



# Audit of Dallas Water Utilities Wastewater Operations' Environmental Reporting

July 23, 2024

Mark S. Swann, City Auditor

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## Executive Summary

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### Objectives and Scope

The objectives of this audit were to evaluate whether there are internal controls that ensure that Dallas Water Utilities Wastewater Operations' environmental reports are: (1) accurate; and, (2) submitted by the regulatory deadlines.

The scope of the audit was from January 1, 2021, to December 31, 2022.

### Recommendations

No recommendations are associated with this report.

### Background

The Dallas Water Utilities Department is permitted to treat and discharge wastewater from two wastewater treatment facilities into the Trinity River. The Texas Commission on Environmental Quality (TCEQ) prescribes the quality of the wastewater discharged and sewage sludge disposed by the Dallas Water Utilities.

The TCEQ requires Dallas Water Utilities to periodically report the levels of certain chemicals in the discharged treated wastewater and disposed sewage sludge.

### Observed Conditions

A comparison of a random sample of 479 reported wastewater quality measurements with the initial laboratory test results shows that the Dallas Water Utilities Department's reports to the Texas Commission on Environmental Quality during the audit period were accurate. In addition, the review of laboratory test documentation shows evidence of supervisory review, segregation of duties, proper chain of custody documentation, and correct date recording.

Dallas Water Utilities has internal controls to ensure that environmental reports are accurate and submitted by the regulatory deadlines, such as written procedures and work instructions, training and certification of laboratory technicians, quality assurance review, and laboratory proficiency tests to verify the accuracy of the city's tests.

## Objectives and Conclusions

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1. Has the Dallas Water Utilities Department submitted wastewater and sewage sludge quality reports to TCEQ by the regulatory deadlines?

**Yes.** The Dallas Water Utilities Department submitted all required wastewater and sewage sludge quality reports to TCEQ by the regulatory deadlines during the past 5 years.

2. Do the wastewater and sewage sludge quality reports submitted to TCEQ accurately reflect results of laboratory tests during the audit period?

**Yes.** A comparison of a random sample of 479 measurements reported to TCEQ<sup>1</sup> during the audit period to the original laboratory results shows that the measurements reported to TCEQ match the results of laboratory tests.

3. Is there evidence that the Dallas Water Utilities Department's internal controls designed to ensure accurate and timely wastewater and sewage sludge environmental reporting functioned as intended during the audit period?

**Generally, yes.** While the Dallas Water Utilities Department's hand-written laboratory worksheets do not always show evidence of acceptable supervisory review, segregation of duties, chain of custody, and correct date recording, these omissions did not result in inaccurate reporting to TCEQ. The department has written procedures that describe the preparation of reports and the submission deadline for each required report. To ensure that laboratory analysts can generate accurate and precise test results, the Dallas Water Utilities Department requires each analyst to be internally certified for demonstration of capability for each test. Also, a quality assurance group within the Wastewater Operations is required to verify at least ten percent of daily laboratory results each month. Additionally, the Dallas Water Utilities Department's laboratories participate in national proficiency test studies annually to demonstrate laboratory competency.

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<sup>1</sup> Auditors reviewed 25 random daily measurements from 48 monthly reports of treated wastewater effluent characteristics and flow volume. Auditors also reviewed four of 24 monthly reports of reclaimed water effluent characteristics, 11 of 23 quarterly and annual reports of biomonitoring toxicity tests, and one of two annual reports of sewage sludge (biosolids) characteristics.

## Appendix A: Background and Methodology

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### Background

Texas Commission on Environmental Quality (TCEQ) has issued permits for two Dallas wastewater treatment facilities to treat and discharge wastewater into the Trinity River and dispose of sludge at the city-owned dedicated disposal site.

The permits include limitations on the discharged volumes, monitoring requirements, and other conditions. The permits require that Dallas Water Utilities Wastewater Operations report the levels of specific chemicals and bacteria present in the discharged treated wastewater and disposed sludge.

The Southside Wastewater Treatment Plant is located at 10011 Log Cabin Road on the east side of the Trinity River. It processes sewage sludge and wastewater. The Central Wastewater Treatment Plant is located at 1020 Sargent Road on the west bank of the Trinity River. It processes wastewater only. Both treatment plants perform daily measurements of the wastewater quality and report monthly averages of the levels of chemicals and bacteria present in the treated wastewater to TCEQ. Additionally, the Dallas Water Department submits the following reports to TCEQ as required by the permits:

- Monthly reports of reclaimed water effluent characteristics.
- Quarterly or annual reports of biomonitoring toxicity test on treated wastewater effluent.
- Annual report of sewage sludge (biosolids) characteristics.

### Methodology

The audit methodology included: (1) interviewing personnel from the Dallas Water Utilities; (2) reviewing departmental written procedures, permits issued by the Texas Commission on Environmental Quality, and the Environmental Protection Agency guidelines on reporting; and, (3) performing various analyses, including reviewing environmental reports and laboratory worksheets. In addition, all five components of *Standards for Internal Control in the Federal Government* were considered.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based upon our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

### Major Contributors to the Report

Zachary Goebel – Auditor

Shino Knowles, CPA – In-Charge Auditor

Anatoli Douditski, MPA, CIA, CFE, ACDA – Engagement Manager

## Appendix B: Management's Response

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Memorandum



CITY OF DALLAS

**DATE:** July 17, 2024  
**TO:** Mark S. Swann – City Auditor  
**SUBJECT:** Response to Audit of Dallas Water Utilities Wastewater Operations' Environmental Reporting

This letter acknowledges the City Manager's Office and Dallas Water Utilities received the *Audit of Dallas Water Utilities Wastewater Operations' Environmental Reporting*.

Dallas Water Utilities proudly serves over 2.6 million people as a local and regional provider of water, wastewater, stormwater, and flood control services. The department recognizes its essential role in providing fundamental water services to area residents and customers.

Dallas Water Utilities is pleased but not surprised that the audit concluded Dallas Water Utilities:

- Timely submits required reports to the Texas Commission on Environmental Quality;
- Accurately submits information to the Texas Commission on Environmental Quality; and
- Designed appropriate internal controls to ensure accurate and timely wastewater and sewage sludge environmental reporting generally functioned as intended.

We appreciate the professionalism and quality of work demonstrated by the City Auditor and his staff throughout this engagement. Dallas Water Utilities will use this experience to continue enhancing department operations.

Sincerely,



Kimberly Bizer-Tobert (Jul 17, 2024 15:28 CDT)

Kimberly Bizer Tobert  
City Manager (I)

C: Jack Ireland, Chief Financial Officer  
Dev Rastogi, Assistant City Manager  
Sarah Standifer, Director, Dallas Water Utilities

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