

## **Texarkana Water Utilities**

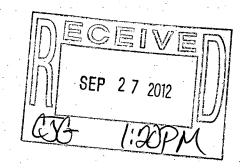
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September 27, 2012

Ms. Lindsay Copenhaver
Enforcement Analyst
Water Division, Enforcement Branch
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118-5317



Re: NPDES Permit Number: AR0048691 AFIN: 46-00237

City of Texarkana - North WWTP

Dear Ms. Copenhaver:

Please consider this document the response to your letter of September 11, 2012; Re: NPDES Permit Number AR0048691 AFIN: 46-00237 City of Texarkana – North Wastewater Treatment Plant (WWTP). I appreciate your kindness in allowing Texarkana the extra time to respond.

We received a second letter (certified mail 91 7199 9991 7030 4904) on the same day as the letter to which this correspondence responds (September 14, 2012). As a point of information, the second letter refers to a letter sent to me on July 31, 2012. We have no record of receiving that correspondence. I hope this response will serve as response to both. If not, we will be happy to provide whatever information is necessary.

The thirty-one (31) Sanitary Sewer Overflows (SSO), from January 2009 through July 2012, which you referenced, all took place in Texarkana, Arkansas as reported. However, only three of the SSO's took place in the collection system of the North Texarkana WWTP. The remaining twenty-eight SSO's took place in the Texarkana, Arkansas portion of the collection system of the South Regional WWTP located in Texas. This information is for clarification only. I have enclosed a general location map of the SSO's that shows the general distribution of the occurrences.

The Texarkana collection system is made up of 1,034,275 feet of sewer main, approximately 70% of which is clay tile mains with many brick manholes. The relatively small collection system of the North Texarkana WWTP, located in both Texas and Arkansas, has a much higher percentage of eight inch PVC mains than the older portion of Texarkana, Arkansas collection system that flows into the South Regional WWTP located in Texas.

Texarkana has had an aggressive collection system cleaning program, inflow & infiltration (I & I) location and remediation program, sewer repair and replacement program and grease trap program since the 1990's.

Texarkana's Sewer Collection Division has four "jet" cleaning devices. One of the four is an older device used as a backup when one of the other three is out of service for repairs. The two large units are engaged in regular, daily systematic cleaning of the collection system except when responding to emergency collection system problems. Personnel are on call 24/7 for system problems. One of the two large units is equipped with a camera unit and both of the larger units are capable of root cutting.

The I & I Division of Texarkana Water Utilities is composed of two full time employees, one temporary and one part time intern. The division manager is Mr. David Waldrop, a registered professional engineer. The I & I Division's primary function is to reduce and eliminate I & I of water into the sanitary sewer system. This primary function is performed with the aid of special equipment and a dedicated workforce. The primary method of reducing I & I is visually inspecting the system looking for signs of failures and leaks. The visual inspection is followed up by smoke testing and CCTV inspections of lines. As the inspection process locates defects within the system, work orders generated in the Engineering Division are sent to the Operations Division for timely repairs. Detailed planning and record keeping is used when an inspection is scheduled for any part of the sanitary sewer system. The goal is to inspect the complete system once every 5 years. This includes both the collection system in Texarkana, Texas and Texarkana, Arkansas.

In addition to the ongoing inspection and repair of the sanitary sewer system, the I & I Division develops rehabilitation projects for parts of the sanitary sewer system to extend the service life of existing sanitary sewer lines before failures occur. The I & I Division is also charged with inspecting and CCTV'ing all new sanitary sewer main lines prior to acceptance to insure quality of installation and that the lines are defect-free. The I & I Division also assists in determining cause and methods of repair for failures of a sanitary sewer line.

Additional duties of the I & I Division include sewer flow monitoring using various types of devices to track sewer flows for future planning and prediction of need and a long range, long term, project of developing a dynamic sewer model of the sanitary sewer system, which will enable the Utility to better predict need for expansion and replacement as well as a tool to predict failures prior to the event.

The Utility Engineering Division uses information from the I & I Division, GIS Division, Sewer Collection Division and other resources within the Engineering Division to plan and implement sewer system repairs and remediation. These items include manhole replacements, manhole lining, point repairs, short sewer main replacements that are handled by in house personnel as well as larger projects that are bid to contractors. One such Texarkana, Arkansas project, designed in house will replace approximately 5,000 feet of clay tile sewer main and twenty five manholes. This project is currently estimated to cost \$550,000 and will go to bid on October 14, 2012. Two registered professional engineers in the Engineering Division help support these activities.

Two Engineering Division employees are dedicated to activities regarding backflow prevention in the water distribution system and grease trap plan review, installation and periodic inspection. All new commercial plans are reviewed for the need of a grease trap. Regular cleaning and inspection of these grease traps is required.

The Utility intends to expand its commercial and residential customer education programs over the next two years regarding items not to place in sanity sewers, to include proper handling of household grease, various paper products, disposal diapers, leaves, and other personal products.

The Utility has made reasonable headway in system wide (Texas and Arkansas) reduction of I & I as measured by flows to the South Regional WWTP during heavy rainfall events. This plant has twenty million gallons of I & I storage. In the early 1990's; shortly after the plant went on line, heavy rainfall events results in flow rates greater than fifty-five million gallons per day (MGD). However, flow rates are currently below thirty-five MGD in the heaviest rainfall events.

The preceding is a very brief summary of activities carried out by Texarkana Water Utilities. All of the preceding referenced activities are carried out by well trained and dedicated employees who treat a point repair, a major project, a grease trap inspection or offering a customer a free sewer clean out cap with equal zeal. We would welcome a visit by ADEQ to tour our system or allow us to visit your office in Little Rock to provide more detail.

Regarding the six effluent violations for NPDES permit No. AR0048691, please note that four of the violations occurred in 2009; three of these 2009 violations were for flow (May 2009, October 2009 and December 2009). We would contend that the I & I activities in the North Texarkana collection system have significantly reduced I & I flows and prevented repeated violations. The August 2009 fecal violation occurred on a day of heavy thunderstorms. A lightning strike knocked the plant off line power. When the starter on the emergency generator failed, the UV disinfection system went down for a short period. The power and UV disinfection were restored before close of work that day. Since then maintenance, maintenance training and regular testing of the emergency generator have all been increased and upgraded to prevent reoccurrence. The March 2012, violation for total suspended solids occurred when a clarifier drive malfunctioned. Regular inspection and maintenance have been increased to detect problems, whenever possible, before they occur. The April 30, 2012 dissolved oxygen violation has been found to be a transcription error. Plant record show the dissolved oxygen should have been recorded on the report as 8.6 mg/L.

Please contact me by email or telephone to discuss any items or obtain further details or information.

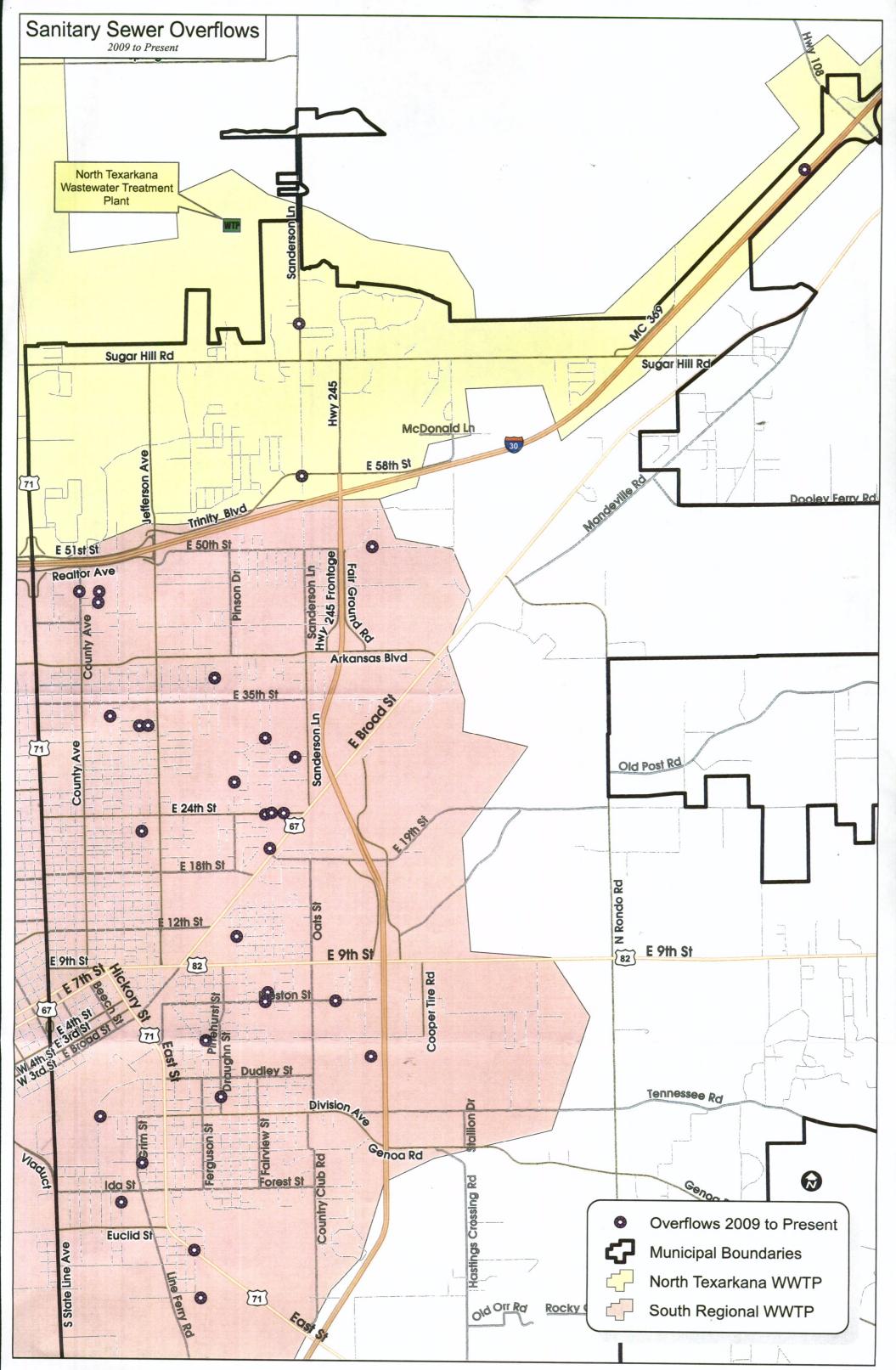
Sincerely,

**Texarkana Water Utilities** 

William D. King, Jr.

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