



Tree Mitigation Fund Audit

January 30, 2026

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The Tree Mitigation Fund Audit was conducted as part of the Department of Internal Audit's Fiscal Year 2024 Annual Audit Plan.

Audit Objective

The objective of this audit was to determine the adequacy of controls in place to ensure the City collects tree mitigation fees as required.

Audit Scope

Our audit included a review of tree mitigation activity for the period October 1, 2022, through March 31, 2024.

Activity beyond this period was reviewed as deemed necessary.

Opportunity for Improvement

Procedures to establish more accountability for tree mitigation fees

Consistent guidance for tree mitigation fees in private and public land

Executive Summary

As part of the Fiscal Year 2024 Annual Audit Plan, the Department of Internal Audit conducted a Tree Mitigation Fund Audit. To achieve our audit objective, we performed observations of the City of Fort Worth's tree mitigation process, reviewed tree mitigation records, and selected a random sample of urban and forestry permits to test for accurate assessment and collection of tree mitigation fees.

Internal Audit concluded that the City has processes in place to ensure the City's tree canopy is preserved. Furthermore, both the Urban Forestry Section of the Development Services Department (DSD) and the Forestry Section of the Park and Recreation Department (PARD) enforced ordinances aimed at protecting tree canopies and significant trees within the city. Based on work performed, the City has controls in place to ensure tree mitigation fees are assessed and collected as required. For example, forestry permits are a pre-requisite to other development permits such as grading and building.

Internal Audit noted that the PARD's current manual process does not maximize accountability. For example, manually-numbered invoices were not included within PARD's tree mitigation logs to help ensure accountability (e.g., reconciliation to recorded mitigation fees). Additionally, neither customer receipts nor permits were numbered. We also concluded that City Code guidance did not specifically address tree mitigation fees related to trees on public land.

Internal Audit identified one error that resulted in an overpayment to the City. The overpayment, which was refunded to the customer, was due to a customer tree misclassification. Internal Audit did not consider the miscalculation/overpayment a reportable finding, but deemed it necessary to mention.

Internal Audit also noted that due to limited staffing, segregation of duties may be precluded within the PARD's Forestry Section. However, since Internal Audit did not detect inappropriate activity and recognized management's ability to implement other verification functions (i.e., compensating controls), we did not consider this a reportable finding.

Our audit findings are discussed in further detail within the [Detailed Audit Findings](#) section of this report.

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Background

The City’s goal is to achieve 30% tree canopy coverage (square footage of trees within the city) citywide and promote a multi-aged urban forest. The City therefore requires tree preservation and protection of diverse, healthy, and significant trees. To help achieve this goal and ensure tree mitigation fees are properly assessed and collected, responsibilities have been assigned to the Park and Recreation Department (PARD) and the Development Services Department (DSD).

- Trees in public rights-of-way and related tree mitigation are managed by the Forestry Section of the PARD.
- Trees on private land and related mitigation are the responsibility of the Urban Forestry Section of the DSD.

Regulations governing both departments’ tree mitigation responsibilities are noted within Sections 6.302 and 33 of the City Code. PARD and DSD may work together, depending on the scope and affected areas of a project.

CITY OF FORT WORTH TREE MITIGATION RESPONSIBILITIES	
Park and Recreation Department	Development Services Department
Forestry permitting for City-owned property in public spaces	Urban forestry permitting for property (e.g. private property) within the City limits
<ul style="list-style-type: none"> • planting • tree protection • removal of trees • issuing Tree Removal Permits 	<ul style="list-style-type: none"> • planting on new development • tree preservation on new development • removal of trees • issuing Urban Forestry Permits (UFC)

Source: Auditor-Generated from Sections 6.302 and 33 of the Fort Worth City Code and City of Fort Worth permit records

A FY2005 City ordinance (No. 16270-01-2005) established fees for removed trees, and penalties for ordinance violations. During that same year, the City began a formal tree preservation process that required a permit from the City Forester before significant trees could be removed. For our audit period, significant trees were described as trees 27 inches in diameter throughout the entire city, and post oak or blackjack oak trees 18 inches in diameter, west of Interstate Highway 35W.

The term “tree mitigation” refers to the requirement to either preserve trees, re-plant trees, or pay a fee into the City of Fort Worth’s Tree Mitigation Fund for the removal of tree canopy or significant trees. When a development project is initiated within the city, part of the permitting process could include a tree removal permit from the PARD and/or an urban forestry permit from the DSD. Permits may result in a mitigation fee for tree removal affecting canopy size or significant trees.

Developers may use one or a combination of options to meet the City’s tree mitigation requirements. Some developers may choose to: 1) preserve all trees, 2) preserve a portion of the trees and pay mitigation fees for the remaining trees, 3) pay tree mitigation fees in lieu of tree preservation, 4) replant trees to meet the required canopy, or 5) pay tree mitigation fees when replanting does not meet requirements. Additionally, penalties may be levied against a developer.

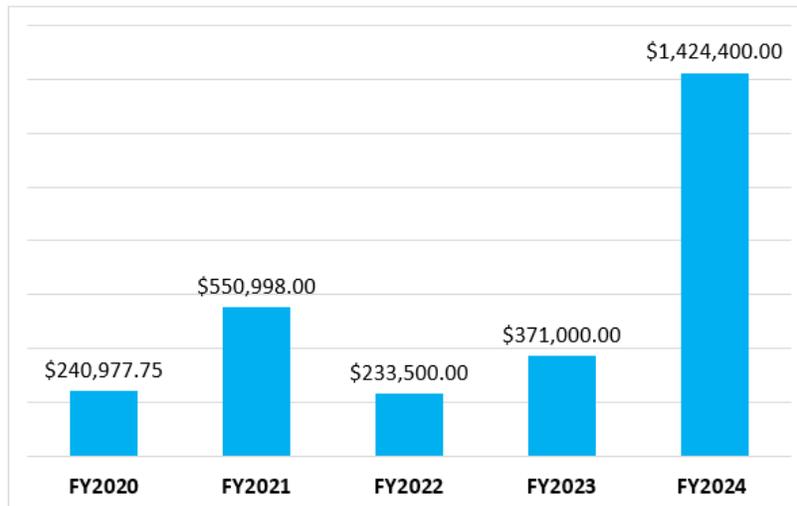
Customer applications (with site plans) are the basis for the assessment of tree mitigation fees. The application process for urban forestry and forestry permits requires that customers submit site plans showing existing conditions and proposed development, if applicable, to the City. Site plans include

easements, rights-of-way, and tree protection detail and delineation. The application process also requires that customers provide a tree survey, which is a listing of trees on site, with related information such as tree size, canopy area, significance, and whether the tree will be preserved or removed.

Inspections are a key aspect of tree mitigation fee assessments and are performed at different stages of the process. For example, an inspection is performed to confirm that the current state of the land is as documented in site plans. If variances are observed, City staff follow up with customers for site plan corrections. Additionally, inspections are performed to confirm that trees were preserved during required warranty periods established by the City Code.

Annual tree mitigation revenue averaged approximately \$349,000.00 between FY2020 and FY2023. Most of those payments (about 61.5%) totaled less than \$10,000.00 each. The substantial increase in FY2024 revenue included multiple payments, with the three largest payments totaling \$1,043,990.00. It should be noted that while the following chart displays a five-year trend, tree mitigation fees were established in 2005.

Tree Mitigation Fund Revenue FY2020 through FY2024



Source: PeopleSoft Financials

Objective

The objective of this audit was to determine the adequacy of controls in place to ensure the City collects tree mitigation fees as required.

Scope

The scope of this audit included a review of tree mitigation activity for the period October 1, 2022 through March 31, 2024. Activity beyond this period was reviewed as deemed necessary.

Methodology

To achieve the audit objective, the Department of Internal Audit performed the following:

- interviewed Park and Recreation and Development Services Department staff;
- reviewed § 2-322 *Penalties and Mitigation Fees*, § 6.302 *Urban Forestry*, and Chapter 33 of the City Code;
- reviewed the Park and Recreation and Development Services Departments' policies and procedures;
- reviewed § 212.905, *Regulation of Tree Removal*, of the Texas Local Government Code;
- reviewed tree inspection records and related inspection results;
- re-performed a random sample of tree mitigation fee calculations;
- verified postings of tree mitigation fees to the City's general ledger;
- performed a ride-along with a City of Fort Worth (CFW) tree mitigation inspector; and,
- evaluated internal controls related to the assessment and collection of tree mitigation fees.

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 on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Audit Results

Internal Audit concluded that the City of Fort Worth has regulations and processes in place to ensure that the City's tree canopy is preserved. Also, the Urban Forestry Section of the Development Services Department (DSD) and the Forestry Section of the Park and Recreation Department (PAR) enforce ordinances aimed at protecting tree canopies and significant trees within the city. Mitigation fees collected by both departments were deposited in the designated fund, and recorded into individual general ledger accounts, by the park district (i.e., central, north, south, east, and west) in which the tree mitigation occurred.

Tree inspectors were responsible for ensuring that site plans, submitted by customers, reflected the current state of the site and were used to calculate tree mitigation fees due. Additionally, inspectors physically monitored whether preserved or planted trees were maintained during the designated warranty period. During our audit, we saw evidence of City staff contacting customers to correct site plans, for reasons such as incorrect tree location, omitted trees, etc.

The City requires forestry and/or urban forestry permits as a prerequisite to other development permits (e.g., grading, building, etc.). This requirement provides an additional level of control, as this helps prevent development that did not consider the impact to the City's desired tree canopy. Additionally, both urban forestry and forestry permits were issued after payment was received.

Although our test results showed the City had processes to adequately protect tree canopies and ensure accuracy of site plans and fee calculations, we identified two opportunities for improvement. Based on our audit testing, PAR's manual tree mitigation process did not maximize accountability, and while the City Code provided guidance regarding tree mitigation for trees in private land, it did not specifically cover tree mitigation of trees on the City's public land.

In reference to the PAR's manual process:

- PAR staff created invoices, customer receipts, and permits in Word or Excel before converting to a PDF format; emailed invoices, receipts, and permits to customers; and then saved the documents onto PAR's shared drive.
- PAR invoices were manually numbered, while customer receipts and permits were not. The PAR issued customer receipts that referenced the associated manually-numbered invoices; however, the invoice numbers were not entered in PAR's Mitigation or Plan Review Logs.
- Unless PAR's tree mitigation process involved another City department, PAR customer payments options were limited to check or money orders. Electronic payment options were not offered.

Since mitigation of trees on City public land was not addressed within the City Code, the PAR relied upon departmental standard operating procedures, which were reportedly based on an early 2000s Ordinance. While we confirmed that the PAR calculated tree mitigation fees as noted within their departmental standard operating procedures, and while we located an FY2007 (No. 17228-10-2006 Ordinance), the Ordinance did not address different tree mitigation rates based on trees sized below or above a threshold, while the PAR standard operating procedures did.

Other instances Internal Audit deemed worth noting, but did not consider reportable findings, are noted as follows.

- We identified one instance (in November 2023) where the DSD assessed mitigation fees based on a customer's erroneous calculation. The calculation error was due to the customer classifying trees as significant, although the trees did not meet the City's definition of "significant". The DSD refunded the customer overpayment once notified by Internal Audit. We considered this an isolated instance and did not include the overpayment as a reportable finding.
- With the PARD's Forestry Division having only two designated staff and a manual process, segregation of duties were precluded. As noted within the City's Revenue Receipting Financial Management Policy Statement, other verification functions would be necessary when segregation of duties is not attained. Additionally, forestry-related invoices directed customers to mail or drop-off payments to the PARD Forestry Division versus directly to PARD Administration. Although our test results indicate that the PARD only received checks during our audit period, management's implementation of audit recommendations within this report (e.g., Audit Recommendation 1A, 1B, and 1C) helps eliminate improperly segregated duties and increases performance efficiency, including providing more customer payment options. It should be noted that Internal Audit did not detect any misappropriated funds during our audit period.
- Although Internal Audit was informed that cash payments were not accepted, there was one instance where the PARD emailed instructions (June 2023), informing a customer that payments could be made by cash or check. Since we only observed this one instance and since the customer paid by check, we did not consider this a reportable finding. PARD indicated that this could have been an inadvertent copy and paste from a prior email template used when cash was an acceptable method of payment.

Overall Risk Evaluation

High	Medium	Low
	Accountability not maximized within manual process	
	City Code's lack of addressing tree mitigation fees related to trees on public land	

Detailed Audit Findings

1. The Park and Recreation Department's tree mitigation process does not maximize accountability.

Based on our test results, PARD tree mitigation process was manual as follows.

- *Invoices*: PARD staff entered invoice information into an Excel document and manually typed in the invoice number, using a YYMMDD numbering methodology as the first six digits of the invoice number. Although the PARD issued manually-numbered invoices, invoice numbers were not entered in PARD's Mitigation or Plan Review Logs. By not logging invoice numbers, each individual customer file would have to be reviewed (versus simply referring to the log) to help validate expected revenue.
- *Customer Receipts*: Upon receipt of payment, the PARD issued manually-typed customer receipts that were not numbered. The customer receipts referenced the associated invoice numbers.
- *Permits*: PARD issued manually-typed permits that were not numbered.

The absence of numbering customer receipts and permits (which should be sequential) impacts the ability to verify the collection of tree mitigation fees and issuance of permits. During our audit period, tree mitigation logs indicated that the PARD invoiced for 24 projects that were manually processed. However, the PARD's tree mitigation process was automated when projects involved the Development Services Department (DSD).

Internal Audit also noted that electronic payment options were offered when development projects involved the PARD's coordination with other City departments (e.g., Development Services, Water, or Transportation and Public Works). Customers who were issued permits through Accela were provided electronic payment options, while PARD's tree mitigation customers were instructed to make payments by check or money order.

Internal Audit concluded that automation would help enhance controls over PARD's tree mitigation permitting process (e.g., numerical sequencing of transactions and permits, records retention, etc.) as well as provide electronic payment options. It should be noted that regardless of whether management chooses to automate the process, Government Finance Officers Association best practices recommend promoting electronic methods of payment when feasible and cost-effective. Furthermore, manual processes are more prone to human error, and the absence of numbering causes more difficulty when reconciling to the City's general ledger.

The City of Fort Worth has several written policies that address financial management activities that help ensure accountability.

- Section X, *Costs and Benefits*, of the City's Internal Controls Financial Management Policy Statement indicates that internal control systems and procedures must have an apparent benefit in terms of reducing and/or preventing losses. The cost of implementing and maintaining any control system should be evaluated against the expected benefits to be derived from that system.
- Section XI, *Transaction Receipts*, of the City's Revenue Receipting Financial Management Policy Statement indicates that receipts should detail payment information and should be sequentially numbered and unique to each transaction.

Recommendation 1A: *The Park and Recreation Department Director, in cooperation with the Development Services Department Director, should determine whether it is operationally and financially feasible to manage PARD tree mitigation transactions within Accela.*

Auditee's Response: Park and Recreation Department (PAR) and Development Services Department (DSD) concur with the recommendation. Kick off meeting is scheduled for the PAR and DSD staff on 02/05/2026. During the meeting, both teams will begin discussions to assess the operational and financial feasibility of managing tree mitigation transactions within Accela or determine whether an alternative solution would be more viable.

Target Implementation Date: July 31, 2026

Responsibility: PAR Planning & Resource Management Division and DSD

Applicable Department Head: PAR and DSD

Applicable Assistant City Manager: Dana Burghdoff

Recommendation 1B: *If using Accela is deemed non-feasible, the Park and Recreation Department Director should ensure that tree mitigation invoices, customer receipts, and permits are numbered and issued in sequential order; tree mitigation invoices, customer receipts, and permit numbers are added to tree mitigation logs upon issuance; and information captured on tree mitigation logs is routinely monitored.*

Auditee's Response: PAR concurs with the recommendation. PAR would utilize the current system (MS Word and Excel) with a sequential numbering system. PAR will work collaboratively with FMS and DSD staff to determine whether Accela or an alternative solution is the most feasible option.

Target Implementation Date: July 31, 2026

Responsibility: PAR Planning & Resource Management Division

Applicable Department Head: PAR

Applicable Assistant City Manager: Dana Burghdoff

Recommendation 1C: *If using Accela is deemed non-feasible, the Park and Recreation Department Director should determine whether it is operationally and financially feasible to offer electronic payment options to PAR tree mitigation customers. If feasible, the Park and Recreation Department Director should begin offering electronic payment options to tree mitigation customers.*

Auditee's Response: PAR concurs with the recommendation. PAR will explore this option with the Finance Department to determine if electronic payment is feasible. A determination regarding the feasibility of using Accela is anticipated at the February 5, 2026, kickoff meeting with DSD staff.

Target Implementation Date: July 31, 2026

Responsibility: PAR Planning & Resource Management Division

Applicable Department Head: PAR

Applicable Assistant City Manager: Dana Burghdoff

2. Tree mitigation fees related to trees on public land are not specifically covered within City Code.

At the City of Fort Worth, Mayor and City Council fee authorizations are included in City Ordinances/the City Code. City management then is to bill fees as authorized by the Mayor and City Council.

During the audit period, two sections of the City Code addressed jurisdiction of trees within City limits, including tree removals.

- Chapter 33 of the City Code addresses PARD's jurisdiction over trees in public land, but is silent in reference to tree mitigation.
- Section 6.302 of the City Code provides guidance for mitigating fees related to significant tree removals. This section of the City Code is part of the City's Zoning Regulations, normally applies to the DSD, and does not address trees in public land, which is the responsibility of the PARD.

Since neither section of the City Code specifically addressed tree mitigation under the PARD's purview, the PARD relied upon their departmental standard operating procedures. The PARD indicated they charged \$200.00 per-diameter-inch and \$200.00 per-two-inches (e.g., \$200.00 x 2) per-inch as noted within their standard operating procedures. The PARD also indicated that their fees were based on an early 2000s City Ordinance. Internal Audit identified a FY2007 Ordinance (No. 17228-10-2006) which specified a \$200.00 per-diameter-inch rate.

We concluded that the PARD calculated tree mitigation fees as noted within their standard operating procedures. However, we noted that the FY2007 Ordinance addressed tree mitigation on a per-inch basis and for significant or large trees 30 inches in diameter, while the PARD's standard operating procedures differentiated between trees less than or greater than 30 inches in diameter. As a result, Internal Audit was unable to verify the amount that should have been billed.

Without clear guidance, there is increased risk of billing customers the wrong amount, which may lead to customer dissatisfaction and potential reputational risk. It could also cause employee confusion and frustration. Internal Audit was informed that it is possible that the disconnect between City ordinances occurred through updates throughout the years (i.e., initial ordinance was not specific about tree sizes, while the updated ordinance specified tree sizes). Images from both the FY2007 ordinance and the PARD SOPs are provided as follows.

FY2007 City Ordinance

4. Tree preservation / significant or large trees

- a. Significant or large trees 30 inches in diameter (94.25 inches in circumference) for the entire city or 20 inch diameter (62.83 inches in circumference) for Post Oaks and Blackjack Oaks east of Interstate Highway 35 West can only be removed by permit of the City Forester. The reduced diameter for Post Oaks and Blackjack Oaks east of I 35 W is in recognition of the naturally occurring Post Oak Savannahs within the Cross Timbers Zone. Preservation of a significant or large tree will be credited to the required canopy cover 1.5 times the actual canopy size.
- b. Criteria for granting the permit will be one of the following conditions;
1. Removal will be granted if an area 1 ½ times the area of the specific tree's canopy is retained on the same site. The 1 ½ retention of existing trees shall be in excess of the required tree coverage on the site/tract, or
 2. Removal will be granted if planting of new trees at five (5) times greater in canopy area than the removed specific tree canopy. The additional planting of 5 to 1 will be in excess of the required tree coverage on the site, or
 3. Payment into the tree fund based upon the total diameter of the specific tree times \$200 per diameter inch, or
 4. Urban Forestry Board approved plan that mitigates the removal of the large tree
- c. Replacement any tree preserved and that dies within five years due to construction or development activities will be the responsibility of the original applicant. Replacement will be new trees with a minimum of 3 inches each in diameter and equal to five times the lost canopy. Tree replacement will be guarantee for a period of two years.

Source: City Ordinance No. 17228-10-2006

PARD STANDARD OPERATING PROCEDURES

Mitigation Requirements for Permitted Tree Removal

1. Any tree removal in the City right-of-way, parkland or other public space belonging to the City of Fort Worth requires a permit from the City Forester.
2. Prohibited trees may be permitted for removal from the parkway and/or median without mitigation.
3. Trees located in the alley may be permitted for removal, typically without mitigation.
4. Trees in poor health or condition may be permitted for removal without mitigation.
5. Trees or shrubs listed in the Nonnative Invasive Plants of Southern Forests published by the USDA may be removed without mitigation, regardless of location.
6. All other trees less than 30" in diameter at breast height (DBH) permitted for removal must be mitigated on an inch per inch basis.
7. Trees 30" and greater DBH permitted for removal must be mitigated on a two inch per inch basis.
8. Mitigation trees must be planted on City right-of-way, median or other City-owned land affecting the initial tree removal site. They must be watered and maintained for a period of two years.
9. If mitigation on site is not possible or desirable, payment into the tree fund can be made in the amount of \$200 per inch not planted, to include two inches per inch removed for trees 30" and greater DBH.
10. A combination of planting and payment may be allowed with approval from the Park & Recreation Department.
11. Mitigation trees must be planted before final inspection of the site. Mitigation payments to the tree fund must be made at the time of permitting.
12. A tree planting permit will be issued for trees to be planted on City property at the same time as the tree removal permit.

Source: PARD Forestry Section Policies and Procedures

It should be noted that Internal Audit confirmed that DSD assessed tree mitigation fees according to Section 6.302 of the City Code.

Recommendation 2A: *The Park and Recreation Department Director and the Development Services Department Director, in cooperation with the City Attorney's Office, should consider revisiting tree mitigation fees to ensure trees of all diameters are properly addressed and in compliance with the City Ordinance.*

Auditee's Response: PARD concurs with the recommendation. Kick off meeting scheduled for PARD, DSD and Legal 02/17/2026 to discuss aligning public tree mitigation fees with Urban Forestry (private) tree mitigation fees.

Target Implementation Date: September 30, 2026

Responsibility: PARD Planning & Resource Management Division

Applicable Department Head: PARD

Applicable Assistant City Manager: Dana Burghdoff

Recommendation 2B: *If the City Ordinance is updated, the Park and Recreation Department Director and the Development Services Department Director should ensure that fee schedule(s) and standard operating procedures are updated accordingly and communicated to staff for implementation.*

Auditee's Response: PARD concurs with the recommendation. If the City Ordinance is updated, a notification with the updated fee schedule will be shared with PARD and DSD staff that administer the tree mitigation policies.

Target Implementation Date: September 30, 2026– following adoption of updated schedules

Responsibility: PARD Planning & Resource Management Division

Applicable Department Head: PARD

Applicable Assistant City Manager: Dana Burghdoff

Acknowledgements

The Department of Internal Audit would like to thank the Development Services and Park and Recreation Departments for their cooperation and assistance during this audit.