JC’s Phase II MS4s

- 16 MUDs in surrounding Fort Bend, Brazoria, and Montgomery Counties
- 2 MUD’s in the Austin Area
- 2 Phase II Cities
**Phase II MS4 Permit**

**MUDs and Smaller Cities**

- Have limited manpower
- Resources are restricted
- Budgets are constrained
- Enforcement ability is limited
- Require cost-effective solutions
- Provide practical options
- Innovative implementation measures

*From 2009*
**MUD vs. Cities**

**MUD Facilities**
- Water Plants
- Wastewater Treatment Plants and Lift Stations
- Generators and Fuel Storage
- Storm Sewer Systems
  - Detention/Retention Ponds
  - Inlets/Pipes/Outlets/Culverts
  - Drainage Swales/Channels
  - Pumps
  - Permanent Structural Controls

**City Facilities**
- Streets and ROW
- Parks and Natural Areas
- Maintenance Yards
- Stockpile Areas
- Fleet and Washing Facilities
- Water Plants
- Wastewater Treatment Plants and Lift Stations
- Generators and Fuel Storage
- Storm Sewer Systems
Common Best Management Practices

• Public Education Campaign
  • Utility bill inserts
  • Storm drain marking
  • Recycling program
• Legal Mechanism to Enforce Regulations
  • City Ordinance vs. MUD Rate Order
• Construction Inspections
• Good Housekeeping Practices
  • Street sweeping
  • Spill response kits
  • Operations and maintenance inspections
  • Training
Public Education, Outreach & Involvement

- Utility bill inserts (can change focus annually)
- Storm drain marking by volunteers
- Recycling program
- Utilize website, if available
- Team up with HOAs/community organizations
- Partner with large organizations for environmental events
Legal Mechanism for Regulations

City Ordinance vs. MUD Rate Order

ARTICLE V - REGULATION OF DISCHARGES TO THE MUNICIPAL SEPARATE STORM SEWER SYSTEM
DIVISION - GENERAL
Sec. 30-021 - Purpose
The purpose of this article is to provide for the health, safety, and general welfare of the citizens of the City through the regulation of discharges to the municipal separate storm sewer system. It is required by federal and state law. This article establishes methods for controlling the discharge of pollutants into the municipal separate storm sewer system in order to comply with requirements of the Federal Clean Water Act, the National Pollutant Discharge Elimination System, and other local, state, and federal laws and regulations.

(1) To regulate the discharge of pollutants to the municipal separate storm sewer system by any discharge
(2) To prohibit that connections and discharges to the municipal separate storm sewer system
(3) To establish legal authority to carry out all inspection, surveillance, and monitoring procedures necessary to ensure compliance with this article.


Sec. 30-022 - Applicability
This article shall apply to all discharges entering the municipal separate storm sewer system.


Sec. 30-023 - Responsibility for administration
The administrator shall administer, implement, and enforce the provisions of this article.


Sec. 30-024 - Standards
This ordinance sets forth basic and prerequisite provisions and the standards which shall be met for all discharges. These standards are minimum standards and shall not be interpreted as precluding any additional standards.


Sec. 30-025 - Definitions
In this article, the following terms shall be defined:

- "Administrative" means the employee of the city designated by the city manager.
- "Department" means the Department of Public Works.
- "Discharge" means the introduction of pollutants into a waterway to prevent or reduce the discharge of pollutants. SSDI include treatment requirements and operating

JONES CARTER
Construction Inspections for MUDs

- Review SWP3 sheets
  - Complete SWP3 checklist
- Schedule on-site initial and final inspections
- Schedule on-site monthly homebuilder inspections
  - Submit report with photos of deficiencies to DE
  - The MUD may assess a violation
Good Housekeeping Practices

Street Sweeping

• MUDs will usually contract the work to a 3rd party
• Smaller cities may have street sweeper (if budget allows)
• Performed during non-peak times
  • Before or after events/parades
• Document the amount of miles that were swept (information is given in AR)
Good Housekeeping Practices

Operation and Maintenance Activities

• Maintain a spill response kit at all major facilities
  • Ensure District/City employees know how to use it
• Developed a Spill Prevention & Emergency Response Plan
  • Dictates the steps to take in case a minor, moderate, or severe spill occurs
  • Provides contact information to be notified
  • List closest ER or urgent care
  • Gives 3rd party information in case the spill cannot be contained by District/City employees
Good Housekeeping Practices

Operation and Maintenance Inspections

• Inspections & Assessments on Facilities
• Inventory of Facilities & Storm Water Structural Controls
• Sanitary Sewer System Evaluation
• List of Potential Problem Areas

MUNICIPAL FACILITIES
MS4 SWMP Annual Inspection Form

In following the TMDL General Permit TMDL04000, all permittees shall develop and implement an operation and maintenance program for municipal activities on municipally owned areas. This form shall assist with the implementation of this program.

Location:
Date:
Name of Inspector:

<table>
<thead>
<tr>
<th>VCS</th>
<th>NO</th>
<th>NA</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Standing water in manhole</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Poor maintenance reduces flow of flows</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Storm water adequately drains from the facility</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Soil erosion does/does not occur</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Use of potential pollutants are prohibited or limited as needed</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Structural components of the facilities are in good working condition and not contributing to erosion, erosion control, etc.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Standing water in manhole</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Poor maintenance reduces flow of flows</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Storm water adequately drains from the facility</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Soil erosion does/does not occur</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Use of potential pollutants are prohibited or limited as needed</td>
</tr>
</tbody>
</table>

PAN-001
002-004
Good Housekeeping Practices

Training Program

• Train and inform personnel
  • District Operator
  • JC field project representative
  • JC District Engineer
  • Appropriate city staff
• In Person or Via Webinar
  • Webinar may be recorded for future viewing
Roles and Responsibilities

- **Jones|Carter Program Administrator**
  - Oversees Program
  - Day to day tasks
  - Technical Resource (QC/QA)
  - Compliance with SWMP
  - Develop Annual Report

- **MUD Board of Directors/City Council**
  - Assist with Program Administration
  - Assess Rules/Restrictions/Violations and Fines
  - Signatory Requirements
  - Overall permit responsibility
  - Fiscal responsibility

- **MUD District Operator/City Employees Program Operator**
  - Daily Program Administration
  - Routine Field Inspections
  - Implement O&M BMPs
  - Perform Inspections
  - Respond to Complaints
  - Address Illicit Discharges
QUESTIONS????

Michael P. Gurka, P.E.
MGurka@jonescarter.com
713-777-5337