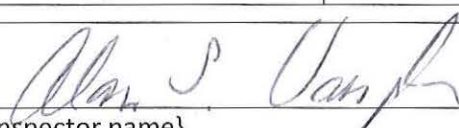
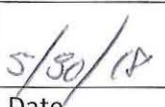
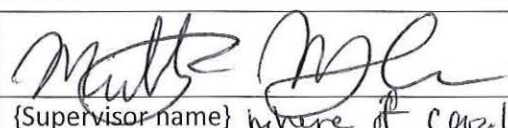
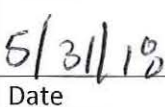


Region 6 Compliance Assurance and Enforcement Division
INSPECTION REPORT

Inspection Date(s):	September 14, 2017		
Media:	Municipal Wastewater		
Regulatory Program(s)	NPDES		
Utility Name:	Southlake, City of		
Facility inspected:	Southlake Wastewater Collection System		
Facility Physical Location:	Public Works Field Operations Service Center 1950 E. Continental Blvd		
(city, state, zip code)	Southlake, Texas 76092		
Mailing address:	1400 Main Street, Suite 320		
(city, state, zip code)	Southlake, Texas 76092		
County/Parish:	Tarrant County		
Facility Contact:	Jack Thompson	Public Works Director	
	jthompson@ci.southlake.tx.us		
FRS Number:	110010934490		
Identification/Permit Number:	TXU000156 [served by TRA Central Regional Wastewater System (TX0022802)]		
NAICS:	221320		
SIC:	4952		
Personnel participating in inspection:			
Terry Holloway	City of Southlake Public Works	Manager	817-748-8606
Jack Thompson	City of Southlake Public Works	Wastewater Supervisor	817-748-7200
Cristina McMurray	City of Southlake Public Works	Deputy Director- Operations	817-748-8080
Ashley Carlisle	City of Southlake Public Works	Environmental Coordinator	817-748-8638
Alan Vaughn	EPA R6 (6 EN-WM)	Environmental Engineer	214-665-7487
Mike Tillman	EPA R6 (6EN-WM)	Environmental	214-665-7159
EPA Lead Inspector Signature/Date			
			
		{Inspector name}	Date
Supervisor Signature/Date			
			
		{Supervisor name} Mike Tillman	Date

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

The inspection purpose is to examine the City of Southlake's (or City) sanitary sewer collection system as an element of the EPA's National Sanitary Sewer Overflow (SSO) Initiative to prevent raw sewage from entering our streets, rivers, reservoirs, front yards, etc. For further SSO initiative information you may reference the web link: <https://www.epa.gov/enforcement/water-enforcement>. The inspection scope is to generally evaluate the municipalities that receive Trinity River Authority (TRA) wastewater treatment services in order to assist in stopping or mitigating unauthorized/unpermitted discharges or SSOs.

EPA Region 6 inspectors arrived at the City Public Works Utility Office at 9:00 am on September 14, 2017, for an announced Compliance Evaluation Inspection. We met with the City's Wastewater Utility Officials illustrated by the inspection sign-in sheet in Appendix "2". We presented our credentials to the group. The purpose of the inspection was broadly explained as a collection system compliance evaluation of areas such as capacity, management, operations, and maintenance (CMOM) and associated SSO mitigation activities; as well as comprehensive SSO reporting according to Texas law. For further CMOM program guidance you may reference the web link: https://www3.epa.gov/npdes/pubs/cmom_guide_for_collection_systems.pdf.

The inspection was conducted in accordance with the Clean Water Act (CWA). The City's collection system is regulated under the:

- Texas Water Code (TWC)
- Texas Administrative Code (TAC)
- Texas Health and Safety Code
- Clean Water Act (CWA)
- Code of Federal Regulations (CFR)
- Associated CRWWS NPDES General Permit Conditions

Before leaving the facility, an exit briefing was conducted that explained observations, suggestions and areas of concern. This inspection 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 U.S. EPA.

FACILITY DESCRIPTION

Southlake was described as a relatively affluent City and a suburb of Fort Worth located in northeast Tarrant County, Texas. The City Wastewater Utilities Department is located at 1950 E. Continental Blvd, Southlake, TX 76092. The City's Wastewater (WW) Utilities serves about 28,000 residents with approximately 1141 commercial connections covering approximately 22 square miles. The WW utility operates 24 hours a day and seven days a week. The City's collection system consists of approximately 208 miles of gravity lines and force mains, thirteen lift stations (plus one under construction), and

approximately 3,000 manholes. The collection system gravity lines consist of 100% PVC. The lift stations are connected remotely to the City's supervisory control and data acquisition (SCADA) system.

When an overflow from the City's collection system or from a private lateral caused by the City occurs, the Texas Commission on Environmental Quality (TCEQ) is notified within 24 hours as required by Texas law. Sanitary sewage is routed through the City's collection system to the TRA trunk line. The City's wastewater is then transmitted to either the TRA Central Regional Wastewater Treatment System (TX0022802) or the TRA Denton Regional Wastewater Treatment System (TX0104957) for contractual wastewater treatment.

Section II - OBSERVATIONS

A) The City described the wastewater utilities Capacity Management Operations and Management Program (CMOM) activities that includes the following:

- June 2017 - Phase 1 CMOM Plan prepared by Freese and Nichols, Inc.
- Protocols for Identifying SSO's
- GIS/Work order system (Google.docs)
- Routine maintenance program
- Hot-spot cleaning program
- Manhole/system inspection program
- System rehabilitation program
- Lift station maintenance program
- Fats, oils and grease (FOG) control program

B) Based on the inspection discussions, data analysis, and observations:

- It was determined by TCEQ and the Facility that the City's collection system age and failure frequency does not support development and participation in the TCEQ Sanitary Sewer Overflow Initiative at this time.
- The City operates an aggressive routine maintenance program which includes cleaning of the wastewater collection system with high pressure cleaning equipment and debris removal at least once a year.
- Sufficient funding was reported as budgeted annually to adequately fund all routine maintenance and standard repairs to the wastewater systems.
- The City's few SSOs over the past couple of years are not at same location nor repeat cases.
- The City reported that it has a roughly six fulltime wastewater utility staff, and approximately twelve drinking water staff.

C) The standard operational procedures (SOP) developed and used include:

- SCADA
- Routine Inspections & Maintenance
- SSO Clean-up
- Lift Station maintenance
- Sewer cleaning equipment operations and

Relevant regulatory information:

- a. Failure to prevent unauthorized/unpermitted discharges or Sanitary Sewer Overflows is stipulated in TAC § 305.125(9); TWC § 26.121(a); Section 301 of the CWA; and 40 CFR § 122.1(b) corresponding to the "NPDES Permit" General Conditions.
- b. Failure to implement proper O&M of the collection system is stipulated in Title 30 of the TAC § 305.125(5) & 40 CFR § 122.41(e) corresponding to the "NPDES Permit" General Conditions.

Section III – RECOMMENDATIONS AND SUGGESTIONS

EPA generally recommends that the City:

1. Evaluate adequacy of current wastewater staffing levels.
2. Implement an updated work order management system which is compatible with GIS.
Implement an updated asset management program.
3. EPA generally recommends that the City implement a CMOM program.

Section IV – FOLLOW UP

None necessary

Section V – LIST OF APPENDICES

Appendix 1 – City of Southlake SSO Checklist

Appendix 2 – Opening conference sign-in sheet

Appendix 1
City of Southlake SSO Checklist

EPA
SSO Inspection Checklist

Name of Municipality: *CITY OF SOUTHLAKE*

Collection System Description

1. Describe the collection system: *All PVC – 6" to 24" gravity mains, concrete M.H. pre-cast & pour-in-place, 13 sewer lift stations, flow to TRA Central and Denton Creek Treatment Plants.*
2. What is the population of the service area:
 - Number of residents *28,412*
 - Commercial connections *1141*
 - Any septic systems? *Yes* If yes, how many? *1347*
3. How many miles of sanitary sewer mains are in the collection system? *208.61 Gravity & Force*
4. What is the age of collection system? *1987*

%VC ≈	<i>-0-</i>
%DI ≈	<i>-0-</i>
%PVC ≈	<i>100</i>
%Other ≈	<i>-0-</i>

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? *Yes*

Describe or provide documentation: *Bank Street Lift Station is located in a commercial/industrial area and receives an increase of surface water flow to the top of wet-well. Dove Estates has some increased flow due to customer rain gutters connected to service lines & open clean outs.*

7. What is your Sanitary Sewer Overflow (SSO) notification procedure? *Complete SSO Report and forward to TCEQ.*

What is reported? *Date, time of day, address, location on property, amount of overflow, cause of overflow, remedy for repairs, steps taken to prevent future overflow, clean-up process, fish kill?, time completed.*

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

EPA SSO Inspection Checklist

Lift/Pump Stations

1. How many lift stations are in the system? *13 plus Torian (under construction) and Sadleback Ridge (under construction)*
 - How many have backup power sources? *Two current, two funded for 2017 budget and two proposed in 2018.*
 - Describe: *350K mobile generator, two 40K on-site generators to be added at Bank Street & Quail Run in FY2017.*
2. Describe how pump/lift stations are inspected and monitored? *SCADA monitoring, inspected monthly (or more) and wet-wells cleaned quarterly.*
3. Is a SCADA system used? *Yes* If so, what parameters are monitored? *Wet-well levels, pump operation, power supply, communication with SCADA, pump starts, pump run time, pump trend cycles.*
4. What provisions have been made for emergencies? *Generator, 6" By-Pass Silent Pump. 3300 Gallon Pump Truck, Haz-Mat CO.*
 - Emergency Power? *Mobile Generator, On-Site Generator.*
 - Critical Processes? *1st Priority w/power company to restore power loss.*
 - SCADA? *Main server at Town Hall, back-up server at Pump Station #1*
 - Other? *On-Call personnel*
5. Describe any automated emergency notification/response process. *SCADA text messaging, Connect CTY (reverse 911).*

Satellite Systems

1. Does the collection system receive flow from satellite systems? *Yes – City of Keller (two) and Town of Westlake (one)*
If yes, continue with questions 2-4
2. Is flow from satellite systems monitored? *Yes*
If yes, how? *SCADA, Flow Meters*
3. Describe any known problems with the satellite collection system (hydraulic flow, wastewater concentration, ordinances, etc.)? *None*
4. Who is responsible for satellite systems, enforcement, and response? *Shared*
 - Enforcement? *Dictated by Inter-local Agreement*
 - Response? *Dictated by Inter-local Agreement*

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: *Results from Sanitary Sewer Evaluation Study (SSES), (2008-2010), City of Southlake 2030 Master Plan, scheduled Capital Improvement Programs (C.I.P), Preventative Maintenance Programs for: Pumps, Wet-Well, Odor Control, Fundamentals of Oil and Grease (F.O.G.) Programs, Collection System Cleaning.*

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? *Collection System is new and overflows are not expected due to preventative maintenance programs in place.*

3. What Standard Operational Procedures (SOP) are developed and used?

• ☒ SCADA? • ☒ Routine Inspections/Maintenance? • ☐ Root Control? • ☒ Lift/Pump Stations?	• ☐ Valve maintenance? • ☐ Fleet Management? • ☒ Clean-up? • ☐ Other? _____
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4. Has an infiltration & inflow (I/I) analyses or sanitary system evaluation survey been performed? *Yes - SSES*
 - If yes, describe (and provide a copy of any associated reports): *Wet weather/dry weather flow monitoring, capacity measures, manhole inspections, smoke testing, CCTV.*
 - ☒ Smoke Testing? *Define areas recognized by flow monitoring, (performed by RJN).* _____
 - ☐ Dye Testing? _____
 - ☒ CCTV? *One point repair identified.* _____
 - ☒ Peaking Factors? *For 25 year and 100 year floods (performed by Cheatham & Associates).* _____
 - If not, why not? _____

5. Describe the sewer cleaning and inspection goals. *Jet clean every linear foot once per year. Two Jet Cleaning trucks, one for north basins and one for the south basins. Inspect every M.H. with line maintenance. Televising mains for more accurate diagnosis.*
 - ☒ Hot Spots? *Twelve-weekly, monthly, bi-monthly & quarterly cleaning. A total of 300,000 linear ft/year.*
 - ☒ Annual Goals? *Clean entire system annually. 1.3 million linear feet.*

6. Describe any training for receiving, documenting, and responding to sewer calls.
 - Discharge Estimates? *Visual estimates.*
 - Safety/Confined Space? *TEEX Certified Training.*
 - Lockout/Tagout? *N/A*
 - Reporting? *"Come Fix It" forms accessed from City Website, Google Docs Work Order System.*
 - Treatment/Clean-up? *General clean-up – contracted source for clean-up.*
 - Other? _____

EPA
SSO Inspection Checklist

7. Describe any Asset Management process in place for the collection system. *G.I. S. Mapping System which identifies manholes with installation dates, flow line & rim elevations, I.D.#, manholes and lift station wet-wells which have been rehabbed, pipe size, pipe type, linear feet between manholes, and basins.*
8. Describe the funding status.
- Emergency Repairs: *Funded as necessary.*
 - Operation & Maintenance: *System maintenance account for repairs and maintenance.*
 - Rehabilitation: *C.I.P. for manholes and wet-wells. C.I.P. to eliminate "Hot Spots" and to increase pipe size capacity.*
 - Rates: *Residential and commercial rates are based off of water consumption during the months of December, January, and February. These fees are collected monthly.*
 - Other? *Sanitary Sewer Impact Fee (SSIF) and Utility Fund.*
9. Describe any formal approach to target areas for Capital Improvement Projects. *"Neighborhood Sewer Projects" are scheduled as septic system owners show increased interest in converting to City Sewer. Southlake's 2030 Wastewater Master Plan identifies C.I.P. Projects.*
10. Please provide any other relevant information. *Line maintenance, pump replacement, grease/odor control, odor monitoring, CCTV inspection, system rehab programs in place.*

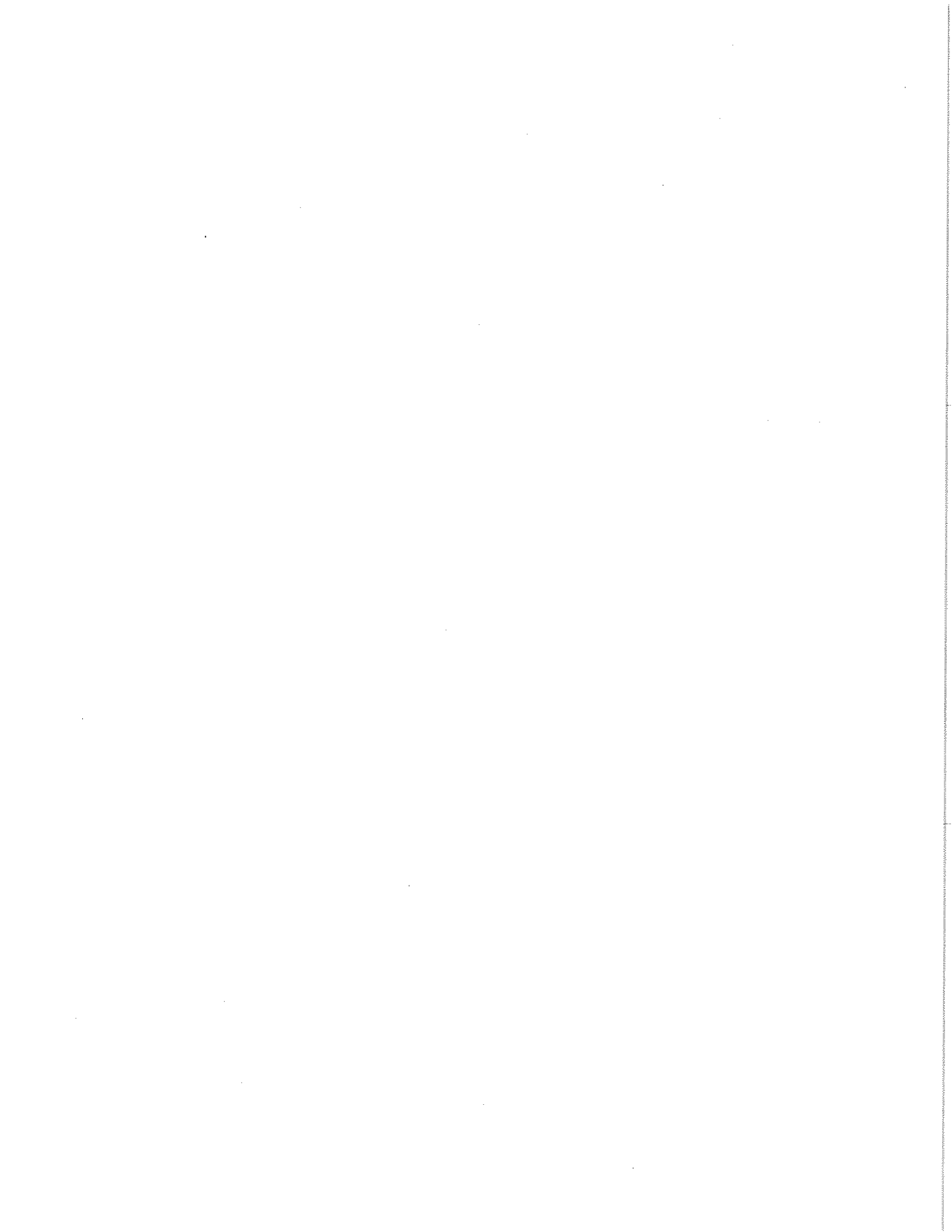
CERTIFICATION

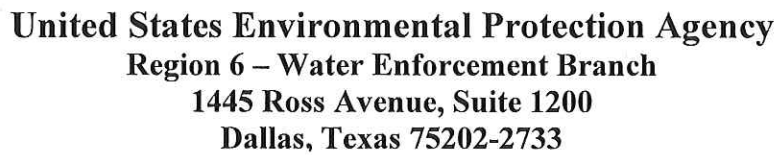
I certify under penalty of law that I have examined and am familiar with the information provided and in any enclosed documents, including all attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information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

Sept. 15, 2016
Date

Jack Thompson
Signature
Jack Thompson, Wastewater Supervisor
Print name and Title

Appendix 2
Meeting/Inspection Attendees List



[illegible]

