Audit of Cross-Connection and Backflow Prevention Program

September 26, 2025

Mark S. Swann, City Auditor

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City of Dallas

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Executive Summary

Objective and Scope

The objectives of this audit were to determine whether:

- The Cross-Connection and Backflow Prevention Program is working as intended in the guidelines set out in Dallas City Code Chapter 49, Section 29, and Texas Administrative Code Section 290.44.

- Backflow assembly testers are certified by the Texas Commission on Environmental Quality and registered with the City of Dallas Building Inspection Office.

The scope of this audit included the City's Cross-Connection and Backflow Prevention Program activities from October 1, 2023, to September 30, 2024. Documentation from before the scope period was also reviewed as a part of this audit.

Recommendations

Management should:

- Reconcile system data between the SwiftComply and Accela Civic Platform information systems.

- Strengthen data accuracy and integration.

- Enforce testing compliance.

- Standardize test entry and inspection requirements.

- Enhance oversight of testers and equipment.

- Improve interdepartmental coordination.

Background

Dallas Water Utilities is in charge of the City's Cross-Connection and Backflow Prevention Program, which protects the public water supply from contamination due to backflow and cross-connections. Backflow occurs when water flows in reverse and can introduce pollutants such as chemicals or sewage into the drinking water system. To prevent this, backflow prevention assemblies must be installed at risk locations and tested annually by Texas Commission on Environmental Quality-licensed and City-registered testers using calibrated equipment.

Observed Conditions

The Dallas Water Utilities' SwiftComply information system is incomplete and inconsistent with the Department of Planning and Development's Accela Civic Platform information system (replacement for Posse information system), resulting in numerous potential untracked backflow prevention assembly locations.

Approximately 41 percent of assemblies in SwiftComply are noncompliant with annual testing requirements, and Dallas Water Utilities does not enforce corrective action beyond issuing reminders.

Some backflow testers lacked required documentation, including evidence of annual gauge calibration.

Communication gaps between departments and the absence of formal procedures contribute to data errors and compliance failures.

Objectives and Conclusions

1. Is the backflow prevention program working as intended in the guidelines set out in City Code Chapter 49, Section 29, and Texas Administrative Code Section 290.44?

   Generally, no. While the framework for the program aligns with the City Code and state regulations, enforcement is inconsistent. The Dallas Water Utilities' SwiftComply information system of backflow prevention assemblies is incomplete and sometimes inaccurate. Many testers do not submit test results through SwiftComply as required, and some test forms are accepted by Planning and Development even though they do not originate from SwiftComply. Additionally, annual testing compliance is low, and Dallas Water Utilities does not consistently follow up on overdue or failed inspections, reducing the program's effectiveness in protecting water quality. (See Observation A and Observation B.)

2. Are backflow assembly testers certified by the Texas Commission on Environmental Quality and registered with the City of Dallas Building Inspection Office?

   Generally, yes. All testers who performed backflow assembly tests in Fiscal Year 2024 maintained a current Texas Commission on Environmental Quality certification. However, SwiftComply does not currently validate city registration status when test reports are submitted. As a result, the Texas Commission on Environmental Quality certified but unregistered City testers performed and submitted inspections without detection. A more robust verification and reconciliation process is needed between SwiftComply and the City's registration records. (See Observation C.)

Audit Results

Both *City Council Resolution 88-3428* and Administrative Directive 4-09*, Internal Control,* prescribe policy for the City to establish and maintain an internal control system. The audit observations listed are offered to assist management in fulfilling their internal control responsibilities.

Observation A: Backflow Prevention Assembly Information System

SwiftComply, a backflow prevention assembly information system, is an effective tool used by Dallas Water Utilities to track the location of cross connections and backflow prevention assemblies and to track required annual backflow assembly testing. However, the data in SwiftComply is incomplete and is not always accurate. In particular:

- The count of unique street addresses with backflow assemblies in Posse, an information system used by Planning and Development during the audit period[1] to issue permits for the initial installation and testing of backflow assemblies, does not match the count of unique addresses in the Dallas Water Utilities' SwiftComply information system and shows 5,242 address discrepancies.

- In addition, SwiftComply includes 3,179 assemblies of "unknown" type and 81 locations with no corresponding backflow prevention assemblies. Some of these locations are City of Dallas fire stations, aquatic centers, and swimming pools. According to Dallas Water Utilities, these locations were entered as memo records for information purposes, or in error, or at some point had backflow prevention assemblies, or it is unknown how many assemblies they had.

As a result, there is a risk that defective backflow prevention assemblies are not being detected by Dallas Water Utilities because the department does not have access to Posse and does not have procedures and work instructions to reconcile the differing information between Posse and SwiftComply. According to the Dallas Water Utilities, the effects of an unlikely failure of a backflow assembly will be confined to the premises on which the assembly is located and will not compromise the water system due to the department's vigilance in maintaining a positive water pressure above 35 PSI and continuous hourly monitoring of the pressure and quality of drinking water in the water supply system.

Prior to the audit, Dallas Water Utilities has been working on improving the backflow prevention program, the rate of compliance with annual testing requirement, and the completeness and accuracy of the SwiftComply information system by requiring Backflow Prevention Group inspectors to visit questionable locations and verify the number and location, the status, and type of backflow prevention assemblies.

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[1] In May 2025, Planning and Development discontinued use of the Posse information system and installed Accela Civic Platform.

However, several inconsistent procedures first pointed out in *Backflow Prevention Strategies Evaluation* prepared by Carollo engineering firm in February 2020 have not been corrected and continue to impact the accuracy of SwiftComply, such as:

- Carollo recommended that testers submit backflow prevention assembly test reports for new installations directly to Dallas Water Utilities with a copy provided to Planning and Development. But this approach is not being followed. A review of a random sample of 60 locations in Posse out of 1,786, where a new backflow prevention assembly was installed during the audit period, shows that nine (15 percent) newly installed backflow prevention assembly were inspected by Planning and Development and approved even though backflow prevention assembly testers did not enter the tests into Dallas Water Utilities' SwiftComply information system and did not present SwiftComply test forms to Planning and Development inspectors. This means that in Fiscal Year 2024, about 268 backflow prevention assemblies were installed or repaired circumventing the entry of the test in the SwiftComply information system and preventing Dallas Water Utilities from tracking their compliance with annual testing requirements.

    While the Dallas Water Utilities website directs backflow prevention assembly testers to enter new installation test results into the SwiftComply information system and provide a SwiftComply printout to Planning and Development plumbing inspectors, this directive is not documented in the department's written procedures and has not been shared with Planning and Development's plumbing inspectors who continue to accept test forms that did not originate in the SwiftComply information system.

- Carollo recommended that Dallas Water Utilities and Planning and Development implement a single information system for use in backflow prevention assembly tracking and data management. However, Dallas Water Utilities and Planning and Development continue to use separate information systems without the ability to access and reconcile each other's data related to backflow prevention assembly tracking and data management. Dallas Water Utilities have been using SwiftComply since 2022, and Planning and Development used Posse, which was replaced with Accela Civic Platform in May 2025.

- Carollo recommended an upgrade to a more advanced information system (SwiftComply). According to Dallas Water Utilities, the transfer of backflow assembly prevention data from the legacy information system into SwiftComply was not error-free and added to the challenges with the data accuracy.

Criteria

- ❖ *Texas Administrative Code, Title 30, Part I, Chapter 290, Subchapter D, Rule §290.44* requires initial and annual testing of backflow prevention assemblies by certified testers.

- ❖ *Dallas City Code Section 49-29* grants the Director of Dallas Water Utilities the authority to:

- Require installation or correction of backflow assemblies at the customer's expense.

- Refuse or discontinue water service for non-compliance.

- Inspect backflow prevention assemblies and charge fees for inspections.

❖ *DWU-PRO-001-WQ.BF (Cross-Connection Control Program)* requires testing documentation via SwiftComply, periodic walkthrough inspections, and backflow assembly database maintenance.

❖ Backflow Prevention Strategies Evaluation, Carollo Engineering, February 2020.

❖ Standards for Internal Control in the Federal Government:

Principle 16 – Perform Monitoring Activities

Principle 9 – Identify, Analyze, and Respond to Change

Assessed Risk Rating:

High

We recommend the **Director of Dallas Water Utilities:**

A.1: Develop and implement formal reconciliation written procedures and work instructions for regular periodic reconciliation of SwiftComply and Posse (and its successor system Accela Civic Platform) information system data to identify and correct discrepancies, including:

- Locations with backflow prevention assemblies in the Accela Civic Platform but not in SwiftComply information systems.

- Locations in SwiftComply showing no backflow prevention assemblies.

- Duplicate or erroneous entries.

A.2: Develop and implement a risk-based plan to confirm the existence, condition, and hazard level of backflow prevention assemblies, targeting address discrepancies between Posse (Accela Civic Platform) and SwiftComply, assemblies of "unknown" type, and locations with no backflow prevention assemblies.

We recommend the **Director of Dallas Water Utilities** and the **Director of Planning and Development Department:**

A.3: Develop, implement, and enforce formal test entry and documentation requirements for all backflow prevention assembly testers to:

- Enter new installation and annual test results directly into the SwiftComply information system.

- Provide a SwiftComply information system-generated test form to Planning and Development plumbing inspectors.

- Train both Dallas Water Utilities and Planning and Development staff on these requirements.

- Reject test forms not originating from the SwiftComply information system to enforce compliance.

A.4: Explore options to develop an integrated data management solution to either:

- Implement a single unified information system for backflow prevention assemblies tracking, or

- Develop an application programming interface between SwiftComply and Accela Civic Platform information systems to allow for real-time data sharing and validation.

A.5: Explore options to develop a monitoring dashboard to track discrepancies between permitting records and the backflow prevention database.

Observation B: Annual Inspection Enforcement

A review of Dallas Water Utilities' Cross-Connection and Backflow Control Program documentation and procedures identified instances where required backflow prevention assemblies have not been consistently tested according to City and state regulations. Some customers failed to perform the required annual tests on backflow prevention assemblies. A review of backflow assembly test compliance data in the SwiftComply information system shows that 8,111 out of 19,644 (41 percent) backflow assemblies are not compliant with the annual testing requirement. Additionally, a separate review of a judgmental sample of 100 failed tests in Fiscal Year 2024 shows that of the 100 failed tests:

- 66 assemblies (66 percent) never received a passing re-test.

- For the 34 assemblies (34 percent) that did re-test and pass, the time between the initial failed test and the passing test ranged from 2 to 110 days.

Failure to maintain, test, and report backflow prevention assembly compliance increases the risk of backflow incidents, which could contaminate the public drinking water supply. This could result in health hazards to the community, regulatory violations, potential fines from the Texas Commission on Environmental Quality, and reputational damage to the City of Dallas. Delayed follow-up on failed tests allows potentially faulty or unsafe assemblies to remain in service for extended periods, compromising water system safety. According to the Dallas Water Utilities, the effects of an unlikely failure of a backflow assembly will be confined to the premises on which the assembly is located and will not compromise the water system due to the department's vigilance in maintaining a positive water pressure above 35 PSI and continuous hourly monitoring of the pressure and quality of drinking water in the water supply system.

Dallas City Code Section 49-29 grants the Director of Dallas Water Utilities the authority to enforce the installation or correction of backflow prevention assemblies at the customer's expense and even to refuse or discontinue water service for non-compliance. However, the department's enforcement efforts currently are limited to notification letters of required annual tests and occasional visits to non-compliant customers to remind them of the need to comply with the testing requirement. Dallas Water Utilities does not have formalized procedures to ensure timely follow-up on failed backflow assembly tests or overdue tests.

Criteria

- ❖ *Texas Administrative Code, Title 30, Part I, Chapter 290, Subchapter D, Rule §290.44* requires initial and annual testing of backflow prevention assemblies that protect against health hazards by certified testers.

- ❖ *Dallas City Code Section 49-29* grants the Director of Dallas Water Utilities the authority to:

  - Require installation or correction of backflow prevention assemblies at the customer's expense.

  - Refuse or discontinue water service for non-compliance.

- Inspect backflow prevention assemblies and charge fees for inspections.

❖ *DWU-PRO-001-WQ.BF (Cross-Connection Control Program)* requires testing documentation via SwiftComply, periodic walkthrough inspections, and backflow assembly database maintenance.

❖ Standards for Internal Control in the Federal Government:

  Principle 16 – Perform Monitoring Activities

  Principle 9 – Identify, Analyze, and Respond to Change

Assessed Risk Rating:

High

We recommend the **Director of Dallas Water Utilities:**

B.1: Develop and implement formal procedures for monitoring compliance with annual backflow assembly tests, including escalation steps for non-compliance based on the level of hazard present at a non-complying location.

B.2: Develop and implement formal procedures for a follow-up protocol for failed backflow tests, prioritizing high-hazard locations to ensure that correction and retesting occur promptly.

B.3: Increase proactive education and enforcement efforts to reduce the percentage of assemblies out of compliance with annual testing requirements.

B.4: Leverage the SwiftComply information system or other data management tools to generate automated notifications and track overdue inspections and failed tests systematically.

Observation C: Backflow Prevention Assembly Testers

According to the Texas Administrative Code, Title 30, Chapter 30, Subchapter G, §30.284, all backflow prevention assembly testers must be licensed by the Texas Commission on Environmental Quality and must complete an approved training course, pass a written and practical exam, and keep their license current and in good standing. Testers are also required to register with the Department of Planning and Development and pay an annual registration fee of $120 (City Code Chapter 52, Article 802.1). In addition, the gauges they use in the testing of backflow prevention assemblies must be tested for accuracy annually (Texas Administrative Code Title 30, Chapter 290, specifically § 290.44(h)(4)(B)).

A review of a random sample of 60 backflow prevention assembly tests performed by 38 privately hired testers during the Fiscal Year 2024 shows that:

- All 38 testers held active Texas Commission on Environmental Quality licenses at the time of the test.

- Nine of the 38 testers (24 percent) were not registered with the Department of Planning and Development at the time the backflow prevention assembly tests were conducted.

- One of the 60 (2 percent) backflow prevention assembly tests was performed with a test gauge with no record of calibration.

Non-compliance with the City Code and program procedures that require all backflow testers to be both licensed by Texas Commission on Environmental Quality and registered with the City results in confusion regarding tester registration requirements and loss of registration fee revenue for the City. Calibration ensures that backflow prevention testing results are accurate and reliable, reducing the risk of undetected failures in backflow prevention assemblies and false test results leading to unsafe water conditions.

Dallas Water Utilities does not have direct access to the Planning and Development's backflow prevention tester registry, and there is no shared information system or verification process in place between departments. This limits Dallas Water Utilities's ability to verify City registration status at the time of test report submission.

Criteria

- ❖ *Texas Administrative Code, Title 30, Part I, Chapter 290, Subchapter D, Rule §290.44* requires that backflow prevention testers be conducted by recognized backflow prevention assembly testers, who must hold a current license and meet testing qualifications.

- ❖ *Dallas City Code Chapter 52, Article 310.3 (2.2)* requires the owners of premises on which a backflow prevention device is located to ensure that high health hazard devices are tested at least annually by backflow prevention testers who are registered with the City of Dallas.

❖ *Dallas City Code Chapter 52, Subchapter 8* states that a person may not inspect or test backflow prevention assemblies within the City unless registered as a backflow prevention tester at the Building Inspection Division of the Department of Planning and Development.

❖ *DWU-PRO-001-WQ.BF (Cross-Connection Control Program)* requires all customer assemblies to be tested by private testers registered with the City of Dallas.

❖ Standards for Internal Control in the Federal Government:

Principle 16 – Perform Monitoring Activities

Principle 9 – Identify, Analyze, and Respond to Change

Assessed Risk Rating:

Low

We recommend the **Director of Dallas Water Utilities:**

C.1: Require SwiftComply to include a City of Dallas registration verification step before test report submission acceptance.

C.2: Require all backflow prevention assembly testers to provide valid documentation of annual gauge calibration prior to performing backflow tests. Establish a verification process to ensure that no test reports are accepted unless accompanied by current calibration records, in compliance with Texas Commission on Environmental Quality regulations.

Appendix A: Background and Methodology

Background

Dallas Water Utilities provides wastewater, stormwater, and flood control services to more than 2.6 million people across 27 surrounding communities, covering a 700-square-mile service area. Dallas Water Utilities operates as both a local and regional utility and employs over 1,600 full-time staff.

Program Implementation

The Cross-Connection Control Program is implemented jointly by Dallas Water Utilities (Water Quality Division) and the Department of Planning and Development. Planning and Development is responsible for issuing permits for new backflow prevention assembly installations and conducts initial inspections using Accela Civic Platform information system (replacement for Posse information system). Dallas Water Utilities manages compliance monitoring, annual testing tracking, and tester certification through the SwiftComply database, which was adopted in 2022 to replace older internal systems and modernize compliance oversight.

To perform backflow assembly tests in the City of Dallas, individuals must:

- Hold a Backflow Prevention Assembly Tester license issued by the Texas Commission on Environmental Quality,

- Be registered with the City of Dallas and submit documentation of a valid Texas Commission on Environmental Quality license and annual test gauge calibration records.

Importance of Backflow Prevention

A critical responsibility of Dallas Water Utilities is protecting the City's public water supply from contamination due to backflow, which occurs when water flows in the opposite direction of its intended path. This reverse flow can result from backsiphonage (a drop in pressure in the potable system) or backpressure (increased downstream pressure). If cross-connections are present, i.e. points where potable water connects with non-potable systems, hazardous substances can enter the drinking water supply. According to the Environmental Protection Agency and the American Water Works Association, cross-connections and backflow events have caused numerous public health incidents across the U.S., leading to contamination by pesticides, industrial fluids, biological waste, and untreated water. Such contamination has resulted in illnesses and public health advisories, particularly when backflow assemblies were missing, malfunctioning, or untested. To mitigate these risks, the City of Dallas Cross-Connection and Backflow Control Program requires that backflow prevention assemblies be installed at locations with potential cross-connections and that each assembly be tested annually to ensure it functions properly. See Exhibit 1 on the next page for a count of various types of backflow prevention assemblies currently tracked in SwiftComply:

Exhibit 1:

Count of Backflow Prevention Assemblies by Type as of April 8, 2025

(Teal shaded rows indicate backflow prevention assembly types requiring annual testing.)

Backflow Prevention Assembly Type	Definition	SwiftComply Count	Compliant with Annual Testing Requirement
Reduced Pressure Principle Assembly (RP or RPZA)	A testable mechanical assembly with two independently operating, spring-loaded check valves, and an automatically operating differential pressure relief valve located between them, plus shutoff valves and test cocks. **High hazard** (Health Hazard - Highest Mechanical Protection). Provides superior protection against both backsiphonage and backpressure for health hazard contaminants.	19,176	11,015 (57%)
Reduced Pressure Detector Assembly (RPDA)	An RPZA with a metered bypass assembly that also contains backflow prevention (typically another RPZA) to detect leaks or unauthorized water use, commonly in high-hazard fire sprinkler systems. **High Hazard** (Health Hazard). Protects against both backsiphonage and backpressure, primarily for fire suppression systems where a high hazard exists and leak detection is needed.	464	302 (65 %)
Reduced Pressure Detector Assembly – Type II (RPDA-II)	A specific configuration of an RPDA where the bypass line contains a meter and a single check valve and relief valve, as opposed to a full RPZA in the bypass, but still providing equivalent RP protection. **High hazard** (Health Hazard). Same as RPDA, for high-hazard fire suppression systems with leak detection.	4	1 (25%)
Air Gap (AG)	A physical, unobstructed vertical separation between the lowest point of a potable water outlet and the flood level rim of a fixture or receptacle. It is	20	Annual testing is not required.

Backflow Prevention Assembly Type	Definition	SwiftComply Count	Compliant with Annual Testing Requirement
	the simplest and most reliable method of backflow prevention. It protects against both backsiphonage and backpressure for **all hazard levels**.		
Atmospheric Vacuum Breaker (AVB)**	A non-testable assembly with a check valve and an air inlet valve that opens when supply pressure drops to atmospheric pressure, breaking a vacuum. **High hazard** (against backsiphonage only). Must be installed downstream of any shutoff valves and at least 6-12 inches above the highest point of water use. Not for continuous pressure or backpressure.	3	Annual testing is not required.
Double Check Valve Assembly (DC or DCVA)	A testable mechanical assembly consisting of two independently operating, spring-loaded check valves in a series, with shutoff valves and test cocks. Protects against both backsiphonage and backpressure where the potential contaminant is **not a health hazard.**	15,855	Annual testing is not required.
Double Check Detector Assembly (DCDA)	A DCVA with a metered bypass assembly that also contains backflow prevention (typically another DCVA) to detect leaks or unauthorized water use, commonly in fire sprinkler systems. **Low hazard** (Pollution). Protects against both backsiphonage and backpressure, primarily for fire suppression systems where leak detection is needed and the hazard is low.	301	Annual testing is not required.
Double Check Detector Assembly – Type II (DCDA-II)	A specific configuration of a DCDA where the bypass line contains a meter and a single check valve (testable), as opposed to a full DCVA in the bypass. **Low hazard** (Pollution). Same as DCDA, primarily for fire suppression systems with low hazard and leak detection.	39	Annual testing is not required.

Backflow Prevention Assembly Type	Definition	SwiftComply Count	Compliant with Annual Testing Requirement
Pressure Vacuum Breaker (PVB)	A testable assembly with a spring-loaded check valve and a spring-loaded air inlet valve, designed for use under continuous pressure. Includes shutoff valves and test cocks. **High hazard** (against backsiphonage only). Must be installed at least 12 inches above the highest point of water use. Does not protect against backpressure.	138	Annual testing is not required.
Spill-Resistant Pressure Vacuum Breaker (SVB)	A variation of the PVB designed to minimize water spillage upon operation, typically through an internal sensing passage or diaphragm that keeps the air inlet sealed until conditions require opening. Often has only one test cock **High Hazard** (against backsiphonage only). Functions similarly to a PVB; does not protect against backpressure. Preferred for indoor installations due to reduced discharge.	228	Annual testing is not required.
Unknown	Dallas Water Utilities does not have information about the type of assembly at a location.	3,179	Unknown
Totals:		39,407	N/A
Annual Inspections Required		**19,644**	**11,321 (58%)**

Source: Dallas Water Utilities.

Methodology

The audit methodology included: (1) interviewing personnel from Dallas Water Utilities and Planning and Development departments; (2) reviewing policies and procedures, the *Texas Administrative Code*, Texas Commission on Environmental Quality regulations, *Dallas City Code*, and best practices; and, (3) performing various analyses, including data analysis of Posse and SwiftComply. 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

Brandon Boykin, MBA – Auditor
Anatoli Douditski, MPA, CIA, CFE, ACDA – Engagement Manager

Appendix B: Risk Matrix

The Office of the City Auditor uses a Risk Matrix (see Exhibit 2) to rate the severity of audit observations and assign a corresponding risk rating. Risk is rated as High, Moderate, or Low based on the auditors' evaluation of the impact and likelihood of the effects caused by internal control deficiencies.

Exhibit 2:

Risk Matrix

Risk	High	Moderate	Low
Financial: The financial impact is or is likely to be...	Greater than $50,000	Between $10,000 to $50,000	Less than $10,000
Operational: How severe are control deficiencies?	Operations have failed	Operations may fail	Operations are not likely to fail
Compliance: How severe are instances of non-compliance?	Not complying and has been or will be penalized	Not complying and is likely to be penalized	Complying or will not be penalized
Public: How severe is the reputational damage, loss of public trust, or negative media coverage?	Will immediately receive coverage	May receive coverage	Will receive no coverage
Equity: Will there be a disproportionate impact on a segment of the population?	A significant negative effect	A moderate negative effect	No negative effect

Source: Office of the City Auditor.

Appendix C: Management's Response

Memorandum

CITY OF DALLAS

DATE: September 17, 2025

TO: Mark S. Swann – City Auditor

SUBJECT: Response to the Audit of Cross-Connection and Backflow Prevention Program

This letter acknowledges the City Manager's Office received the *Audit of Cross-Connection and Backflow Prevention Program* and submitted responses to the recommendations in consultation with Dallas Water Utilities (DWU) and the Department of Planning and Development (PDV).

DWU is subject to a comprehensive compliance investigation by the Texas Commission on Environmental Quality (TCEQ) every three years. The purpose of the investigation is to assess compliance with drinking water regulations and to identify performance limiting factors that could affect water quality. TCEQ has reaffirmed DWU's status as a "Superior" rated water system – the highest rating awarded in Texas. This recognition reflects DWU's continued commitment to regulatory compliance and the delivery of safe, clean drinking water.

While DWU remains confident in the quality of water it provides, recent system transitions have highlighted opportunities for improvement – particularly in data management and coordination. In November 2022, DWU migrated to the SwiftComply database to enhance our cross connection and backflow prevention program. More recently, in May 2025, PDV transitioned to the DallasNow platform. We appreciate the auditor's work to identify areas where we can better leverage these systems and enhance our processes to more completely mitigate any potential risks associated with backflow.

We feel strongly that the auditor's recommendations for Observations A and B are low or moderate risk. DWU is committed to maintaining TCEQ's minimum pressure requirements of 35 pounds per square inch (PSI) under normal operating conditions and 20 PSI under emergency conditions. This is accomplished through a robust and modern system that continuously monitors hundreds of various sensors throughout the water supply system. The system is actively monitored 24 hours a day, and rapid incident response teams are available to respond immediately to any concerns, including drops in water pressure. This is supplemented by multiple layers of mechanical (e.g., pumps and valves), engineering (e.g., system design, hydraulics, and equipment redundancy), and chemical (e.g., chlorine) safeguards that ensure a safe water system. In addition, backflow prevention assemblies serve as supplemental protection for private premise plumbing and supports the integrity of the distribution system in conjunction with the primary controls listed above.

"Service First, Now!"
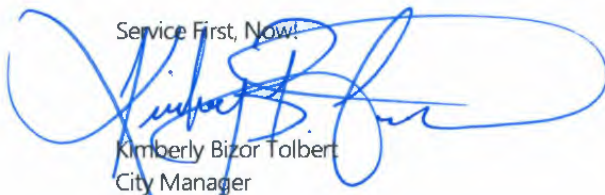Connect – Collaborate – Communicate

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Additionally, City management would like to clarify that DWU has been actively working on evaluating and integrating the Carollo Group's recommendations into its operations as part of DWU's goal of continuous improvement and enhancing operations. DWU took a risk-based approach, and to date, has completed six recommendations and continues to work on three recommendations.

In summary, DWU and PDV agree to implement each of the auditor's recommendations.

Please let me know if you need additional information.

Service First, Now!

Kimberly Bizor Tolbert
City Manager

C: Jack Ireland, Chief Financial Officer
     Dev Rastogi, Assistant City Manager
     Robin Bentley, Assistant City Manager
     Sarah Standifer, Director, Dallas Water Utilities
     Emily Liu, Director, Department of Planning and Development

Assessed Risk Rating	Recommendations	Concurrence and Action Plans		Implementation Date	Follow-Up/ Maturity Date
High	We recommend the **Director of Dallas Water Utilities:**				
	A.1: Develop and implement formal reconciliation written procedures and work instructions for regular periodic reconciliation of SwiftComply and Posse (and its successor system Accela Civic Platform) information system data to identify and correct discrepancies, including: • Locations with backflow prevention assemblies in the Accela Civic Platform but not in SwiftComply information systems. • Locations in SwiftComply showing no backflow prevention assemblies. • Duplicate or erroneous entries.	Agree	Working with Planning and Development (PDV), Dallas Water Utilities (DWU) will develop and implement written procedures and work instructions for performing an annual reconciliation between the SwiftComply and Accela Civic Platform systems. This process will identify any discrepancies or erroneous entries so that they may be corrected. It should be noted that this process will not result in the two systems having identical location information, as the two systems primarily serve different departments with unique needs. For example, several records have been intentionally retained primarily to support compliance with TCEQ audit requirements. DWU will identify and notate discrepancies, similar to a reconciling item.	6/30/2026	12/31/2026
	A.2: Develop and implement a risk-based plan to confirm the existence, condition, and hazard level of backflow prevention assemblies, targeting address discrepancies between Posse (Accela Civic Platform) and SwiftComply, assemblies of "unknown' type, and	Agree	Working with PDV, DWU will obtain all permit requests involving backflow assemblies from Accela and reconcile the discrepancies by developing and implementing a risk-based plan and prioritization based on hazard level, following TCEQ guidance of hazard types. DWU is currently investigating anomalies in SwiftComply that resulted from data	6/30/2026	12/31/2026

Assessed Risk Rating	Recommendations		Concurrence and Action Plans	Implementation Date	Follow-Up/ Maturity Date
	locations with no backflow prevention assemblies.		migration from the previous system. DWU is initially focusing on locations with unknown assembly types. Through this process, DWU will reduce the risk associated with this recommendation. It should be noted that the implementation date reflects the development of the plan and several months of activity to demonstrate progress against the plan. However, at this time, there are too many unknowns to estimate the completion of the plan.		
	B.1: Develop and implement formal procedures for monitoring compliance with annual backflow assembly tests, including escalation steps for non-compliance based on the level of hazard present at a non-complying location.	Agree	DWU will develop procedures documenting our efforts to monitor annual backflow testing compliance. In addition, DWU's procedures will include a flexible, but consistent escalation process for non-compliance based on hazard levels.	03/31/2027	6/30/2027
	B.2: Develop and implement formal procedures for a follow-up protocol for failed backflow tests, prioritizing high-hazard locations to ensure that correction and retesting occur promptly.	Agree	DWU recognizes the importance of following up on failed tests. DWU is actively working with SwiftComply on a solution. The new process will be documented in a formal procedure.	6/30/2026	12/31/2026
	B.3: Increase proactive education and enforcement	Agree	DWU will continue to enhance its current cross connection control program	6/30/2026	12/31/2026

Assessed Risk Rating	Recommendations		Concurrence and Action Plans	Implementation Date	Follow-Up/ Maturity Date
	efforts to reduce the percentage of assemblies out of compliance with annual testing requirements.		education and strengthen enforcement to improve compliance of the backflow program.		
	B.4: Leverage the SwiftComply information system or other data management tools to generate automated notifications and track overdue inspections and failed tests systematically.	Agree	DWU will leverage SwiftComply by implementing an automated notification process to notify customers of out-of-compliance assemblies and failed assemblies. In addition, DWU will leverage this data to track compliance.	6/30/2026	12/31/2026
Low	**C.1:** Require SwiftComply to include a City of Dallas registration verification step before test report submission acceptance.	Agree	DWU requires that testers to be licensed by the Texas Commission on Environmental Quality before accepting their reports. DWU does not believe it is feasible for SwiftComply, an off-the-shelf software program, to be modified to verify that testers have registered with the City. DWU will work with the City Attorney's to determine if the City Code requires testers to be registered with the City and, if so, will ask the City Council to reevaluate this requirement. If the City Code requires testers to be registered and the City Council affirms that it is their desire, DWU will develop procedures to implement the recommendation or otherwise mitigate	12/31/2026	6/30/2027

Assessed Risk Rating	Recommendations		Concurrence and Action Plans	Implementation Date	Follow-Up/ Maturity Date
			the risk that DWU accepts submissions from testers, not registered with the City.		
	C.2: Require all backflow prevention assembly testers to provide valid documentation of annual gauge calibration prior to performing backflow tests. Establish a verification process to ensure that no test reports are accepted unless accompanied by current calibration records, in compliance with Texas Commission on Environmental Quality regulations.	Agree	All testers are required to provide documentation of annual gauge calibration. DWU will explore options with the software vendor to ensure test reports are accepted only with valid calibration records.	6/30/2026	12/31/2026
	We recommend the **Director of Dallas Water Utilities** and the **Director of Planning and Development Department:**				
	A.3: Develop, implement, and enforce formal test entry and documentation requirements for all backflow prevention assembly testers to: • Enter new installation and annual test results directly into the SwiftComply information system. • Provide a SwiftComply information system- generated test form to	Agree	DWU will work with PDV to develop a formal process to ensure testers enter new installations and annual test results directly into SwiftComply. This process will instruct PDV staff not to accept any test forms not originating from SwiftComply, but instead inform testers on how to submit a test to DWU via the SwiftComply system.	6/30/2026	12/31/2026

Assessed Risk Rating	Recommendations		Concurrence and Action Plans	Implementation Date	Follow-Up/ Maturity Date
	Planning and Development plumbing inspectors. • Train both Dallas Water Utilities and Planning and Development staff on these requirements. • Reject test forms not originating from the SwiftComply information system to enforce compliance.		Lastly, DWU and PDV will ensure applicable staff are periodically trained on this process.		
	A.4: Explore options to develop an integrated data management solution to either: • Implement a single unified information system for backflow prevention assemblies tracking, or • Develop an application programming interface between SwiftComply and Accela Civic Platform information systems to allow for real-time data sharing and validation.	Agree	DWU and PDV will research options to develop an integrated data management solution. If a feasible solution is identified, DWU and PDV will advocate for the solution.	9/30/2026	12/31/2026
	A.5: Explore options to develop a monitoring dashboard to track discrepancies between	Agree	DWU and PDV will explore the feasibility of developing a monitoring dashboard to track discrepancies between permitting	9/30/2026	12/31/2026

Assessed Risk Rating	Recommendations	Concurrence and Action Plans	Implementation Date	Follow-Up/ Maturity Date
	permitting records and the backflow prevention database.	records and the backflow prevention database.		