RESOLUTION NO. R26-09

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF NEEDVILLE, TEXAS, RECEIVING UPDATED LAND USE ASSUMPTIONS, CAPITAL IMPROVEMENTS PLAN, AND WATER AND WASTEWATER IMPACT FEE REPORT RELATING TO THE POSSIBLE ADOPTION OF UPDATED IMPACT FEES.

WHEREAS, Chapter 395 of the Texas Local Government Code authorizes municipalities to adopt impact fees for capital improvements necessitated by and attributable to new development; and

WHEREAS, the City of Needville previously adopted water and wastewater impact fees based on its capital improvement plan; and

WHEREAS, Texas law requires cities to update their capital improvement plans and reauthorize impact fees on a regular basis; and

WHEREAS, the firm of Kaluza, Inc., has prepared updated land use assumptions and a capital improvements plan and has calculated proposed impact fees ("Water and Wastewater Impact Fee Report"), and a copy of such firm's report and recommendation is attached to this Resolution as Exhibit A; and

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Needville, Texas, that:

1. The City Council finds the matters and facts set forth in the recitals of this Resolution to be true and correct and incorporates such recitals as a part of this Resolution for all purposes.

2. The City Council hereby accepts the Water and Wastewater Impact Fee Report, attached hereto as Exhibit A.

PASSED AND APPROVED this _____ day of_____, 2026.

CITY OF NEEDVILLE, TEXAS

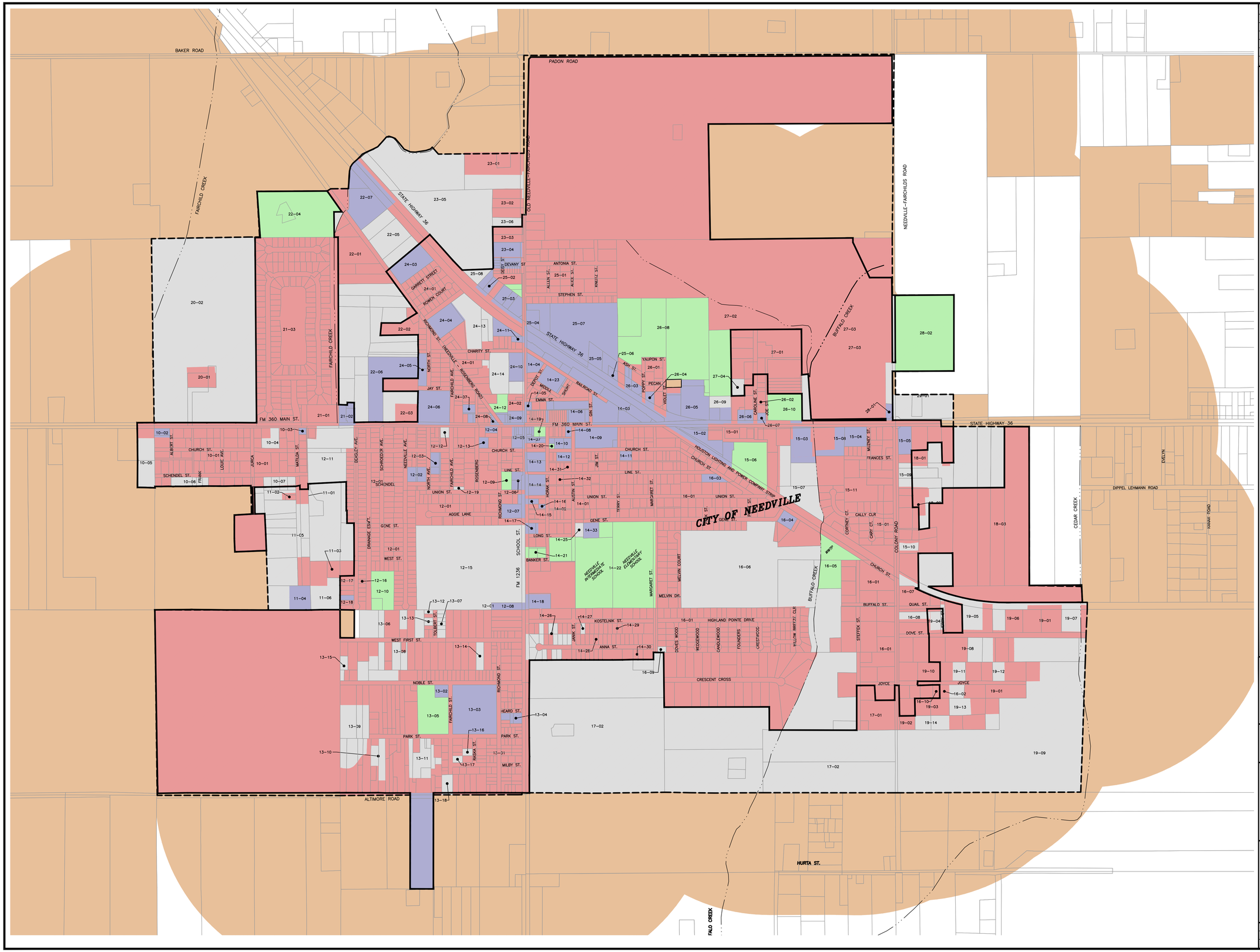
By: _____
Chad Nesvadba, Mayor

ATTEST:

_____
Cynthia Sullivan, City Secretary

Exhibit A

Updated Water and Wastewater Impact Fee Report



NO.	DATE	REVISIONS	APP.

0 600 1200

SCALE: 1" = 600'

LEGEND:

- PROPERTY LINES AS PER FORT BEND CENTRAL APPRAISAL DISTRICT PARCEL MAP 10/2005
- CITY OF NEEDVILLE CITY LIMITS
- SERVICE AREA LIMITS
- SINGLE FAMILY RESIDENTIAL
- COMMERICIAL, INDUSTRIAL, AND NON-SINGLE FAMILY
- COMMUNITY
- UNDEVELOPED
- CITY OF NEEDVILLE EXTRATERRITORIAL JURISDICTION

LAND USE MAP

KALUZA INC
CONSULTING ENGINEERS & SURVEYORS
ENGINEERING FIRM No. F-1339
SURVEYING FIRM No. 10010000
3014 AVENUE I, ROSENBERG, TX. 77471
PH.281.341.0808 FAX.281.341.6333

SHEET No. 1 of 1

SCALE: 1"=600'	DRAWN BY: LG
VERT.: N/A	APP. BY: RWS
DATE: 02/07/2020	AB./COUNTY: 219/FORT BEND

WATER AND WASTEWATER
UTILITY IMPACT FEE REPORT (DRAFT)

CITY OF NEEDVILLE, TEXAS

Prepared in Accordance with
Texas Local Government Code Chapter 395

May 2026

KALUZA, Inc.
3014 Avenue I, Rosenberg, Texas 77471
TBPE Firm Number F-1339

TABLE OF CONTENTS

EXECUTIVE SUMMARY

This Impact Fee Report has been prepared for the City of Needville to establish water and wastewater utility impact fees in accordance with Texas Local Government Code Chapter 395. The fees are designed to ensure that new development pays its proportionate share of the capital costs necessary to provide adequate utility service capacity. The majority of the information provided in this report is based upon the City's Utility Master Plan adopted in April 2026 (Exhibit A).

The City of Needville is experiencing significant growth, with projections indicating the utility system will more than double in size over the next 10 years. Current system capacity may be exceeded by approved developments within the next 2-3 years, necessitating substantial capital investment in water and wastewater infrastructure through 2035.

Key Findings

- Total growth-related capital costs through 2035: $12.6 million (water) and $15.7 million (wastewater).
- Projected new connections through 2035: 1,901 equivalent single-family connections.
- Current wastewater treatment capacity is projected to be exceeded by 2027 without expansion.
- Impact fees are calculated to recover growth-related costs only, excluding rehabilitation of existing infrastructure.

LEGAL AUTHORITY AND BACKGROUND

Texas Local Government Code Chapter 395

In 2020, the City updated their system-wide Impact Fees for water and wastewater plant facilities. At that time, the City included the water and wastewater plant facilities. The purpose of this Study is to update the land use, the capital improvements plan and update of the water and wastewater impact fees based on those same assumptions.

Chapter 395 of the Texas Local Government Code provides authority for the City of Needville to establish impact fees for the water and wastewater system. Chapter 395 specifies procedures and minimum requirements for establishing and updating the impact fees.

Chapter 395 identifies the following items as impact fee eligible costs:

- Construction contract price
- Surveying and engineering fees
- Land acquisition costs
- Fees paid to the consultant preparing or updating the capital improvements plan (CIP)
- Projected interest charges and other finance costs for projects identified in the CIP

Chapter 395 also identifies items that impact fees cannot be used to pay for, such as:

- Construction, acquisition, or expansion of public facilities or assets other than those identified on the capital improvements plan
- Repair, operation, or maintenance of existing or new capital improvements
- Upgrading, updating, expanding, or replacing existing capital improvements to serve existing development in order to meet stricter safety, efficiency, environmental, or regulatory standards
- Upgrading, updating, expanding, or replacing existing capital improvements to provide better service to existing development
- Administrative and operating costs of the political subdivision
- Principal payments and interest or other finance charges on bonds or other indebtedness, except as allowed above

Consistent with the previous impact fee adoption, the City Planning Commission will serve as the Impact Fee Advisory Committee. The Committee's responsibilities include (1) reviewing the land use assumptions, the projected growth in the service area and the capital improvement program for the system and (2) filing recommendations to the City Council as required by Chapter 395.

Purpose of Impact Fees

Impact fees serve two primary policy objectives. First, they implement the principle that growth should pay for growth by ensuring new development contributes its proportionate share of infrastructure expansion costs. This avoids existing customers from subsidizing infrastructure capacity required exclusively to serve new development. Second, impact fees provide a reliable funding mechanism for infrastructure expansion, reducing reliance on general revenue bonds and utility rate increases to finance growth-related capital improvements.

Service Areas

The City of Needville provides water and wastewater service within its municipal limits and to select areas within its extraterritorial jurisdiction where the City has extended utility services through developer agreements or annexation commitments. The service area encompasses approximately 3.5 square miles and serves both residential and commercial customers (Exhibit B). The impact fees established in this report apply to all new connections to the City's water and wastewater systems regardless of location within the service area.

METHODOLOGY

General Approach

The impact fee calculation methodology follows the incremental expansion approach, which is the most appropriate method for rapidly growing communities with clearly defined capacity thresholds. This approach calculates impact fees based on the incremental cost of capacity expansion required to serve projected growth over the planning period.

The calculation follows these steps:

- Identify capital improvement projects necessary to accommodate projected growth
- Allocate project costs between growth-related and existing infrastructure needs
- Sum growth-related costs to determine total cost basis
- Project new service units (connections) over the planning period
- Calculate cost per service unit (connection)
- Apply appropriate credits for other contributions

Service Unit Definition

For purposes of this impact fee analysis, the service unit is defined as one Equivalent Single Family Connection (ESFC). A Service Unit is a standardized measure of water use or wastewater generation based on the capacity of water meters serving new development. The standard residential connection utilizing a 5/8" x 3/4" displacement meter with a maximum normal operating range of 20 gallons per minute is defined as one Service Unit.

Water Service Units for new development are determined based on the maximum normal operating flow range of the water meters that will serve new development, including residential, commercial, industrial, community and other uses. Service Unit equivalencies are based on product information for water meters currently utilized by the City. This meter-based approach ensures that all customer classes pay impact fees proportionate to their infrastructure capacity requirements based on meter size and type.

Equivalency Factors

Service Unit equivalencies for water and wastewater are determined based on the maximum normal operating flow range of the water meters that will serve new development. The equivalency factors are based on product information for water meters currently utilized by the City, as shown in the following table.

Meter Size	Meter Type	Max. Normal Operating Range (GPM)	Service Unit Equivalency
5/8" x 3/4"	Displacement	20	1
3/4"	Displacement	30	2
1"	Displacement	50	3
1-1/2"	Displacement	125	7
1-1/2"	Ultrasonic	125	7
1-1/2"	Turbine	160	8
2"	Ultrasonic	160	8
2"	Compound	200	10
2"	Turbine	200	10
3"	Compound	450	23
3"	Turbine	450	23
4"	Compound	1,000	50
4"	Turbine	1,200	60
6"	Compound	2,000	100
6"	Turbine	2,500	125
8"	Turbine	4,000	200
10"	Turbine	6,500	325

Note: For meter capacities that vary from those listed in the table, the Service Unit equivalency and related Impact Fee shall be determined by the City based on the maximum normal operating flow range of the meter.

EXISTING SYSTEM AND PROJECTED GROWTH

Current System Capacity

As of January 2026, the City of Needville water and wastewater systems serve 1,801 connections. The wastewater treatment plant is permitted for 400,000 gallons per day capacity and currently processes an average daily flow of 221,609 gallons per day, representing 55% utilization. The water system includes three water plants with combined production capacity of 1,625 gallons per minute, 4,980 gallons per minute of service pump capacity, and 765,515 gallons of storage.

Growth Projections

Population and connection projections are based on detailed analysis of approved development projects, historical growth trends, and the City's comprehensive planning documents. The projections incorporate all known and approved subdivisions through 2027, representing 1,457 new connections. Beyond 2027, a conservative 5% annual growth rate is applied to account for continued development interest.

Year	Total Connections	Population	Water Demand (GPD)	WW Flow (GPD)	% WW Capacity
2026	1,801	4,683	270,166	232,530	58%
2027	2,160	5,616	324,180	278,700	70%
2030	2,501	6,503	375,213	322,547	81%
2035	3,192	8,299	478,882	411,680	103%

The projections indicate the wastewater system will exceed permitted capacity by 2035, confirming the need for treatment plant expansion. The water system will similarly require capacity improvements including booster pump expansion, distribution system extensions, and storage tank additions to serve projected growth through 2035.

CAPITAL IMPROVEMENT PLAN ANALYSIS

CIP Overview

The City of Needville's 10-year Capital Improvement Plan identifies infrastructure projects necessary to maintain service reliability, comply with regulatory requirements, and accommodate projected growth through 2035. Total investment requirements are roughly $28.3 million over the planning period, not including any unpredicted inflation.

Growth-Related Cost Allocation

To comply with Texas Local Government Code Chapter 395, each capital project was evaluated to determine the portion of costs attributable to new development versus existing system deficiencies.

The allocation methodology considers several factors including whether the project addresses existing capacity deficiencies, provides service to new development areas, brings the system into regulatory compliance, or replaces aging infrastructure at the end of its useful life.

Water System Capital Projects

Project	Total Cost
Water Plant #1 Reconstruction	$2,799,400
Old Needville-Fairchilds 12" Waterline Extension (upsize only)	$160,000
Western Service Area Expansion	$3,250,000
TxDOT SH 36 expansion (City contribution for utility installations)	$500,000
City Barn Ground Storage Expansion	$1,150,500
Distribution System Improvements	$2,400,000
Water Well #4 Capacity Expansion	$2,850,000
TOTAL WATER SYSTEM	**$12,609,400**

Wastewater System Capital Projects

Project	Total Cost
WWTP Assessment & preliminary engineering	$125,000
Lift Station #3 Upgrade	$500,000
WWTP 0.40 MGD Expansion – Planning, Design & Construction	$13,500,000
Buffalo Creek Trunk Line 12 inch upsizing (Design & Construction)	$250,000
TxDOT SH 36 expansion (City contribution for utility installations)	$500,000
Highland Point Drive Trunk Line Upgrade	$427,500
Phase 2 WWTP Expansion Planning	$400,000
TOTAL WASTEWATER SYSTEM	**$15,702,500**

IMPACT FEE CALCULATION

Calculation Formula

The impact fee per equivalent single family connection is calculated using the following formula:

> *Impact Fee per ESFC = Total Growth-Related Capital Costs ÷ Projected New Connections*

Water System Impact Fee

Total growth-related water capital costs: $12,609,400

Impact Fee Plan Preparation Cost: $39,600

Projected total connections (2035): 3,192 ESFC

Less existing connections (2024): 1,291 ESFC

New connections to be served (2025-2035): 1,901 ESFC

Percentage of improvements impacted by growth: 1,901 ÷ 3,192 = 0.5956

Total Eligible Impact Fee Costs: $12,649,000 x 0.5956 = $7,533,744

Maximum Water Impact Fee = $7,533,744 ÷ 1,901 = $3,963 per ESFC

Wastewater System Impact Fee

Total growth-related wastewater capital costs: $15,702,500

Impact Fee Plan Preparation Cost: $39,600

Projected new connections (2025-2035): 1,901 ESFC

Total Eligible Impact Fee Costs: $15,742,100 x 0.5956 = $9,375,994

Maximum Wastewater Impact Fee = $9,375,994 ÷ 1,901 = $4,932 per ESFC

IMPLEMENTATION AND ADMINISTRATION

Collection and Payment

Impact fees should be collected at the time of building permit issuance. The City may enter into development agreements providing for alternative payment schedules, provided adequate financial security is furnished.

Credits

Developers may receive credits against impact fees for on-site and off-site infrastructure improvements that provide capacity benefiting other properties within the service area. Credit amounts shall be determined through engineering analysis demonstrating the capacity benefit provided to the system. Infrastructure improvements constructed as required frontage or development conditions providing capacity solely for the project may not qualify for impact fee credits.

CONCLUSION

The recommended impact fees of $3,963 per residential connection for water and $4,932 per residential connection for wastewater represent conservative charges that ensure new development contributes its proportionate share of growth-related capital costs. The City should review this Impact Fee Report every five years or when material changes occur in growth patterns, infrastructure costs, or capital improvement priorities.

_____

Jeremy D. Davis, P.E., CFM – City Engineer