



5.0 MCM3: Illicit Discharge Detection and Elimination

5.1 Overview

The illicit discharge detection and elimination (IDDE) MCM is intended to detect and eliminate discharges to the MS4 system that are not entirely composed of stormwater. As identified in the Phase II TPDES permit, MS4 permittees are required to develop a strategy to detect and eliminate illicit discharges to the storm drain system. The EPA has defined an illicit discharge as “any discharge into a separate storm sewer system that is not composed entirely of stormwater.”

5.2 Allowable Non-Stormwater Discharges

The following non-stormwater sources may be discharged from the small MS4 and are not required to be addressed in the small MS4’s Illicit Discharge and Detection or other minimum control measures, unless they are determined by the permittee or the TCEQ to be significant contributors of pollutants to the small MS4:

- Water line flushing
- Runoff or return flow from landscape irrigation, lawn irrigation, and other irrigation utilizing potable water, groundwater, or surface water sources
- Discharges from potable water sources that do not violate Texas surface water quality standards
- Diverted stream flows
- Rising ground waters and springs
- Uncontaminated ground water infiltration
- Uncontaminated pumped ground water
- Foundation and footing drains
- Air conditioning condensation
- Water from crawl space pumps
- Individual residential vehicle washing
- Flows from wetlands and riparian habitats
- Dechlorinated swimming pool discharges that do not violate Texas surface water quality standards
- Street wash water
- Discharges or flows from fire-fighting activities (fire-fighting activities do not include washing of trucks, run-off water from training activities, test water from fire suppression systems, and similar activities)

- Other allowable non-stormwater discharges listed in 40 CFR 122.26(d)(2)(iv)(b)(1)
- Non-stormwater discharges that are specifically listed in the TPDES multi sector general permit (MSGP) TXR050000 or the TPDES construction general permit (CGP) TXR150000
- Discharges that are authorized by a TPDES or NPDES permit or that are not required to be permitted
- Other similar occasional incidental non-stormwater discharges, unless the TCEQ develops permits or regulations addressing these discharges

The City of Sugar Land has not identified any of these discharges as significant contributors of pollution to the City's MS4. Therefore, these discharges will not be specifically addressed in the City's SWMP. However, in order to manage the release of potential pollutants from these discharges, the City will review current policies and procedures to minimize water quality impacts throughout the community. If in the future the above-referenced discharges prove to be a significant contributor of pollution to the MS4, the SWMP will be revised to include BMPs for those discharges.

5.3 TPDES Phase II Permit Requirements

The City of Sugar Land currently implements a variety of illicit discharge detection programs to identify sources of stormwater pollution throughout the community. A summary of the BMPs is also provided in Table 5-1.

5.3.1 Maintain a Current and Accurate MS4 Map

Maintain a current and accurate MS4 Map should be as described in Part IV.D.3.(c)(1).

Measurable Goals

- Review and update, as necessary, at least one time annually to include features which have been added, removed, or changed.

Evaluation

- Document captured data from infrastructure and GIS records.
- Update maps and report the percentages of new infrastructure construction and mapping completed

5.3.2 Conduct Training for All Permittee's Field Staff

Conduct training for all the permittee's field staff as described in Part IV.D.3.(c)(2). Training may be conducted in person or using self-paced training materials such as videos or reading materials.

Measurable Goals

- Conduct a minimum of one training annually for 100% of MS4 field staff that may come into contact with or otherwise observe an illicit discharge, illegal dumping, or illicit connection to the small MS4 as part of their normal job responsibilities.

Evaluation

- Document the number of training classes provided on illicit discharges and names and number of staff participation.

5.3.3 Maintain and Publicize a Public Reporting Method for the Public

Maintain and publicize a public reporting method for the public to report illicit discharges, illegal dumping, or water quality impacts associated with discharges into or from the small MS4 such as a reporting hotline, online form, or other similar mechanism as described in Part IV.D.3.(c)(3).

Measurable Goals

- Maintain a minimum of one public reporting mechanism 100% of the time during the permit term.
- Publicize the public reporting mechanism a minimum of two times annually in a method designed to reach the majority of the intended audience. Develop and implement a tracking system to estimate what percentage of the intended audience is reached for determining BMP effectiveness.
- In addition, if the MS4 operator has a public website, the public reporting mechanism must be published on the public website 100% of the time during the permit term.

Evaluation

- Annually maintain on-line reporting mechanism and number of reports lodged.
- Evaluate and monitor tracking system.

5.3.4 Develop and Maintain Procedures for Responding

Develop and maintain procedures for responding to illicit discharges, illegal dumping, and spills as described in Part IV.D.3.(c)(4).

Measurable Goals

- Review and update the procedures at least one time annually to address changes and make improvements to the established procedures where applicable.

Evaluation

- Document annual evaluation of procedures of IDDE

5.3.5 Source Investigation and Elimination of Illicit Discharges

Source investigation and elimination of illicit discharges and illegal dumping as described in Part IV.D.3.(c)(5).

Measurable Goals

- Respond to 100% of known illicit discharges and illegal dumping incidents each year to investigate sources (or some Level 2b MS4s must notify the appropriate agency with the authority to act).

- Respond to 100% of high priority discharges each year, such as sanitary sewer discharges within 24 hours (or some Level 2b MS4s must notify the appropriate agency with the authority to act).
- For 100% of the known illicit discharges or illegal dumping incidents where the small MS4 does not have jurisdiction, notify the adjacent MS4 operator or the applicable TCEQ regional office each year.
- Notify TCEQ immediately of 100% of illicit flows believed to be an immediate threat to human health or the environment throughout the permit term.

Evaluation

- Compare number of known illicit discharges and illegal dumping to number of annual investigations.
- Compare time and date to all investigations conducted to time of notification.
- Annually work with neighboring communities and TCEQ and document.
- Record all notifications to TCEQ.

5.3.6 Corrective Action to Eliminate Illicit Discharges and Illegal Dumping

Corrective action to eliminate illicit discharges and illegal dumping as described in Part IV.D.3.(c)(5).

Measurable Goals

- For 100% of illicit discharges or illegal dumping where a source has been determined, notify the responsible party of the problem within 24 hours.
- Require the responsible party to perform all necessary corrective actions to eliminate the illicit discharge.

Evaluation

- Document all resolutions.
- Review before closing out.

5.3.7 Inspection Procedures

Inspection Procedures as described in Part IV.D.3.(c)(6).

Measurable Goals

- Review and update the procedures at least one time annually to address changes and make improvements to the established procedures where applicable.

Evaluation

- Annually document the review of inspection procedures.

5.3.8 Conduct Follow-Up Investigations or Field Screenings

Conduct follow-up investigations or field screenings when notified that a discharge has been eliminated

Measurable Goals

- Conduct follow-up investigations or field screening in response to 100% of notifications each year.
- Complete the follow-up investigations within five business days, on average.

Evaluation

- Conduct inspections on 100% on follow up inspections and necessary field screenings that warrant a follow up annually.
- Review follow up inspection dates to notification/field screening dates for compliance.

5.3.9 Identification of Priority Areas

Identification of priority areas as described in Part IV.D.3.(e)(1).

Measurable Goals

- Develop and maintain a list of 100% of the priority areas identified by the small MS4 operator each year. At a minimum, small MS4 operators must consider the following in developing the priority areas:
 - Sanitary sewer lines
 - Industrial areas
 - Commercial areas
 - Areas with history of past illicit discharges or illegal dumping
- Review and update the list at least one time annually to include new, removed, or changed areas based on the criteria established by the small MS4 for identifying priority areas.

Evaluation:

- Develop list of priority areas.
- Maintain and update priority area list annually.

5.3.10 Dry Weather Field Screening

Dry weather field screening as described in Part IV.D.3.(e)(2).

Measurable Goals

- Develop and implement written procedures to determine which dry weather flows will be screened, based on results of field observations or complaint from the public or the permittee's trained field staff.
- Review and update the procedures at least one time annually to address changes and make improvements to the established procedures where applicable.
- Develop and implement written procedures for observing flows from outfalls when there has been at least 72 hours of dry weather.

- Review and update the procedures at least one time annually to address changes and make improvements to the established procedures where applicable.

Evaluation

- Develop/update field screening procedures.
- Conduct annual reviews.
- Document annual reviews and maintain records of the reviews.

5.3.11 Floatable Reduction

Floatable reduction as described in Part VI.D.3.(e)(3).

Measurable Goals

- Develop and implement at least two source controls each year to address floatables such as, but not limited to, establishing and maintaining waste collection sites, clean-up events, and anti-littering campaigns.
- Develop and implement at least two structural controls each year such as, but not limited to, inlet protections, boom sites, hazardous materials traps, trash racks, outfall netting, and catch basins.
- Annually maintain at least two locations where floatable material can be removed before the stormwater is discharged to or from the small MS4. These locations may be the same as the areas where source controls and structural controls are implemented.
- Floatable material shall be collected at the frequency necessary for maintenance of the removal devices, but not less than two times per year.

Evaluation

- Document the implementation and maintenance of the source controls.
- Document the implementation of the structural controls.
- Document annual maintenance.
- Document the number of floatables collections for each site annually.

5.3.12 Inspections in Response to Complaints

Inspections in response to complaints as described in Part IV.D.3.(c)(6).

Measurable Goals

- Conduct inspections in response to 100% of complaints each year according to the established procedures.
- Conduct follow up inspections in 100% of cases each year where necessary as described in the established procedures.

Evaluation

- Conduct inspections on 100% of complaints; compare number of inspections against the number of notifications/complaints submitted to the City.

Table 5-1. MCM3 - Illicit Discharge Detection and Elimination

Best Management Practice	Measurable Goals	Permit Years					Key Departments/Divisions	Evaluation	Tracking Tool
		1	2	3	4	5			
Maintain a current and accurate MS4 map as described in Part IV.D.3.(c)(1).	Review and update, as necessary, at least one time annually to include features which have been added, removed, or changed.						Public Works/GIS	Document captured data from infrastructure; report the percentages of new infrastructure construction and mapping completed	Annually
Conduct training for all the permittee's field staff as described in Part IV.D.3.(c)(2). Training may be conducted in person or using self-paced training materials such as videos or reading materials.	Conduct a minimum of one training annually for 100% of MS4 field staff that may come into contact with or otherwise observe an illicit discharge, illegal dumping, or illicit connection to the small MS4 as part of their normal job responsibilities.						Public Works	Document the number of training classes provided on illicit discharges and names and number of staff participation	Annually
Maintain and publicize a public reporting method for the public to report illicit discharges, illegal dumping, or water quality impacts associated with discharges into or from the small MS4 such as a reporting hotline, online form, or other similar mechanism as described in Part IV.D.3.(c)(3).	Maintain a minimum of one public reporting mechanism 100% of the time during the permit term. Publicize the public reporting mechanism a minimum of two times annually in a method designed to reach the majority of the intended audience. Develop and implement a tracking system to estimate what percentage of the intended audience is reached for determining BMP effectiveness. In addition, if the MS4 operator has a public website, the public reporting mechanism must be publicized on the public website 100% of the time during the permit term.						Public Works/Communications	Annually maintain on-line reporting mechanism and number of reports lodged	Annually
Develop and maintain procedures for responding to illicit discharges, illegal dumping, and spills as described in Part IV.D.3.(c)(4).	Review and update the procedures at least one time annually to address changes and make improvements to the established procedures where applicable.						Public Works	Document annual evaluation of procedures of IDDE	Annually

Best Management Practice	Measurable Goals	Permit Years					Key Departments/Divisions	Evaluation	Tracking Tool
		1	2	3	4	5			
Source investigation and elimination of illicit discharges and illegal dumping as described in Part IV.D.3.(c)(5).	Respond to 100% of known illicit discharges and illegal dumping incidents each year to investigate sources (or some Level 2b MS4s must notify the appropriate agency with the authority to act).						Public Works	Compare number of known illicit discharges and illegal dumping to number of annual investigations	Annually
	Respond to 100% of high priority discharges each year, such as sanitary sewer discharges within 24 hours (or some Level 2b MS4s must notify the appropriate agency with the authority to act).						Public Works	Compare time and date to all investigations conducted to time of notification	Annually
	For 100% of known illicit discharges or illegal dumping incidents where the small MS4 does not have jurisdiction, notify the adjacent MS4 operator or the applicable TCEQ regional office each year.						Public Works	Annually work with neighboring communities and TCEQ, document	Annually
Corrective action to eliminate illicit discharges and illegal dumping as described in Part IV.D.3.(c)(5).	Notify TCEQ immediately of 100% of illicit flows believed to be an immediate threat to human health or the environment throughout the permit term.						Public Works	Record all notifications to TCEQ	Annually
	For 100% of illicit discharges or illegal dumping where a source has been determined, notify the responsible party of the problem within 24 hours.						Public Works	Document all resolutions. Review before closing out.	Annually
Inspection Procedures as described in Part IV.D.3.(c)(6).	Require the responsible party to perform all necessary corrective actions to eliminate the illicit discharge.						Public Works	Document all resolutions. Review before closing out.	Annually
	Review and update the procedures at least one time annually to address changes and make improvements to the established procedures where applicable.						Public Works	Annually document the review of inspection procedures	Annually

Best Management Practice	Measurable Goals	Permit Years					Key Departments/Divisions	Evaluation	Tracking Tool
		1	2	3	4	5			
Inspections in response to complaints as described in Part IV.D.3.(c)(6).	Conduct inspections in response to 100% of complaints each year according to the established procedures (or some Level 2b MS4s must notify the appropriate agency with the authority to act).						Public Works	Conduct inspections of 100% of complaints, compare number of inspections to City notifications	Annually
	Conduct follow up inspections in 100% of cases each year where necessary as described in the established procedures (except for some Level 2b MS4s without the appropriate authority to act).						Public Works	Conduct inspections on 100% of complaints, compare number of inspections to City notifications	Annually
Conduct follow-up investigations or field screenings when notified that a discharge has been eliminated.	Conduct follow-up investigations or field screening in response to 100% of notifications each year.						Public Works	Conduct inspections on 100% on follow up inspections and necessary field screenings annually	Annually
	Complete the follow-up investigations within five business days, on average.						Public Works	Review inspection dates to notification dates	Annually
Identification of priority areas as described in Part IV.D.3.(e)(1).	Develop and maintain a list of 100% of the priority areas identified by the small MS4 operator each year. At a minimum, small MS4 operators must consider the following in developing the priority areas:						Public Works	Document list of priority areas and maintain	Annually
	<ul style="list-style-type: none"> ▪ Sanitary sewer lines ▪ Industrial areas ▪ Commercial areas ▪ Areas with history of past illicit discharges or illegal dumping 						Public Works	Document the review of update of list	Annually

Best Management Practice	Measurable Goals	Permit Years					Key Departments/Divisions	Evaluation	Tracking Tool
		1	2	3	4	5			
Dry weather field screening as described in Part IV.D.3.(e)(2).	Develop and implement written procedures to determine which dry weather flows will be screened, based on results of field observations or complaint from the public or the permittee's trained field staff.						Public Works	Develop document	Annually
	Review and update the procedures at least one time annually to address changes and make improvements to the established procedures where applicable.						Public Works	Document annual review	Annually
	Develop and implement written procedures for observing flows from outfalls when there has been at least 72 hours of dry weather.						Public Works	Document annual review	Once during the permit term
	Review and update the procedures at least one time annually to address changes and make improvements to the established procedures where applicable.						Public Works	Document annual review	Annually
	Develop and implement at least two source controls each year to address floatables such as, but not limited to, establishing and maintaining waste collection sites, clean-up events, and anti-littering campaigns.						Public Works	Document the implementation and maintenance of the source controls	Annually
Floatable Reduction as described in Part IV.I.D.3.(e)(3).	Develop and implement at least two structural controls each year such as, but not limited to, inlet protections, boom sites, hazardous materials traps, trash racks, outfall netting, and catch basins.						Public Works	Document the implementation of the structural controls	Annually

Best Management Practice	Measurable Goals	Permit Years					Key Departments/Divisions	Evaluation	Tracking Tool
		1	2	3	4	5			
	<p>Annually maintain at least two locations where floatable material can be removed before the stormwater is discharged to or from the small MS4. These locations may be the same as the areas where source controls and structural controls are implemented.</p> <p>Floatable material shall be collected at frequency necessary for maintenance of the removal devices, but not less than two times per year.</p>						Public Works	Document annual maintenance	Annually
							Public Works	Document the number of floatables collections for each site annually	Annually