this SWMP and the standards will be updated as the City of San Antonio updates their standards.

The reason for this is that China Grove is in the same County as the City of San Antonio. The standards adopted by San Antonio meet all minimum standards and are familiar to the operators in the area. Also, adopting the standards with all current revisions ensures that the City of China Grove will be utilizing the most current BMP's available.

#### Site Operators Control Waste from Sites

This BMP/Activity is embedded within the foregoing discussion regarding MCM 3.

#### Site Plan Review

The proposed MS4 Ordinance will require submission and approval of a Stormwater Pollution Prevention Plan (SWPPP) by site operators who disturb over one acre of land. Site operators will further be required to provide copies of their TPDES "Notice of Intent" and their TPDES "Notice of Termination". The SWPPP's will be predicated on the adopted BMP's and must address the following:

- Suspended solids
- Site waste
- Litter (floatables)
- Building materials
- Truck washout areas
- Chemicals
- Sanitary waste

#### Site Inspections

All construction sites within the MS4 will be subject to inspection by City staff or assigned contractors. The City maintains a list of construction sites that discharge directly to the MS4 and meet the requirements of the TPDES permit. Additionally, the City maintains a list of construction sites that don't meet the TPDES permit requirements (<1.0 acres and not part of a larger common plan of development) but have a high probability of discharging pollutants to the MS4. The City will have the authority to inspect these sites and require BMP's and good housekeeping measures if deemed necessary, per the proposed Site Pollution Prevention Ordinance.

A person commits an offense if the operator of a construction site fails to submit a copy of the Notice of Intent or Construction Site Notice when applicable.

If an inspector observes a potential problem that might result in the discharge of pollutants to the MS4, the inspector will have the following remedies available:

- Work with the contractor to achieve voluntary compliance.
- Issue a Stop Work Order.
- Enact fines on the operator for any violations of the City Code.



### Facilitate Public Reporting

The City expects to receive public complaints concerning mud in the street or unusually muddy water in streams. Such complaints may be filed in writing (mail, email, or FAX) or by calling City Hall and making the report. These complaints will be forwarded to the onsite inspector for immediate clean up and to ensure all temporary BMP's are properly installed and maintained.

The City will include information about construction site BMP's and the reporting process among materials distributed in response to MCM 1 - Public Education, Outreach, and Involvement.

*Table 3 – MCM 3 Quantifiable Targets and Deadlines*

BMP/Activity	Quantifiable Target	Deadline
MS4 Phase II Ordinance	By End of September 2019	October 1, 2020
Site Operators Use Erosion and Sediment Controls	90% Compliance	January 1, 2023
Site Operators Control Waste from Sites	90% Compliance	January 1, 2023
Site Plan Review	Full Compliance	January 1, 2023
Site Inspections (Bi-weekly)	90% Compliance	January 1, 2023
Facilitate Public Reporting	Establish Reporting Procedures	January 1, 2023

### **MCM 4: Post-construction Storm Water Management in New Development and Redevelopment**

This section describes the City's program for controlling the discharge of pollutants to the MS4 from areas of new development or areas of significant redevelopment. The proposed BMP's for MCM 4 are described below:

#### Ordinance or Other Regulatory Mechanism

Development within the City of China Grove already embodies several elements that reduce the impact of new development and redevelopment. For example, the City's current Zoning Code specifies a minimum lot size of  $\frac{3}{4}$  acre. This minimum lot size applies to all anticipated land uses: residential, commercial, and industrial. The result is that the City has a very low percentage of impervious cover.

The City's streets are all bar ditch sections (no curb or curb and gutter). As a result, all runoff water is managed in earthen channels and ditches with culverts and/or low water crossings where surface water crosses the City streets.

In 2019, China Grove passed an all- new Storm Water Management Ordinance. This Ordinance requires storm water detention for all new development unless the applicant can certify no adverse impact under free release conditions. The City's codes do not disallow curb, gutter, and storm drains on new or redeveloped streets. The City will work on regulations to promote Low-Impact Development (LID) on new development and redevelopment with an expected ratification by the end of the MS4 Permit term.

In the interim, the City will continue to enforce its existing development and zoning ordinances. The City will indicate in its annual report whether water quality conditions within its MS4 have changed significantly.

#### Ensure Long-Term Operation and Maintenance of Structural and Non-Structural BMP's

The proposed LID regulations mentioned above will include provisions to ensure the long-term operation and maintenance of post-construction BMP's. We have little to report on this issue at this time but would like to state that the City exemplifies a low-impact concept in the way development has been previously controlled and future regulations will advance and strengthen what has come before. Additionally, the controls that will be put forward will be commensurate with the size of the City and the specific needs of China Grove.

#### Document and Maintain Records of Enforcement Actions

The City shall document and maintain records of enforcement actions in the City's permanent records. These records shall include date of complaint, date of citation, who or what entity created the illegal discharge as well as when and in what manner the violation was resolved. The records will also include any follow-up actions and schedule for same. These will be maintained as permanent records, never to be expunged.

*Table 4 – MCM 4 Quantifiable Targets and Deadlines*

BMP/Activity	Quantifiable Target	Deadline
Ordinance or Other Regulatory Mechanism	LID Ordinance by End of Permit Period	January 1, 2023
Ensure Long-Term Operation and Maintenance of Structural and Non-Structural BMP's	LID Ordinance by End of Permit Period	January 1, 2023
Document and Maintain Records of Enforcement Actions	Within Two Weeks of Resolution of Enforcement Action	February 1, 2021

#### **MCM 5: Pollution Prevention and Good Housekeeping for Municipal Operations**

This section describes a program which will provide for the development and implementation of a pollution prevention and good housekeeping program for municipal buildings and operations.

The City of China Grove has a single property with two buildings. One building is City Hall and the other building houses our volunteer Fire Department. The City owns a number of vehicles for fire and police. All vehicles are serviced off-site at commercial repair shops. This property will be included in the Pollution Prevention and Good Housekeeping Program.

The City currently does not have any street sweeping or mowing operations that are performed outside of the municipal property described above.

The proposed BMP's/Activities for MCM 5 are described below:



### Train Municipal Employees

The City will prepare a Pollution Prevention and Good Housekeeping Handbook for both of the City's buildings.

Included in this program the City will provide training for all employees including employees who are involved in municipal operations. This training will be administered bi-annually and will focus on spill prevention, pest control, waste handling, and other topics to be identified at a later date. Execution of this activity will be memorialized and reported through the City's annual report.

### Develop Spill Prevention Plans for Municipal Facilities

Under this task, the City will assess the on-site stored materials and the establish specific plans and procedures to prevent spills of any materials that may affect water quality if released directly into the MS4.

The plan will address known materials and potential pollutants, how they should be stored, and how they can be contained in the unlikely event of a spill. Part of this activity will involve procurement of equipment and materials to contain/clean up any spills. These will be selected specifically relative to the materials of concern.

### Encourage Non-chemical Pest Control

The City will include controls to reduce the discharge of pollutants related to the storage and application of pesticides in the Pollution Prevention and Good Housekeeping Handbook. We will also take measures to move away from chemical pesticide and incorporate more structural and organic solutions.

### City-Engaged Contractors Shall Adhere to All MS 4 Provisions

All City contracts will include a special clause outlining the local rules for management of site waste and runoff controls. The City will monitor all work sites on a weekly basis to ensure full compliance with all relevant standards and requirements. Each site visit will be documented in writing and with digital pictures to become part of the permanent record.

*Table 5 – MCM 5 Quantifiable Targets and Deadlines*

BMP/Activity	Quantifiable Target	Deadline
Train Municipal Employees	Develop Handbook	December 31, 2021
Develop Spill Prevention Plans for Municipal Facilities	Plan/Eqmt./Mat'ls.	January 1, 2023
Encourage Non-chemical Pest Control	75% Reduction in Chem.	January 1, 2023
City-Engaged Contractors Shall Adhere to All MS4 Provisions	Weekly Inspections	February 1, 2021

## **MCM 6: Industrial Storm Water Sources (N/A)**