EPA United States Environmental Protection Agency

Region 6 Compliance Assurance and Enforcement Division

INSPECTION REPORT

Inspection Date(s):	06/06/2017		
Media:	Water		
Regulatory Program(s)	CWA 308[A][B]		
Company Name:	**City of Keller**		
Facility Name:	**City of Keller Public Works Department**		
Facility Physical Location:	1100 Bear Creek Parkway		
(city, state, zip code)	Keller, Texas 76244		
Mailing address:	1100 Bear Creek Parkway, P.O. Box 770		
(city, state, zip code)	Keller, Texas 76244		
County/Parish:	Tarrant County		
Facility Contact:	Alonzo Linan	Director	
	alinan@cityofkeller.com		
FRS Number:	110010935621		
Identification/Permit Number:	TXU000059		
Media Number:	NA		
NAICS:	221320		
SIC:	4952		

Personnel participating in inspection:			
David Long	USEPA/6EN-WM	Environmental Scientist	214.665.7323
Mike Tillman	USEPA/6EN-WM	Environmental Scientist	214.665.7531
Larry Jones	City of Keller	Water/Wastewater Supervisor	817.743.4216
Robert Carrales	City of Keller	Water/Wastewater Foreman	817.743.4217

EPA Lead Inspector Signature/Date	David Long	12/04/2017
	{Inspector name}	Date
Supervisor Signature/Date	Pam Phillips Worm	12/5/17
	{Supervisor name}	Date

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

A U.S. Environmental Protection Agency (USEPA) program review inspection was conducted in the City of Keller Public Works offices located at 1100 Bear Creek Parkway, Keller, Texas 76244. The inspection was conducted under the guidelines established by the USEPA under the National Pollutant Discharge Elimination System (NPDES) for wastewater collection systems. The purpose of this inspection was to inspect and review the City of Keller's current Sanitary Sewer Overflow (SSO) response protocols and their application of a Capacity, Management, Operations and Maintenance (CMOM) program and how the program is used to insure proper operation and maintenance of their collection system. An entry briefing was conducted by EPA-Region 6 inspectors David Long and Mike Tillman at 9:00 a.m. on June 6, 2017 at the City of Keller Public Works offices. The inspectors met with Alonzo Linan, Public Works Director, and Larry Jones, Water/Wastewater Superintendent. Additional City of Keller personnel were also present and are listed in Appendix 1. During the entry briefing, the EPA inspectors provided credentials and explained the purpose of the inspection, as well as set the timeline for the day and verified the availability of documents that had been requested the week before. Notification of the inspection had been provided to Lead Inspector Greg Diehl with the Texas Commission on Environmental Quality, but he was not present for any part of the inspection.

At the conclusion of the inspection, an exit briefing was conducted that explained the suggestions and areas of concerns noted during the inspection that are detailed in this report. This report is based on information supplied by the City representatives, observations made by the U.S. EPA inspectors, records and reports maintained by the City, the State of Texas and the USEPA.

FACILITY DESCRIPTION

The City of Keller is approximately 18.4 square miles in size and includes a population of 44,050 residents which are provided wastewater services through approximately 202 miles of sewer lines with seven lift stations. Approximately 92 percent of the collection system is composed of PVC pipe mostly installed since 1975. The remaining system includes approximately six percent vitrified clay and smaller percentages each of ductile iron and polyethylene pipe. A Supervisor Control and Data Acquisition (SCADA) continuously monitors the City's seven lift stations, otherwise, all lift stations are physically visited at least twice per week. While all lift stations are monitored, only two stations have dedicated emergency generators in the event of an electric grid failure. However, the remaining lift stations are all equipped with quick connect lines for electric power supplied by portable generators if needed.

The City of Keller collection system has experienced seven SSOs since 2012. Problem areas of the collection system, where SSOs occur more frequently, are placed on either a 30 or 90-day preventative maintenance schedule and cleaned to reduce overflows. In addition, Keller has performed a Sanitary Sewer Evaluation Study to ensure capacity and condition of the collection system is maintained. The next evaluation has been funded ($200,000) and is expected to commence in late 2017 or early 2018

after a vendor is selected. The City of Keller utilizes a five year cleaning plan and annually cleans approximately 20 percent of their collection system. Of the 20% of the lines cleaned, the City of Keller also performs CCTV examination of approximately 10% of those lines and utilizes a Pipeline Assessment Certification Program (PACP) to assess the condition of the sewer lines. Finally, the City of Keller's budget provides $250,000 per year for their sewer replacement program plus an additional $50,000 per year for emergency repairs.

Due to the relative age of their collection system and the occurrence of few SSOs, the City of Keller has elected to not join the TCEQ Sanitary Sewer Overflow Initiative, but has developed various written protocols to meet the program's needs. These protocols include their CMOM, FOG (Fats, Oil, Grease) Ordinance to address grease waste from restaurants and private properties, and a Sewer Overflow Response Plan (SORP).

Section II - OBSERVATIONS

Following the review of their SSO Program, the EPA inspectors requested site tours of Keller's SCADA (supervisory control and data acquisition) office and lift stations. A review of each of those sites revealed the following observations:

1. SCADA office: Keller operators are present 16 hours per day and seven days a week at the SCADA office control desk. The operators are responsible for the monitoring of the operational status of each lift station and are also responsible for addressing after hour calls that would normally be routed to the Call Center during the day. For collection system and lift station related issues, the SCADA desk operator has seven operators available to respond to emergency repairs, jet washing and vacuuming, as well as an additional crew dedicated to CCTV. The SCADA system will provide notification to the on-call operator should an alarm be tripped at one of their lift stations during the overnight hours.

2. Lift Stations: Lift stations are physically visited at least twice per week and are monitored 24/7 via the city's SCADA system. While only two of the city's seven lift stations have their own backup power source, the City of Keller demonstrated sufficient ability prevent overflows via quick connection points and portable pumps and generators.

Section III – AREAS OF CONCERN

At the conclusion of the inspection, the EPA inspectors met with the representatives from the City of Keller for an exit interview at 12:30 p.m. on June 6, 2017. At that time, the inspectors provided details and feedback to the City representatives regarding any questions they may have noted during the inspection. EPA inspections noted the quality of the SSO program in the City of Keller and noted that no issues were noted in the inspection that might require additional follow-up or correction.

The inspectors exited the site at 1:15 p.m.

Section IV – FOLLOW UP

None required. A copy of the inspection report will be sent to the City of Keller contact, Alonzo Linan, Keller Public Works Director.

Section V – LIST OF APPENDICES

Appendix 1 – City of Keller SSO Inspection Checklist

Appendix 2 - Meeting/Inspection Attendee List

Appendix 3 – City of Keller SSO Report Example

Appendix 1 – City of Keller SSO Inspection Checklist

EPA
SSO Inspection Checklist

Performance Indicators

1. Summarize the Capacity, Management, Operations, and Maintenance (CMOM) components utilized by the facility and satellite systems, if applicable:

   CCTV mainline & lateral inspections, manhole inspections, routine line cleaning, sewer line point repairs, root control. All newly constructed sewer mains, service lines and manholes are CCTV, air/vacuum tested prior to acceptance.

2. Does the utility participate in the TCEQ Sanitary Sewer Overflow Initiative (SSOi)? No
   - If yes, please provide the latest SSOi Annual Report.
   - If no, why not? The decision not to participate was made by previous management, possibly due to insufficient resources and lack of SSO events.

3. What Standard Operational Procedures (SOP) are developed and used?
   - X SCADA?
   - X Routine Inspections/Maintenance?
   - X Root Control?
   - X Lift/Pump Stations?
   - X Valve maintenance?
   - X Fleet Management?
   - X Clean-up?
   - ____ Other?

4. Has an infiltration & inflow (I/I) analyses or sanitary system evaluation survey been performed?

   According to our records, the most recent Sanitary Sewer Evaluation Survey was performed in 1991.

   - If yes, describe (and provide a copy of any associated reports) See attached report
   - ___ Smoke Testing?_____
   - ___ Dye Testing?_____
   - ___ CCTV?_____
   - ___ Peaking Factors?_____

- If not, why not? Public Works has included funding for a Sanitary Sewer Evaluation Study with the FY2017 Budget in the amount of $200,000.

5. Describe the sewer cleaning and inspection goals. Preventative Maintenance (P/M) cleaning is performed as scheduled on our 5-Year Sewer Cleaning Program. Each fiscal year approximately 20% of the collection system is cleaned by City forces. Follow-up CCTV inspections are conducted on approx. 10% of these lines.
   - X Hot Spots? Problem areas are cleaned monthly or quarterly based on severity.
   - X Annual Goals? As described above.

6 Describe any training for receiving, documenting, and responding to sewer calls.
   - Discharge Estimates? In-house training
   - Safety/Confined Space? Utilities Safety Course (TEEX or TRWA)
   - Lockout/Tagout? Included in the Utilities Safety Course
   - Reporting? In-house training
   - Treatment/Clean-up? In-house training
   - Other?_____

EPA
SSO Inspection Checklist

7. Describe any Asset Management process in place for the collection system. Our asset management process utilizes tools such as GIS and Lucity work order database to operate and maintain the sanitary sewer collection system.

8. Describe the funding status. The following amounts are included in the Annual Operating Budget:

   - Emergency Repairs: $50,000.
   - Operation & Maintenance: $1,100,000. (include Salaries/Payroll Burden)
   - Rehabilitation: $250,000. Annual Sewer Replacement Program
   - Rates: Base Rate = $14.05 + $4.14 / 1,000 gallons
   - Other? _____

9. Describe any formal approach to target areas for Capital Improvement Projects. Replacement of older VCP sewer lines located in backyard easements is our highest priority.

10. Please provide any other relevant information.

    We have experienced a relatively small number of SSO's during the past five years (7 Total).

CERTIFICATION

I certify under penalty of law that I have examined and am familiar with the information provided and in any enclosed documents, including all attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are, to the best of my knowledge and belief, true, accurate, and complete.

SEPT 16, 2016
Date

Signature

WILLIAM K. FISHER - DIR. OF PUBLIC WORKS
Print name and Title

EPA
SSO Inspection Checklist

Lift/Pump Stations

1. How many lift stations are in the system? Seven
   - How many have backup power sources? All seven
   - Describe: Two lift stations have auxiliary generators located on-site. The other five locations would be served by a portable generator, if needed.

2. Describe how pump/lift stations are inspected and monitored? Daily site visits are conducted at alternating locations, so that each lift station is inspected at least twice per week.

3. Is a SCADA system used? Yes. If so, what parameters are monitored? Pump status, run-time, high level/low level, power failure.

4. What provisions have been made for emergencies?
   - Emergency Power? See Question #1
   - Critical Processes?
   - SCADA? See Question #3
   - Other? Sewer Vac-Truck is available for emergencies.

5. Describe any automated emergency notification/response process. SCADA system notifies the on-duty or on-call Operator of any alarm status.

Satellite Systems

1. Does the collection system receive flow from satellite systems? No.
   If yes, continue with questions 2-4

2. Is flow from satellite systems monitored?
   If yes, how?

3. Describe any known problems with the satellite collection system (hydraulic flow, wastewater concentration, ordinances, etc.)?

4. Who is responsible for satellite systems, enforcement, and response?
   - Enforcement?
   - Response?

EPA
SSO Inspection Checklist

Name of Municipality City of Keller, Texas

Collection System Description

1. Describe the collection system. Our collection system consists of approximately 202 miles of sewer main lines, 3,300 manholes, 7 lift stations, and 13,250 service connections.

2. What is the population of the service area:
   - Number of residents 44,050
   - Commercial connections 525
   - Any septic systems? Yes If yes, how many? 1,736

3. How many miles of sanitary sewer mains are in the collection system? 202

4. What is the age of collection system? The majority of the collection system was constructed after 1975.

   %VC ≈ 6%
   %DI ≈ <1%
   %PVC ≈ 92%
   %Other ≈ <2%

5. Does the collection system experience problems during dry weather? No
   Describe or provide documentation:

6. Does the collection system experience problems during wet weather? No
   Describe or provide documentation:

7. What is your sanitary sewer overflow (SSO) notification procedure?
   Required reports are completed and sent to the TCEQ Regional Office.

   What is reported? All SSO's.

8. Are all SSOs reported, regardless of size? Yes. If no, why not?

Appendix 2 - Meeting/Inspection Attendee List

Name of City Keller Date 6/6/2017 Time 9:20am

NAME	TITLE	REPRESENTING	TELEPHONE NUMBER	EMAIL
Antoinette (Toni) Flores	Customer Service Coord.	City of Keller	817 743-4206	aflores@cityofkeller.com
Randy Worthen	Operations Supervisor	City of Keller	817-437-1043	rworthen@CityofKeller
Robert Carrizales	Water/Wastewater Foreman	City of Keller	817-743-4217	rcarrizales@cityofKeller.com
Alonzo Liman	PW Dir	" "	" " -4081	aliman@ " .com
Trina Zais	PS Dir	"	" " 4009	tzais@cityofkeller.com
Joel Miller	Engineer I	" "	817-743-4089	Jmiller@cityofKeller.com
Larry Jones	W/ww Supt.	Keller	817-743-4216	ljones@cityofkeller.com
Dennis Fritz	Sr. Project Engr	" "	4083	dfritz@ " "
Kenny Pfahning	Engineer Tech	City of Keller	817-743-4087	kpfahning@cityofkeller.com
Mike Tillman	Env. Scientist	EPA Rgn 6	214-665-7531	tillman.michael@epa.gov
David Long				

Initials/Date _____/_____

Appendix 3 – City of Keller SSO Report Example

Water Quality Noncompliance Notification

See back of Form for Guidance for Completion

☒ Unauthorized Discharge ☐ Reportable Effluent Violation ☐ Other

General Information

Entity Name: City of Keller **Telephone No: (817)743-4200**

☐ Permittee ☒ Subscriber

TCEQ Region: 4 **County: Tarrant** ***Permit Number: TRA**

Noncompliance Summary

Description of Noncompliance (include location, discharge route, and estimated volume of unauthorized discharge): The sewer manhole at 912 Western Trail had a discharge of approximately 400 gallons. The flow was to the north into a storm drain.

Cause of Noncompliance:
A sewer line blockage due to tree roots.

Duration: **Start Date and Time:** 7-8-14 1:40 PM
End Date and Time: 7-8-14 2:00 PM **Or** **Date Expected to be Corrected:**

Potential Danger to Human Health and Safety or the Environment: None.

Actions Taken

Monitoring Data: Data should be attached or submitted to TCEQ when available.

☐ Yes ☒ No **Field Measurements**
☐ Yes ☒ No **Laboratory Samples**
☐ Yes ☒ No **Fish Kill If yes, estimated number killed:**

Actions Taken to Mitigate Adverse Effects: Flushed area with water. Jetted sewer main to unstop blockage.

Actions Taken to Correct the Problem and Prevent Recurrence: Televised sewer line to determine if any repairs are necessary.

Verification Information

Information Reported By (Name/Title): Terry Lee Wroblewski, Crew Leader

Date Reported: 7-9-14 **Signature:**

Note: If this form is being used for a 5-day written report, a copy of the form should be sent to the TCEQ Region Office, and the original to: TCEQ, Compliance Monitoring Team (MC224), Enforcement Division, P.O. Box 13087, Austin, TX 78711-3087.

* If the noncompliance is an unauthorized discharge from a wastewater collection system, use the permit number of the treatment plant to which the collection system is tied. If you are uncertain of this permit number, you may call the TCEQ Regional Office for assistance.

Water Quality Noncompliance Notification

See back of Form for Guidance for Completion

☒ Unauthorized Discharge ☐ Reportable Effluent Violation ☐ Other

General Information

Entity Name: City of Keller **Telephone No:** (817) -743-4200

☐ Permittee ☐ Subscriber

TCEQ Region: 4 **County:** Tarrant ***Permit Number:** TRA

Noncompliance Summary

Description of Noncompliance (include location, discharge route, and estimated volume of unauthorized discharge):

Located at 409 Gloria Street, flow was to the south into the storm drain. Approximately 500 gallons spilled from the main line cleanout.

Cause of Noncompliance:

Appeared to be construction debris.

Duration: **Start Date and Time:** 9-16-14, 7:00 PM
End Date and Time: 9/16/14, 9:00 PM **Or** **Date Expected to be Corrected:**

Potential Danger to Human Health and Safety or the Environment:

None

Actions Taken

Monitoring Data: Data should be attached or submitted to TCEQ when available.

☐ Yes ☑ No **Field Measurements**
☐ Yes ☑ No **Laboratory Samples**
☐ Yes ☑ No **Fish Kill If yes, estimated number killed:**

Actions Taken to Mitigate Adverse Effects:

Ran main line with hydro jetter. Flushed with potable water.

Actions Taken to Correct the Problem and Prevent Recurrence:

After jet-rodding and flushing the line, we performed a CCTV inspection and found a stick lodged in the sewer main. We removed it and the main is flowing clear.

Verification Information

Information Reported By (Name/Title): Willy Clark, Sewer Inspection Technician

Date Reported: 9-17-14 **Signature:** Willy Clark

Note: If this form is being used for a 5-day written report, a copy of the form should be sent to the TCEQ Region Office, and the original to: TCEQ, Compliance Monitoring Team (MC224), Enforcement Division, P.O. Box 13087, Austin, TX 78711-3087.

* If the noncompliance is an unauthorized discharge from a wastewater collection system, use the permit number of the treatment plant to which the collection system is tied. If you are uncertain of this permit number, you may call the TCEQ Regional Office for assistance.

Water Quality Noncompliance Notification

See back of Form for Guidance for Completion

☒ Unauthorized Discharge ☐ Reportable Effluent Violation ☐ Other

General Information

Entity Name: City of Keller Telephone No: (817) 743-4200

☐ Permittee ☐ Subscriber

TCEQ Region: 4 County: Tarrant *Permit Number: TRA

Noncompliance Summary

Description of Noncompliance (include location, discharge route, and estimated volume of unauthorized discharge): Manhole at 509 Shady Oak Dr was overflowing. Discharge was to the east into a storm drain. The volume was round 400 gallons.

Cause of Noncompliance: Unknown at this time, may have been grease or roots

Duration: Start Date and Time: 12/16/2015, 10:00 a.m.
End Date and Time: 12/16/15, 10:30 a.m. Or Date Expected to be Corrected:

Potential Danger to Human Health and Safety or the Environment: None

Actions Taken

Monitoring Data: Data should be attached or submitted to TCEQ when available.

☐ Yes ☒ No Field Measurements
☐ Yes ☒ No Laboratory Samples
☐ Yes ☒ No Fish Kill If yes, estimated number killed:

Actions Taken to Mitigate Adverse Effects: Flushed area with 1,000 gallons of water

Actions Taken to Correct the Problem and Prevent Recurrence: Will camera section of sewer main to see what the cause may be

Verification Information

Information Reported By (Name/Title): Terry Lee Wroblewski, Water & Sewer Crew Leader

Date Reported: 12-17-15 Signature:

Note: If this form is being used for a 5-day written report, a copy of the form should be sent to the TCEQ Region Office, and the original to: TCEQ, Compliance Monitoring Team (MC224), Enforcement Division, P.O. Box 13087, Austin, TX 78711-3087.

* If the noncompliance is an unauthorized discharge from a wastewater collection system, use the permit number of the treatment plant to which the collection system is tied. If you are uncertain of this permit number, you may call the TCEQ Regional Office for assistance.

Water Quality Noncompliance Notification

See back of Form for Guidance for Completion

☒ Unauthorized Discharge ☐ Reportable Effluent Violation ☐ Other

General Information

Entity Name: City of Keller **Telephone No:** (817) 743-4200

☐ Permittee ☒ Subscriber

TCEQ Region: 4 **County:** Tarrant ***Permit Number:** TRA

Noncompliance Summary

Description of Noncompliance (include location, discharge route, and estimated volume of unauthorized discharge):
Manhole overflow at 940 Western Trail. The discharge was to the west in gutter. Volume was about 20 gallons.

Cause of Noncompliance:

Duration: **Start Date and Time:** 3/28/16; 9:15am
End Date and Time: 3/28/16; 9:45am **Or** **Date Expected to be Corrected:**

Potential Danger to Human Health and Safety or the Environment: None

Actions Taken

Monitoring Data: Data should be attached or submitted to TCEQ when available.

☐ Yes ☒ No **Field Measurements**
☐ Yes ☒ No **Laboratory Samples**
☐ Yes ☒ No **Fish Kill If yes, estimated number killed:**

Actions Taken to Mitigate Adverse Effects:

Actions Taken to Correct the Problem and Prevent Recurrence:

Verification Information

Information Reported By (Name/Title): Willy Clark – Sewer Inspection Technician

Date Reported: 3/28/16 **Signature:** Willy Clark

Note: If this form is being used for a 5-day written report, a copy of the form should be sent to the TCEQ Region Office, and the original to: TCEQ, Compliance Monitoring Team (MC224), Enforcement Division, P.O. Box 13087, Austin, TX 78711-3087.

* If the noncompliance is an unauthorized discharge from a wastewater collection system, use the permit number of the treatment plant to which the collection system is tied. If you are uncertain of this permit number, you may call the TCEQ Regional Office for assistance.

Accidental Discharge or Spill Monthly Summary Form

See back of form for guidance for completion

General Information:

Permittee: ☐

Subscriber: ☒

Regulated Entity Name: CITY OF KELLER

EPA ID No: Click here to enter text.

Regulated Entity No: Click here to enter text.

TCEQ Region: Region 4 - DFW

Permit No: RN #101389096

County: Tarrant

Start Date Start Time	End Date End Time	Volume (gallons)	Location	Cause	Steps taken to reduce, eliminate, and prevent recurrence	Description/Content	Standard Method for Volume Calculation
1-2-17 1:00 pm	1-2-17 2:15 pm	300	625 Silver Chase Dr.	Blockage	Clean/inspect sewer line.	Contents unknown. Flushed area with water.	Visual estimate and Counting Connections.

Information Reported by (Name/Title) Larry Jones, Water Supt. Signature: Larry Jones

Date Reported 2-8-17

TCEQ-20756 (06-27-16)

Note: A copy of this form should be sent to your TCEQ Regional Office no later than the 20th day of the following month and the original to the TCEQ Compliance Monitoring Team (MC224), Enforcement Division, P.O. Box 13087, Austin, TX 78711-3087

*If the accidental spill or discharge occurs at a Subscriber system (collection system only), use the RN associated to the collection system. If you are uncertain of your RN, you may call the TCEQ Regional Office for assistance.

Sample Worksheet

City of Keller
(City or Agency Name)

SSO Volume Estimation Worksheet

SSO Address/Location: 625 Silver Chase Dr. **Date:** 1-2-17

SSO Volume Method of Estimation (check appropriate box and provide appropriate information for method used below)

Pictorial Reference Flow Rate Chart (San Diego Chart ☐ CWEA Ruler ☐)
Vent or Pick Holes ☐ Eyeball estimate ☐

Measured volume ☐ Counting Connections ☒ Manhole Ring ☐ Partially Covered Manhole ☐ Open Manhole ☐

Bucket Method ☐ Pipe Size Method ☐ Gutter Flow Method ☐ Metered Flow ☐
Rain Event Method ☐

Saturated Soils Method ☐ Combo/Vacuum Truck Recovery Method ☐

Spill Start Date: 1-2-17 Spill Start Time: 1:00 pm

Spill End Date: 1-2-17 Spill End Time: 2:15 pm Total Est. Spill Volume (gal): 300

Provide a detailed description of the method(s) used to determine the SSO estimate. (Use additional sheets as needed)

# of connections	24
Estimated flow per parcel	10 gal. per hr.
Duration of SSO event	1.25 hr.
Total Spill Estimation	300 gallons

Signed: Willy Clark **Date:** 1-2-17

Accidental Discharge or Spill Monthly Summary Form

See back of form for guidance for completion

General Information:

Permittee: ☐ Subscriber: ☒

Regulated Entity Name: CITY OF KELLER EPA ID No: Click here to enter text.

Regulated Entity No: Click here to enter text. TCEQ Region: Region 4 - DFW

Permit No: RN #101389096 County: Tarrant

Start Date Start Time	End Date End Time	Volume (gallons)	Location	Cause	Steps taken to reduce, eliminate, and prevent recurrence	Description/Content	Standard Method for Volume Calculation
3-7-17 6:30 pm	3-7-17 7:30 pm	120	222 Austin St.	Blockage	Clean/inspect sewer line.	Contents unknown. Flushed area with water.	Visual estimate and Counting Connections.

Information Reported by (Name/Title) Larry Jones, Water Supt. Signature: Larry Jones

Date Reported 4-12-17

TCEQ-20756 (06-27-16) Page 1

Note: A copy of this form should be sent to your TCEQ Regional Office no later than the 20th day of the following month and the original to the TCEQ Compliance Monitoring Team (MC224), Enforcement Division, P.O. Box 13087, Austin, TX 78711-3087

*If the accidental spill or discharge occurs at a Subscriber system (collection system only), use the RN associated to the collection system. If you are uncertain of your RN, you may call the TCEQ Regional Office for assistance.

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Sample Worksheet

City of Keller
(City or Agency Name)

SSO Volume Estimation Worksheet

SSO Address/Location: 222 Austin **Date:** 3-7-2017

SSO Volume Method of Estimation (check appropriate box and provide appropriate information for method used below)

Pictorial Reference Flow Rate Chart (San Diego Chart ☐ CWEA Ruler ☐)
Vent or Pick Holes ☐ Eyeball estimate ☐

Measured volume ☐ Counting Connections ☒ Manhole Ring ☐ Partially Covered Manhole ☐ Open Manhole ☐

Bucket Method ☐ Pipe Size Method ☐ Gutter Flow Method ☐ Metered Flow ☐
Rain Event Method ☐

Saturated Soils Method ☐ Combo/Vacuum Truck Recovery Method ☐

Spill Start Date: 3-7-17 Spill Start Time: 6:30

Spill End Date: 3-7-17 Spill End Time: 7:30 Total Est. Spill Volume (gal): 120 gpHR

Provide a detailed description of the method(s) used to determine the SSO estimate. (Use additional sheets as needed)

12 conn x 10 gallon x 1.0 = 120 gpHR

Signed: _____ Date: 3-24-2017