

Trinity River Authority Contract Audit July 2018

City Auditor, Lori Brooks Jaquess, CPA, CIA, CGAP, CRMA
Assistant City Auditor, Susan Edwards, CIA, CFE, CICA
Internal Auditor, Lee Hagelstein, CGAP



City Auditor's Office

July 10, 2018

Honorable Mayor and Members of the City Council:

The City Auditor's Office has completed the Trinity River Authority Contract Audit. The purpose of the audit was to review and assess contract requirements and compliance.

Management's response to our audit findings and recommendations, as well as target implementation dates and responsibility, is included following the report.

We would like to thank staff from the Water Utilities Department for their full cooperation and assistance during the audit.

Lori Brooks Jaquess

Lori Brooks Jaquess, CPA, CIA, CGAP, CRMA
City Auditor

c: Trey Yelverton, City Manager
Jim Parajon, Deputy City Manager
Gilbert Perales, Deputy City Manager
Jennifer Wichmann, Acting Deputy City Manager
Walter Pishkur, Director of Water Utilities

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Executive Summary

The City Auditor's Office has completed the Trinity River Authority Contract Audit. The performance audit was conducted 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 on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective. The audit objective was to review and assess contract requirements and compliance.

The City Auditor's Office noted strengths in the following areas:

- The City of Arlington and the Trinity River Authority are complying with contract requirements
- The Water Utilities Department is exercising due diligence in preparing the annual wastewater flow estimates
- The Trinity River Authority's annual billings and year-end settle-ups are calculated accurately based on the City's estimated and actual wastewater flow and the Trinity River Authority's estimated and actual expenditures

We noted potential opportunities for improvement in the following areas:

- Documenting methodology for determining the annual wastewater flow estimates
- Completing monitoring activities allowed by the contract
- Increasing oversight and engagement with the Trinity River Authority and other contracting parties

Details of audit findings, conclusions and recommendations are included in the following report.

Audit Scope and Methodology

The audit was conducted in accordance with generally accepted government auditing standards. The following methodology was used in completing the audit.

- Interviewed pertinent City and Trinity River Authority personnel
- Reviewed and analyzed relevant documentation maintained by City personnel
- Reviewed the Trinity River Authority Contract
- Performed recalculations of the wastewater usage estimates, annual billings and year-end settle-ups
- Reviewed the City's wire transfer process for sending monthly payments
- Ensured that payments to the Trinity River Authority were properly recorded in the Lawson financial system
- Ensured that payments from other cities (Mansfield, Kennedale, Pantego, Dalworthington Gardens) were properly recorded in the Lawson financial system
- Reviewed the Trinity River Authority's Board of Director minutes
- Reviewed the Trinity River Authority's annual budget documents

Background

The Trinity River Authority (The Authority) was created in 1955 by the State of Texas (through the passage of House Bill 20) to form a conservation and reclamation district. The Authority is comprised of 17 counties reaching from the Dallas/Fort Worth area down to the Trinity Bay at the Gulf of Mexico. The Authority consists of all of the territory of Dallas, Tarrant, Ellis, Navarro and Chambers counties, as well as portions of Kaufman, Henderson, Freestone, Anderson, Leon, Houston, Madison, Trinity, Walker, Polk, San Jacinto and Liberty counties.

According to H.B. 20, all powers of the Authority are exercised by the Board of Directors. The Board consists of 25 members appointed by the Governor and approved by the Senate. The Board of Directors includes four directors from Dallas County, three from Tarrant County, one from each of the other 15 counties, and three At-Large directors. To be appointed a director, an individual must reside and own taxable property within the area from which he/she is appointed. Directors serve for a term of 6 years, with a portion of the directors being eligible for reappointment or replacement every 2 years. An officer or employee of a county or city is not eligible to serve as a director.

The Authority was given the power to construct, own and operate sewage gathering, transmission and disposal services, to charge for such service, and to make relative contracts with municipalities and others. To fund the expense of constructing permanent improvements, including engineering expenses, the Authority may issue negotiable bonds secured by ad valorem taxes, pledge of net revenues, or both.

Early in the history of the Authority, there was a need to establish a regional wastewater system in the Upper Trinity River Basin, to provide facilities to adequately receive, transport, treat and dispose of

wastewater in the area. At that time, the City of Arlington owned, operated and maintained its own waterworks and sanitary sewer systems. The City of Arlington determined they could achieve efficiencies of costs and operations by utilizing the Authority's system to discharge its wastewater. In October 1973, the City of Arlington entered into a contact with the Trinity River Authority and became a part of the Central Regional Wastewater System (CRWS).

The CRWS is a large system that serves all or a part of 21 Contracting Parties and according to the Authority's website, it serves approximately 1.2 million people in the Dallas/Fort Worth area. The system includes a treatment plant located in western Dallas and over 200 miles of collection system pipeline. According to their website, the system can provide complete treatment services for monthly average flows of more than 123 million gallons per day (MGD) and can handle daily maximum flows of 162 MGD treatment capacity. The system removes 99% of conventional pollutants from raw wastewater. In addition, it can process 232 dry tons of sludge daily.

Payments made under Arlington's contract and similar contracts with other Contracting Parties (Additional Contracting Parties) are the only source available to the Authority to provide its annual revenue requirement for the CRWS. The annual revenue requirement is defined as an amount sufficient to pay for the following:

- all operations and maintenance expenses
- principal and interest on outstanding bonds
- special or reserve funds required by the Bond Resolution
- any deficiency in funds or accounts required to be accumulated and maintained by the Bond Resolution

Annually, the City pays a share of the Authority's CRWS annual requirement based on its estimated contributed wastewater flow to the System. Over the past few years, the City's share has been approximately 27%. The Authority's CRWS annual requirement for FY17 was \$120.7 million, and the City's share was about \$33 million. If the Authority should start providing service to Additional Contracting Parties during the year, the annual payment would be re-determined. The annual requirement would also be recalculated if there were additions, enlargements or improvements made to the System; any unusual or extraordinary expenditures for operations and maintenance; and/or the City's actual contributing flow to the System was substantially different than that estimated.

Each year the Arlington City Council appoints one of its members or a representative City staff member as a voting member of the Authority's Advisory Committee. This committee consists of one voting representative from each Contracting Party. The Authority's Board of Directors also appoints one of its Dallas County Directors and one of its Tarrant County Directors to serve as non-voting members of the Advisory Committee each year. The Advisory Committee is responsible for consulting with and advising the Authority, through its General Manager, regarding matters pertaining to the System. These include:

- Future plans for expansion
- Methods for improved service
- Inclusion of Additional Contracting Parties

- The proposed budget, prior to submission by the Authority's General Manager to the Board of Directors
- Review of the annual report and annual audit
- And all other matters related to its management, operation and maintenance

At least 40 days prior to the beginning of the fiscal year, the Authority is required to prepare a tentative budget to be filed with each Contracting Party. If they do not receive any protest or request for a hearing from one of the contracting parties within 10 days, then the tentative budget, when adopted by the Board of Directors, will become the Annual Budget for the ensuing fiscal year.

If, however, they do receive a protest or request for a hearing, the Authority must set a date and time for a hearing before the Advisory Committee and notify all Contracting Parties in writing. The Advisory Committee considers the testimony and information during the hearing and reports the findings to the Board of Directors. The Board of Directors may then make amendments based on this information or adopt the tentative budget as is.

The adopted annual budget may be amended during the year for transfers between expenditure accounts, provided there are no changes in the total budget. Any amendments must be filed immediately with all Contracting Parties.

The City's contract with the Authority will continue in force and effect from the effective date (October 10, 1973) for a period of 50 years and will continue in effect thereafter until any outstanding bonds (or any bonds issued to refund same), if any, have been paid in full. As such, it is essentially a never-ending contract.

Audit Results

Payments made by the Contracting Parties are the only revenue source available to the Authority to fund their capital and operating expenditures. As a contracting party, the City of Arlington pays its proportionate share of the cost of the CRWS (based on the City's estimate and the total system estimate of wastewater flows). As noted, over the past 5 years, Arlington's proportionate share of the Authority's CRWS expenditures has been around 27%. The City's annual payment to the Authority has increased from \$28.6 million in FY14 to \$35.7 million in FY18.

Each year the City estimates its wastewater flows for the ensuing year. It is important to note that in determining estimated flows, the City must consider projected flow by other cities (i.e. Mansfield, Kennedale, Pantego and Dalworthington Gardens) that use Arlington's system to dispose of their wastewater. The City of Arlington is billed for these cities' usage and is then reimbursed by each city individually. In reviewing annual estimated wastewater flows, Internal Audit noted the City has been inconsistent with the methodology used. The basis for the estimate is generally an average of recent actual annual flows (usually 3-5 years) but, at times, the City adds a small percentage to arrive at the estimate provided to the Authority. As such, it appears a "common sense" approach is used to help ensure the annual estimate is reasonable. However, there is no documentation as to why a particular methodology is used. Proper documentation would provide a basis for the calculations used in the estimates, should questions arise in the future. This will be discussed further in the Detailed Audit Findings section of this report.

The Authority uses these flow estimates, as well as the estimates provided by the other Contracting Parties, to determine the City's annual proportionate requirement and monthly billing. At year-end (November 30), the Authority reviews its actual expenditures versus budgeted expenditures, while reviewing actual versus estimated flow by all participating parties. Each party's proportionate share of the Authority's costs is adjusted accordingly, and either invoiced for an additional amount or reimbursed for excess amounts paid. Although typically only a year-end settle-up is prepared, in FY17, the Authority made a mid-year adjustment (Arlington's monthly payment was reduced by \$235,000 each month for August - November) due to higher than projected actual flows within the system.

To ensure the City's estimates are reasonable, reports prepared by Water Utilities staff for estimating annual flows were reviewed and compared to reports of actual flows obtained from the Authority. The City's wastewater flow estimates prepared for FY15 through FY18 were reviewed to determine reasonableness and no exceptions were noted. The City's annual estimates prepared for FY15 through FY18 were compared to the Authority's billings for FY15 - FY18 and the year-end settle-ups for FY15 through FY16 to ensure the Authority's billing accuracy. No discrepancies were noted.

The Authority's annual budgets, its revenue requirements and the City's proportionate share, and their year-end settle-ups were reviewed. Based on the review, it appears the Authority's current process for estimating its annual expenditures, revenue requirements and determining the Contracting Parties' annual obligation is effective. Below is a schedule of the Authority's CRWS budget versus actual revenues and expenditures for FY14 through FY17. Overall, the variances between the budgeted and actual expenditures were minimal. Also, the Authority's revenue requirements for each year were

commensurate with its budgeted expenditures. For FY15, there was a year-end adjustment (reimbursement) to the City of about \$1 million (a difference of approximately 3.6% from the initial requirement). For FY16, there was a year-end adjustment (invoice to the City) for about \$152,000 (a difference of approximately .5% from the initial requirement).

	2014 Budget	2014 Actual	2015 Budget	2015 Actual	2016 Budget	2016 Actual	2017 Budget*
Total Contract Revenue	\$104,449,274	\$100,982,591	\$106,893,695	\$106,845,820	\$110,791,053	\$111,939,874	\$120,713,954
Arlington's portion of requirement	\$ 28,647,307	\$ 28,184,681	\$ 29,137,082	\$ 28,097,789	\$ 30,002,217	\$ 30,788,594	\$ 33,196,341
Expenditures	\$104,457,842	\$102,857,357	\$108,167,844	\$111,271,652	\$111,380,120	\$114,848,496	\$119,738,428

*2017 actual numbers were not available at the end of audit fieldwork.

The minutes from the Board of Director meetings were reviewed for FY16 and FY17 to identify the types of expenditures approved for the CRWS. The types of expenditures appeared to be ordinary for this organization (i.e. construction, engineering services, personnel costs, equipment/vehicles, etc.).

Contract content, including pertinent requirements, responsibilities and rights were reviewed. According to the contract, the City has the authority to request specific duties to be performed by the Authority. Those duties include:

- City shall have access to metering equipment at all reasonable times for inspection and examination
- If requested by the City, the Authority shall read, calibrate and adjust meters in the presence of a City representative
- All readings of meters will be entered upon proper books of record maintained by the Authority. Upon written request, the City may have access to those records during reasonable hours
- Not more than three times each year, the Authority shall calibrate the meters, if requested in writing by the City, in the presence of the City representative. Parties shall jointly observe any adjustments made

Based on discussions with Water Utilities staff, it does not appear City personnel are performing or requesting the above-mentioned duties on a regular basis to monitor the Authority's operations. This is discussed further in the Detailed Audit Findings section of this report.

In addition to the monthly payment required under this contract, other transactions related to the Authority contract are processed through the Lawson financial system as described below:

- Payments to the Authority for over-strength surcharges – this occurs when a transmission has concentrations in excess of normal wastewater limits, as established in the contract for

biochemical oxygen demand (BOD) and suspended solids (SS). Monthly, the Authority performs a 24-hour composite test on transmissions from each of the City's Points-of-Entry. If the concentration is too high, the Authority sends the City of Arlington an invoice for these charges. The responsible commercial Water Utilities customers reimburse the City for these charges through their monthly water bill (Class Rate Billing for commercial customers).

- Payments from other Cities - there are four cities that utilize the City of Arlington's pipeline system to dispose of their wastewater (Mansfield, Kennedale, Pantego and Dalworthington Gardens). Arlington is billed (as part of the annual requirement) by the Authority for their wastewater flow each month. The flow from these cities is metered separately, and the cities reimburse the City of Arlington monthly for their wastewater contribution.

A sample of over-strength surcharges and receipts from other cities was tested for accuracy. No exceptions were noted.

Detailed Audit Findings

City Monitoring Activities Allowed by the Contract

The City of Arlington does not generally perform periodic monitoring activities allowed by the contract. Several monitoring activities are allowed or may be requested by the City per the contract. Those include:

- The City may have access to metering equipment at all reasonable times for inspection and examination
- The City may request reading, calibration and adjustment of meters by the Authority in the presence of a City representative
- The contract provides that readings of all meters by the Authority are entered upon proper books and records, which may be reviewed by a City representative
- The contract provides that the Authority shall re-calibrate the meters in the presence of a City representative and shall jointly observe any adjustments made

According to Water Utilities personnel, they are not performing any of the monitoring processes listed above on a regular basis. Regarding the above third bullet, Water Utilities does receive a monthly average flow report for each point-of-entry.

Taking advantage of these allowed monitoring activities will improve confidence that accurate information is being obtained from the Authority, operations are adequately controlled, and equipment is properly maintained.

Risks related to the City's lack of monitoring include:

- Inaccurate meter readings resulting in overpayments/underpayments and inaccurate flow estimates for future years
- Errors in calibrating meters resulting in inaccurate meter readings
- Meters not operating effectively
- Improper or inaccurate recording of meter readings into record books

Recommendation:

1. The City Auditor's Office recommends the Director of Water Utilities establish requirements for staff to exercise the City's rights to monitor the Authority's activities, as allowed by the contract.

Consistent Flow Estimate Methodology

The City of Arlington does not use a consistent methodology for estimating annual wastewater flows.

As described earlier in the report, the City of Arlington Water Utilities staff prepare an estimate of wastewater flows for the upcoming year. This estimate (measured in MGD - million gallons per day)

is communicated to the Authority for determining Arlington's share of the Authority's annual revenue requirement. The following are examples of calculations/methodology used in recent years:

- FY15 - based on a 4-year average of actual flows
- FY16 - based on a 3-year average of actual flows plus .2%
- FY17 - based on a 5-year average of actual flows
- FY18 - based on a 5-year average of actual flows plus .5%

Ideally, an established methodology should be documented in a procedures manual, and annual flow estimates should be calculated in a consistent manner. However, if not practical due to unusual circumstances or events, evidence should be maintained documenting the methodology used and the reason(s). This documentation should be useful when questions arise about the calculations. Additionally, the documentation will be useful to new, responsible staff in the event of turnover.

Internal Audit notes that estimating the amount of wastewater flow for the entire city population is subjective. Even when using actual historical flow measurements as a basis, it is difficult to accurately estimate future usage. However, inaccurate calculations could result in exaggerated or insufficient monthly payments and excessive year-end adjustments.

Recommendation:

2. The City Auditor's Office recommends the Director of Water Utilities include a preferred methodology for calculating wastewater flows in written procedures and require that alternate methodologies/calculations be adequately documented for justification and future reference.

Inspection of Financial and Operational Books and Records

According to Authority representatives, the contract between the City and the Authority allows the City to review the Authority's relevant books and records to ensure that financial and/or operational processes are properly controlled. The City staff does not periodically perform inspections of either financial or operational books and records of the Authority.

The Authority has an internal audit function. The audit reports are not currently posted on their website or provided to the public; however, they may be obtained via an open records request. As part of normal business operations, the internal audit reports are not requested and obtained by the City to gain an understanding of any potential internal process improvement reviews and recommendations.

The City of Arlington is the largest contributor to the CRWS, providing nearly 30% of the System's revenues. Although the City has representation on the Authority's Advisory Committee, the Board of Directors does not include an Arlington citizen. As noted in the background section of this report, the Advisory Committee may present budget or operational concerns/issues to the Board for consideration in finalizing the annual budget. The Board may or may not make any adjustments as a result. The presence of an Arlington citizen on the Board may be helpful in ensuring the City's concerns are heard and considered when significant, relevant financial investments and other decisions are being considered by the Authority.

Additionally, the City of Arlington is one of 21 contracting parties in the CRWS. Each of these cities and their citizens are affected by the Authority's operational and financial decisions. Aside from the Advisory Committee role, leaders of these cities should have an effective mechanism for open discussion and analysis of the Authority's proposed and ongoing activities that affect their respective budgets and citizen's utility costs. The results of these discussions should offer direction to the Advisory Committee members, who have a responsibility to question decisions made by the Authority. A well-organized group with collective similar concerns may be effective in initiating needed change or desired direction.

Recommendations:

3. The City Auditor's Office recommends the City Manager request staff to perform periodic inspection of the financial and operational books and records of the Authority, as allowed by the contract.
4. The City Auditor's Office recommends the City Manager encourage the Advisory Committee member or the Water Utilities Director to request copies of any internal audit reports prepared by the Authority's Internal Audit function.
5. The City Auditor's Office recommends the City Manager consider establishing a mechanism (i.e. group or consortium) for recurring discussion and analysis among the City leaders of the contracting parties, regarding significant financial and operational investments, activities, and other decisions of the Authority.
6. The City Auditor's Office recommends the City Manager consider initiating dialogue with appropriate elected officials regarding the lack of an Arlington citizen on the Authority's Board of Directors.

**CITY OF ARLINGTON
TRINITY RIVER AUTHORITY CONTRACT AUDIT
AUDIT RECOMMENDATIONS AND MANAGEMENT RESPONSE**

AUDIT RECOMMENDATION	CONCUR/DO NOT CONCUR	MANAGEMENT'S RESPONSE	RESPONSIBLE PARTY	DUE DATE
1. <i>The City Auditor's Office recommends the Director of Water Utilities establish requirements for staff to exercise the City's rights to monitor the Authority's activities, as allowed by the contract.</i>	CONCUR	AWU will establish monitoring procedures. AWU has already implemented a dual sampling procedure for all periodical sample collections.	Joe Gildersleeve	7/1/18
2. <i>The City Auditor's Office recommends the Director of Water Utilities include a preferred methodology for calculating wastewater flows in written procedures and require that alternate methodologies/calculations be adequately documented for justification and future reference.</i>	CONCUR	AWU will establish a base methodology which will be used and only adjusted for known changes in conditions.	Craig Cummings	9/1/18
3. <i>The City Auditor's Office recommends the City Manager request staff to perform periodic inspection of the financial and operational books and records of the Authority, as allowed by the contract.</i>	CONCUR	AWU will schedule periodic reviews.	Craig Cummings	1/1/19
4. <i>The City Auditor's Office recommends the City Manager encourage the Advisory Committee member or the Water Utilities Director to request copies of any internal audit reports prepared by the Authority's Internal Audit function.</i>	CONCUR	AWU will periodically request audit reports prepared by the Authority's Internal Audit function.	Craig Cummings	7/1/18

AUDIT RECOMMENDATION	CONCUR/DO NOT CONCUR	MANAGEMENT'S RESPONSE	RESPONSIBLE PARTY	DUE DATE
<p>5. <i>The City Auditor's Office recommends the City Manager consider establishing a mechanism (i.e. group or consortium) for recurring discussion and analysis among the City leaders of the contracting parties, regarding significant financial and operational investments, activities, and other decisions of the Authority.</i></p>	<p>CONCUR</p>	<p>Staff will seek interest for appropriate discussions and analysis with contracting parties.</p>	<p>Trey Yelverton</p>	<p>5/1/19</p>
<p>6. <i>The City Auditor's Office recommends the City Manager consider initiating dialogue with appropriate elected officials regarding the lack of an Arlington citizen on the Authority's Board of Directors.</i></p>	<p>CONCUR</p>	<p>Legislative staff will coordinate to seek Arlington representation.</p>	<p>Jennifer Wichmann</p>	<p>5/31/19</p>