MS4 Self-Assessment

Illicit Discharge Detection and Elimination Program

Module 2

Name of the Permittee: City of San Antonio, San Antonio Water System, Texas Department of Transportation	MS4 Permit Number: WQ0004284000 / EPA ID TXS001901
Assessment Period: 2014	

Permittee Instructions: Please complete the worksheet below. Please note that upon opening this Module, some content may be disabled such as the capacity to check inside the "boxes." The content can usually be activated by pressing "Enable Content" which will appear below the Toolbar in "MS Office."

ATTACHMENTS REQUESTED	Document attached
1. Attach a blank checklist or form used to investigate and document findings, investigations and resolutions of illicit discharges.	☑ YES ☐ NO
2. Attach five recent inspection or investigative reports of illicit discharges and include the resolution.	☑ YES ☐ NO
3. Attach five completed inspection reports for outfalls that had a flow path.	☑ YES ☐ NO
4. Attach a current photo of each of these five outfalls.	☐ YES ☑ NO
5. Attach an organizational chart.	☑ YES ☐ NO
6. Attach a flow chart that illustrates how the enforcement plan is implemented.	☑ YES ☐ NO

ILLICT DISCHARGE DETECTION AND ELIMINATION

Control Measure to detect and remove illicit discharges into the storm sewer by prohibiting these discharges, field screening outfalls, investigating potential illicit discharges, controlling the infiltration of sanitary sewage into the storm sewer, and developing programs for spill response and prevention, public awareness and reporting, and used oil and toxics disposal.

1. In accordance with 40 CFR §122.26 [Phase I] and 40 CFR § 122.34(a) and 40 CFR § 122.34(b)(3) [Phase II], has the permittee developed a *Storm Water Management Program (SWMP),* that describes how the **Illicit Discharge Detection and Elimination** Control Measure will be implemented?	☑ YES ☐ NO
2. What pollutants of concern are targeted for reduction through the **Illicit Discharge Detection and Elimination** program?	
Response: E.coli bacteria	
ORGANIZATIONAL STRUCTURE	
1. Is there a storm water team in place to ensure that the **Illicit Discharge Detection and Elimination** program is properly implemented?	☑ YES ☐ NO
2. Describe the organizational structure and staff responsibilities necessary to implement the **Illicit Discharge Detection and Elimination** program. Include the name, title, contact information, department name and key responsibilities of each team member.	

Response: There are 2.16 FTE positions budgeted for this program. (Environmental Specialist 2 & 3 and Industrial Compliance Supervisor). The program includes a rotation of EPS3 and EPS2 positions under Martin Miller's Supervision, 210.233.3557 martin.miller@saws.org SAWS RPC Dept.
3. Which co-permittee(s) and/or interagency departments will participate in the implementation of the **Illicit Discharge Detection and Elimination** program?
Response: SAWS RPC performs the program requirements. City and TxDOT staff may also respond to the initial investigation or may report items of concern to SAWS for investigation depending on nature of issue.
4. Describe any formal agreements and key areas of responsibility shared by the permittee, co-permittee(s) and or interagency departments in the implementation of the **Illicit Discharge Detection and Elimination** program.
Response: Interlocal agreement between COSA and SAWS.

5. Do program participants *(e.g., permittee, co-permittee(s), and other departments)* meet regularly to discuss the progress of the **Illicit Discharge Detection and Elimination** program?	☑ YES ☐ NO

6. Describe the frequency of these meetings.
Response: An annual budget meeting is held with the COSA and SAWS to discuss budget, positions and the overall program. There are other meetings held to discuss items as needed. Things such as changes to the SWMP, responsibilities, permit changes, annual reports and individual issues may cause additional meetings to coordinate as needed. Telephone and emails are frequent to report items of concern or to coordinate response.
LEGAL AUTHORITY

1. Does the permittee have legal authority to implement the **Illicit Discharge Detection and Elimination** program?	☑ YES ☐ NO

2. What ordinances, codes, or policies provide this legal authority?
Response: Chapter 34, Article VI, Division 5, Subdivision A, Sections 34-702 to 707
3. Who *(e.g., specific staff, department, etc.)* has the authority to enforce the ordinances?
Response: SAWS – RPC, COSA – Code Compliance, SA Metro Health Dept. and DSD Plumbing Dept.
FISCAL RESOURCES

1. What is the budget for the implementation of the **Illicit Discharge Detection and Elimination** program?	**REPORTING PERIOD**	**NEXT REPORTING PERIOD**
	Response: The IDDE program is not budgeted separately. It is included in the Construction Site Inspection Budget.	**Response: The IDDE program is not budgeted separately. See the Construction Site Inspection section in Module 1.**

SECTION I: MEASURABLE GOALS
1. What are the Measurable Goals for the **Illicit Discharge Detection and Elimination** program? Include expected quantifiable results.

Measurable Goal 1	**Inspect 425 major outfalls from the MS4 to local creeks during 5 year permit.**

Expected Quantifiable Results	**Eliminate any illicit discharges discovered.**
Measurable Goal 2	**Inspect open channels of the MS4.**
Expected Quantifiable Results	**Eliminate any illicit discharges discovered. Report any infrastructure issues to the proper department for repair.**
Measurable Goal 3	**Collect information for annual report**
Expected Quantifiable Results	**Entry into database summarizing areas covered and issued identified.**
Measurable Goal 4	**Respond to any complaint including any reported SSO from the sewer collection system.**
Expected Quantifiable Results	**Identify quantity and environmental impact of spill, coordinate cleanup.**
2. Are these Measurable Goals described in the SWMP?	☐ YES ☑ NO

SECTION II: TRAINING/EDUCATION

STAFF

1. Does the permittee require staff *(e.g., storm water team, inspectors and engineers)* to complete special, continuous, and or annual training or obtain certification or licensing to implement and manage the **Illicit Discharge Detection and Elimination** program?	☑ YES ☐ NO

2. If yes, describe the applicable training, certification or licensing and the required frequency for each.

Response: The EPS 2 & 3 positions require levels of training for Storm Water; most of the EPS3 staff has obtained a REM or is in process. In addition they maintain a TCEQ license for Collection Systems or Wastewater Operations. Training is also done in house at weekly staff meetings. Follow up meetings are done on a monthly basis to cover any major spills from sanitary sewer collection system.

INSPECTORS

1. Are staff and inspectors trained to detect and investigate illicit discharges?	☑ YES ☐ NO
2. Is there a system in place to notify staff and inspectors when required training is due, and does the permittee document the training completion dates?	☑ YES ☐ NO
3. Does the permittee have written procedures in place for staff and inspectors to train on how to trace and locate, investigate and resolve illicit discharges?	☑ YES ☐ NO

GENERAL PUBLIC

1. Does the permittee provide training and or educational materials to educate the public on how to detect and report illicit discharges? Elaborate below on the type of training and or educational materials that are provided to the public.	☑ YES ☐ NO

Response: The COSA web site includes this information.

2. Describe means the permittee has in place to collect oil, hazardous waste and recycling materials from the public.

Response: The COSA has a Household Hazardous Waste Collection Center and a website that takes this material. SAWS only collects this waste from its internal fleet and water and wastewater operations.

3. What communication tools such as a web page or telephone hotline are provided to engage the public in reporting illicit discharges?

Response: SAWS RPC web site and the COSA "Remembertheriver.com" site and 311 System

INDUSTRIAL OPERATORS

1. Does the permittee provide training and educational materials to industrial operators about eliminating and or reducing pollutants associated with industrial activity, in storm water? Elaborate below on the type of training and or educational materials that are provided to industrial operators.	☐ YES ☑ NO
Response: SAWS provides "one on one" contact with Industries to inspect the facilities for MSGP compliance. During the course of the interview and inspection information is exchanged with the facility. The COSA has a web site that contains a section on BMPs for industry. SAWS has a web site detailing requirements under the MSGP. They both also contain resources and downloadable information, as well as links into TCEQ and EPA sites.	

SECTION III: INVENTORY

1. Has the permittee identified its universe of industrial dischargers and their pollutants?		☑ YES ☐ NO
2. What mapping process has the permittee developed to identify areas where illicit discharges could occur?	**Storm Drain Pipes**	☑ YES ☐ NO
	Outfalls	☑ YES ☐ NO
	Inlets	☑ YES ☐ NO
	Municipal facilities	☐ YES ☐ NO
	Storm Drain Outlets	☑ YES ☐ NO
	Catch basins	☑ YES ☐ NO
	Pipes, ditches and other conduits	☑ YES ☐ NO
	Surface waters (rivers, lakes, tributaries)	☑ YES ☐ NO
	Ground water	☐ YES ☐ NO
	Impaired waters 303(d) list	☑ YES ☐ NO
	Structural Controls	☑ YES ☐ NO
	All Receiving Waters	☑ YES ☐ NO
	Other, Specify:	☐ YES ☐ NO
	New outfalls	☐ YES ☐ NO
3. Does the permittee update these maps? If yes, describe the frequency of the updates.		☐ YES ☐ NO
Response: COSA is working to update their GIS system to reflect the current inventory. SAWS has access to the current map layer in our GIS system. A book has also been produced for field work. The MS4 permit requires identification of the Municipal Separate Storm Sewer System.		
4. Are the maps readily available to storm water staff, co-permittee(s), interagency departments who participate in managing storm water?		☑ YES ☐ NO
5. How many alleged illicit discharges were reported this year by the public?		
Response: There were 312 complaint investigations total in 2014. Not all of them were reported by the public. Some originated from SAWS and COSA personnel.		

SECTION IV: EQUIPMENT

1. What fundamental and special hardware *(e.g., vehicles, laptops, special metric instruments)* do inspectors use in the field to detect illicit discharges?

Response: 4x4 trucks, UTVs with trailers, spill equipment, meters, test kits, laptop, gps	
2. Does the permittee provide its storm water staff and inspectors access to the necessary resources (*e.g., up-to-date technology in computer software and hardware, safety equipment, maintained equipment and vehicles*) to effectively inspect and address illicit discharges and or clean up minor spills? Elaborate below as needed.	☑ YES ☐ NO
Response: Staff has access to a GIS layer showing the MS4 system. In addition there is a hard copy of the outfall locations that is used for their inspection. Data is kept in a dedicated database including outfall pictures. Spill pads, containment booms and containers are kept in storage for small clean ups. Large spills may be referred to the COSA or TxDOT for assistance and resources.	
SECTION V: INSPECTIONS	
1. Does the permittee, have a plan in place to routinely *(e.g., weekly, bi-weekly, quarterly, monthly)* inspect for illicit discharges? Describe the frequency of the search.	☑ YES ☐ NO
Response: Staff has a listing of all of the outfalls, maps of the open channels and the MS4 permit requires a survey of the MS4 once per 5 year permit cycle. Outfalls are usually inspected at least every other year. Individual complaints are investigated as they are reported.	
2. How many fulltime inspectors are dedicated to inspecting and investigating illicit discharges? Also, describe the extent to which other departments may be involved in conducting these inspections.	
Response: Staff is on a rotational basis for spill response. One FTE EPS3 position conducts inspections of the outfalls. Other staff maybe assigned to investigate complaints within their industrial inspection area.	
3. Does the permittee have written procedures in place for staff and inspectors to train on how to trace and locate, investigate and resolve illicit discharges?	☑ YES ☐ NO
4. Do inspectors use a reporting form or checklist to document illicit discharge findings, investigations and resolutions?	☑ YES ☐ NO
5. Has the permittee identified and prioritized types of areas, such as the types of areas listed below, to inspect for illicit discharges *(Check all that apply)*:	
a. Areas with aging infrastructure that are more likely to have illicit connections;	☐ YES ☐ NO
b. Industrial, commercial, or mixed use areas;	☑ YES ☐ NO
c. Areas with a history of past illicit discharges;	☑ YES ☐ NO
d. Areas with a history of illegal dumping;	☐ YES ☐ NO
e. Areas with onsite sewage disposal systems;	☐ YES ☑ NO
f. Areas with aging sewer lines or with a history of sewer overflows or cross connections;	☑ YES ☐ NO
g. Areas that are upstream from surface waters; and,	☐ YES ☐ NO
h. Storm drain outlets	☐ YES ☐ NO
h. Other, *(Specify)*:	☐ YES ☐ NO
6. How often does the permittee review and update this priority list to reflect changes?	
Response: Follow-up activities are prioritized on the basis of magnitude of the spill event. A particular location is dealt with until it is cleaned up satisfactorily. A site with recent SSO activity is looked at	

more frequently.	
7. How many prioritized areas are targeted for inspection each year?	
Response: When an SSO occurs the area immediately upstream and downstream is inspected to check infrastructure and see if there are damaged manholes or other causation factors. If a spill from an industrial or commercial facility occurs then this area is checked throughout the remediation process and during annual inspections.	
8. How many prioritized areas were inspected this reporting year?	
Response: 213 SSO locations were prioritized.	
SECTION VI: INVESTIGATIONS	
1. Describe the total number of illicit discharges reported by the public and those located through routine and scheduled inspections.	☑ YES ☐ NO
2. Does the permittee investigate all illicit discharges?	☑ YES ☐ NO
3. How does the permittee track illicit discharge inspections and investigations? Describe the type of information tracked *(e.g., location, type of discharge, clean-up, etc.)*?	
Response: See attached pages out of the Complaint database.	
SECTION VII: OUTFALLS	
1. How many outfalls exist within the permittee's jurisdiction?	
Response: 425 outfalls 24" in diameter and larger	
2. Are outfalls screened for illicit discharges?	☑ YES ☐ NO
3. How many outfalls are screened?	
Response: All outfalls are screened at least once during each permit cycle, with a goal to do 30% of them every year.	
4. Does the permittee have a field screening program in place to sample these outfalls?	☑ YES ☐ NO
SECTION VIII: FIELD SCREENING	
1. Does the permittee prioritize areas for field screening that are located within its jurisdiction?	☑ YES ☐ NO
2. Describe the conditions of areas prioritized for Field Screening *(e.g., are these areas based on incidents of illicit discharges, land use, dumping reports or something else).*	
Response: Those areas associated with more frequent SSOs are targeted for inspection on a more frequent basis. Areas in industrial parks and commercial areas are prioritized.	
3. Describe how the permittee schedules and prioritizes areas for field screening.	
Response: Areas are divided up along stream segments. An area is targeted and a UTV is used to follow the streambed visiting each of the outfalls in that segment. The stream is traveled to look for other issues (e.g. infrastructure failure) in addition to the outfall testing.	
4. What types of field screening *(e.g., dry, wet weather screening)* are conducted?	
Response: The majority of the screening is done in dry weather looking for water that should not be at the location. There are sample events done in wet weather looking at background levels. This is reflected in the Monitoring module.	
5. Does the permittee conduct dry weather screening? Describe the frequency.	☑ YES ☐ NO
Response: All outfalls are screened at least once during each permit cycle, with a goal to do 30% of	

them every year.	
6. If dry weather flows are present, are they sampled to determine potential sources of pollutants? If yes, identify the parameters that are sampled.	
Response: An ammonia test is done in the field. Other tests can be done for chlorine, copper and surfactants if needed. We also collect Bacteria samples if the other testing is not definitive in identifying the type of discharge.	
7. Does the permittee conduct wet weather screening? Describe the frequency.	☑ YES ☐ NO
Response: Wet weather screening is weather dependent. There are locations that are sampled quarterly throughout the year as it rains.	
SECTION IX: ENFORCEMENT	
1. Is an enforcement policy in place that clearly describes the action *(e.g., verbal and written warnings, fines)* to be taken against the responsible party?	‼ **CONTROL Forms.CheckBox.1 \s**
Response: Typically in addition to the on-site visit with the responsible party the staff notifies them of their responsibility for cleanup in person and then follows up either a Corrective Action Required (CAR) letter or a Notice of Violation letter as appropriate. The CAR request a root cause analysis and a remediation plan to be submitted.	
2. What person or office is authorized to initiate enforcement action for illicit discharge violations?	
Response: RPC Staff (Eps3, Supervisor) are authorized to perform an onsite inspection and issue a NOV to the responsible party. Other COSA departments may be contacted to issue a municipal citation (DSD Code Compliance) or to shut the facility down (SAFD, SA Metro Health, DSD Plumbing).	
3. Does the permittee have the capacity to collect cleanup and abatement costs from the responsible party?	☑ YES ☐ NO
4. What enforcement mechanisms are available? — **a. Verbal Warning**	☑ YES ☐ NO
b. Notice of Violations (NOV)	☑ YES ☐ NO
c. Administrative Fine	☐ YES ☑ NO
d. Stop-Work Order	☑ YES ☐ NO
e. Civil Penalty	☐ YES ☑ NO
f. Criminal Penalty	☑ YES ☐ NO
g. Other (Specify):	☐ YES ☐ NO
SECTION X: SPILL RESPONSE AND PREVENTION	
1. Does the permittee have a Spill Prevention and Emergency Response program established to address spills?	☑ YES ☐ NO
2. Who is responsible for carrying out the Spill Prevention and Emergency Response program, if different from the storm water team?	
Response: The City of San Antonio Fire Department has a response team and program to meet this requirement. TxDOT has a program for dealing with spills that are the result of an accident on the State highway. SAWS assists with support for spills as requested by these agencies.	
SECTION XI: SANITARY SEWER OVERFLOWS	

1. Has the permittee identified the location of all the following :	**a. Storm Water drains**	☑ YES ☐ NO
	b. Households using septic tanks	☐ YES ☑ NO
	c. Owners of leaking privately owned sewer lines	☑ YES ☐ NO
	d. Outfalls	☑ YES ☐ NO
	e. Aging municipal infrastructures	☑ YES ☐ NO
2. Does the permittee have a problem with sanitary sewer overflows (SSOs)?		☑ YES ☐ NO
3. Does the permittee have procedures in place to eliminate the reoccurrence overflows and seepages into the MS4 from sanitary sewers? Describe where these procedures are written *(e.g., SWMP, Standard Operations Manual).*		☑ YES ☐ NO
Response: Yes, SAWS is under Consent Decree with the EPA and was required to develop a Capacity, Management, Operation, & Maintenance (CMOM) Program which includes a Sanitary Overflow Response Plan (SORP). The CMOM Plan was submitted to EPA on July 22, 2014. As part of the requirements, all SSO are inspected within 48 hours with CCTV and subsequently evaluated to determine the Root Cause. Weekly meetings address the future management of the asset to prevent future SSOs. **Note: SAWS does not regulate households using septic tanks, they are regulated by Bexar County Public Works.**		
4. Does the permittee have sewer spill clean-up procedures in place?		☑ YES ☐ NO
Response: See attached flow chart for answers to question 4 and also 10.		
5. Does the permittee have procedures in place to verify maintenance of residential septic systems?		☐ YES ☑ NO
Response: No, Bexar County Public Works is responsible for the septic tank program. Bexar County Public Works is not a copermittee, but are members of the Bexar Regional Watershed Management group. Information is shared in the monthly meetings.		
6. How does the permittee determine that an SSO(s) has occurred?		
Response: SAWS crews responding to a customer complaint, Flow Meter, Smart Cover or Lift Station Alarms. In addition, SAWS field staff identifies SSOs during normal operations to include line cleaning, CCTV of sewer lines and the IDDE program.		
7. Describe any communication tools in place *(e.g., telephone hotline, and webpage)* to give the public a way to report sanitary sewer overflows?		
Response: SAWS has a telephone hotline (704-SAWS) for 24 hour Emergency Operations Center (EOC) support to the public and a webpage informing customers how to report/contact SAWS. SAWS manages a SCADA system for all critical equipment, to include Lift Stations, and monitors Smart Covers and Flow Meters throughout the collection system which provides an early warning alarm when the flow increases. SAWS staff has access to additional telephone numbers and an online web site to communicate directly to the EOC. The City of San Antonio has a 311 call center that forwards wastewater related issues to SAWS. The Edwards Aquifer Authority, San Antonio River Authority, Bexar County and local TCEQ office forward pertinent calls and complaints to SAWS. There is also after hour coordination and joint response, depending on the issue and entities involved.		
8. Describe the permittee's response time to stop sanitary sewer overflows.		
Response: Response time starts when SAWS is notified of a possible SSO and once SAWS crew is on-		

site and confirms an SSO the response time stops. Crews work 24/7 to respond to SSOs. Support from On Call RPC staff (EPS and Supervisor) to manage sampling and signage, if warranted. SSOs goal is to respond to all SSOs, on average, within one hour of the notification.	
9. In which months of the year do SSOs usually occur?	
Response: January, February and May are historically our highest SSO average months.	
10. Have any SSOs discharged into the MS4 or municipal waters *(i.e., rivers, lakes, tributaries)*? Describe how these discharges are addressed.	☑ YES ☐ NO
Response: Yes. SAWS follows the response procedures as outlined in the Sewer Overflow Response Plan. The Plan includes procedures for the following: Receipt of Information Regarding a Potential SSO and/or Building/Private Property Back-Up; Emergency Operation Center Dispatch; Site Investigation; Gravity Sewer SSO Response Procedures to include Resources & Site Assessment; Building/Private Property Back-Up Procedures to include Communication with Customers and Clean Up Measures; Lift Station & Force Main SSO Response to include Resources and Site Assessment; SSO Mitigation Measures; Minimize Environmental Impact; SSO Volume and Notice to the Public & Applicable Governing Authorities; Clean-Up Activities; Post-SSO Investigation; and Measures to Minimize the Likelihood of SSO Reoccurrence. EXAMPLE: Crews work to alleviate the SSO by using a combo truck to remove any obstruction in the sanitary sewer line. Staff is works to get the necessary equipment on site to build a containment structure and to pump sewer back into the sanitary sewer collection system. Another group determines the extent of the discharge and makes a determination if containment is possible to isolate the spill from the natural water body. Samples are obtained and signage posted, when applicable. Clean-Up Operations, Mitigation measure and notification is performed.	
11. Are sanitary sewer systems evaluated to determine storm sewer cross-connections or overflow locations?	☑ YES ☐ NO
12. Has the permittee identified the extent of infiltration and inflow into the storm drain system?	☐ YES ☑ NO
13. Are damaged or degraded pipes in municipal infrastructures scheduled for repair or replacement?	☑ YES ☐ NO
SECTION XII: RECORDS MANAGEMENT	
1. Does the permittee have a database in place to track activities of the **Illicit Discharge Detection and Elimination** program?	☑ YES ☐ NO
2. What information *(e.g., inspections, citizen complaints, investigations, and enforcement actions)* is tracked for the **Illicit Discharge Detection and Elimination** program?	
Response: See attached format. FSP inspection, MS4 inspection format, Complaint format pages 1-5	
3. Who has access to this database?	
Response: RPC staff	
4. Who is responsible for updating the database?	
Response: RPC Staff – EPS and Supervisors	
5. Does the permittee update its SWMP to reflect current change and progress made in the **Illicit Discharge Detection and Elimination** program?	☑ YES ☐ NO
SECTION XIII: ASSESSMENT	
1. Does the permittee assess the effectiveness of the **Illicit Discharge Detection and Elimination** program?	☑ YES ☐ NO

2. Based on the results of the effectiveness assessment, describe the positive results of the **Illicit Discharge Detection and Elimination** program.	
Response: Discharges are eliminated as they are found.	
3. Based on the results of the effectiveness assessment, what changes are proposed to enhance the **Illicit Discharge Detection and Elimination** program?	
Response: Additional staff will be brought on board as permit requirements change and increase.	
4. Does the permittee have adequate staff and equipment to implement the **Illicit Discharge Detection and Elimination** program?	☑ YES ☐ NO
5. Does the permittee assess the **Illicit Discharge Detection and Elimination** program to determine if it meets Measurable Goals and other indicators?	☑ YES ☐ NO
6. Does the permittee assess the **Illicit Discharge Detection and Elimination** program's compliance with the permit requirements?	☑ YES ☐ NO
7. Does the permittee generate an assessment report of the **Illicit Discharge Detection and Elimination** program for its records?	☑ YES ☐ NO
8. What departments are involved in the **Illicit Discharge Detection and Elimination** program assessment?	
Response: RPC produces and annual report for the City of San Antonio to include in the TCEQ annual report. The current program meets the MS4 permit requirements. As the permit changes or requires additional programs or increased measures the SWMP will be updated and changed as necessary.	
Completed by (Print Name): Martin Miller	
Signature:	**Date: July 14, 2015** 8/5/15
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