

City of Everman

2022-2032 Capital Improvements Plan and Impact Fee Study

Water and Sanitary Sewer



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ACRONYMS AND ABBREVIATIONS

AASHTO	American Association of State and Highway Transportation Officials
ADF	Average Daily Flow
ASCE	American Society of Civil Engineers
CFS	Cubic Feet per Second
CIP	Capital Improvements Plan
EDU	Equivalent Dwelling Unit
GPD	Gallons Per Day
GPM	Gallons Per Minute
GPED	Gallons Per Day EDU
ITE	Institute of Transportation Engineers
LOS	Level of Service
MDF	Maximum Daily Flow
MGD	Million Gallons per Day
NCTCOG	North Central Texas Council of Governments
NTMWD	North Texas Municipal Water District
PGBT	President George Bush Turnpike
PH	Peak Hour Flow
SH	State Highway
TCEQ	Texas Commission on Environmental Quality
TWDB	Texas Water Development Board



1.0 EXECUTIVE SUMMARY

Cobb, Fendley, and Associates, Inc. (CobbFendley) has been contracted by the City of Everman to update the 10-year Capital Improvements Plan ("CIP") for Water and Sanitary Sewer and to perform a study to determine a maximum allowable impact fee for each.



The Capital Improvements Plan and Impact Fee Study were conducted in compliance with Local Government Code, Title 12, Planning and Development, Chapter 395, et seq, Financing Capital Improvements in Municipalities, Counties, and Certain Other Local Governments and its Successors. Under the Government Code requirements, the City is required to adopt an ordinance, order, or resolution approving land use assumptions and capital improvements plan prior to considering adoption of an impact fee.

Objectives

The objectives of this study are to identify the probable growth of the City through 2032 and to determine the capital improvements that will be needed to provide service to this growth, and to calculate the maximum allowable impact fees which may be assessed to new development to defray the cost of the required water and sanitary sewer improvements needed to support the added demand.

The study was developed as follows:

- Population and land use projections - Projections were derived from historical growth statistics and anticipated growth, and formed the basis for which service demands were derived. Sources used in making population projections include the 2020 Census, the 2021 Everman Zoning Map, and information provided by the City of Everman. Land use assumptions were provided in the 2022 Land Use Assumptions for Impact Fees by Stephen A Cook, AICP.
- The existing and anticipated demand for water and sanitary sewer were developed from consumption records and anticipated growth within the City. A water and sanitary sewer CIP for 2032 was developed to serve the projected land uses and resulting utility demands. This CIP will become the basis for the City's maximum impact fee determination.
- Water System Capital Improvement Projects are based on information provided by the City of Everman.



- Sanitary Sewer System Capital Improvement Projects are based on information provided by the City of Everman.
- The maximum impact fee was determined in compliance with Local Government Code, Title 12, Planning and Development, Chapter 395, et seq, Financing Capital Improvements in Municipalities, Counties, and Certain Other Local Governments.

The maximum impact fee determination was made using the Chapter 395 prescription for use of funds collected. Existing capital improvements that serve existing development and new facilities that will be required by new development for the study period were identified and tabulated. The capital improvement projects identified through this study total \$5,667,075 for water and \$1,627,800 for sanitary sewer. The estimated construction costs for proposed improvements include basic items plus appurtenances, as well as allowances for engineering and contingencies. The costs assume that the improvements will be constructed within existing roadway rights-of-way and do not include allowances for legal or fiscal costs. The probable costs are based on current-year dollars and average unit costs. The maximum impact fee for water is \$3,193 per Equivalent Dwelling Unit (EDU), the maximum sanitary sewer impact fee is \$2,410 per EDU.



2.0 POPULATION PROJECTIONS AND LAND USE ASSUMPTIONS

According to the Census Bureau, the 2020 City population was 6,154. Based on the Everman Land Use Assumptions for Impact Fees (See Exhibit 2-1), the City has the potential of increasing the number of housing units by 313 units (service connections) at buildout if vacant land area is redeveloped according to the existing zoning. With an estimated 3.22 persons per household, these potential 313 units result in a buildout projected population of 7,162. However, for the use of the CIP and Impact Fee Study, the estimated additional units in the next 10 years is 217, which results in a population of 6,852 in 2032.

3.0 WATER MASTER PLAN

3.1 General

The City of Everman's water system consists of more than 27 miles of water lines and utilizes an elevated storage tank and ground storage tanks with booster pump stations. The City of Everman's water supply currently comes from 7 wells and an emergency connection with the City of Fort Worth. In order to meet future demands, the City must water wells and/or modify their existing contract to purchase additional water.



3.2 Existing Water System

Everman's existing water system utilizes PVC and cast iron pipe material ranging from 1 inch to 20 inch in diameter. The water system includes 7 wells, 7 ground storage tanks, 1 elevated storage tank, and 4 booster pump stations.

WATER WELLS (946 GPM Total)	
Well	Capacity
# 1	85
# 2	160
# 3	110
# 4	65
# 5	90
# 6	220
# 7	216



EXISTING STORAGE FACILITIES (2,460,000 gal Total)			
Tank	Location	Type	Storage Capacity
# 1	Well #1 & #2	Ground	200,000 gal
# 2	Well #3 & #7	Ground	100,000 gal
# 3	Well #4	Ground	210,000 gal
# 4	Well #5 & #6	Ground	1,200,000 gal
# 5	Well #3 & #7	Elevated	750,000 gal

BOOSTER PUMPS (4700 GPM Total)			
Pump	Location	HP	Capacity
# 1	Wells #1 & #2	30	1,200 GPM
# 2	Wells #3 & #7	25	1,000 GPM
# 3	Well #4	25	500 GPM
# 4	Wells #5 & #6	50	2,000 GPM

3.3 Required Storage

Per TCEQ Chapter 290.45 (b) (1) (D) (ii), the City must have a total minimum water storage capacity of 200 gallons per connection. Being conservative and using all 2,111 connections, the City is currently required to have 422,200 gallons of total storage. The City currently has 2,460,000 gallons of total storage and therefore is in compliance.



The population and build out projections, being conservative and including all connections, indicate that the City will require 465,600 gallons of total storage by the year 2032. The current total storage capacity of 2,460,000 will meet the future storage requirements.

Per Chapter 290.45 (b) (1) (D) (iv), the City must have a total minimum elevated water storage capacity of 100 gallons per connection. Being conservative and using all 2,111 connections, the City is required to have 211,100 gallons of elevated storage. The City currently has 750,000 gallons of elevated storage and therefore is in compliance.

The population and build out projections, being conservative and including all connections, indicate that the City will require 232,800 gallons of elevated storage by the year 2032. The current elevated storage capacity of 750,000 gallons will meet the future elevated storage requirements.



Type	Existing (Gallons)	TCEQ	Projected TCEQ
		Requirement 2022 (Gallons)	Requirement 2032 (Gallons)
Ground	1,710,000	211,100	232,800
Elevated	750,000	211,100	232,800
Total	2,460,000	422,200	465,600

3.4 Demand Rates

The average day and maximum day water demands for 2022 were obtained from 2021 data provided by the City. To develop the future water demands, water system and population data was used. The current and projected water demands are shown below:

DEMAND RATES 2021		
Average Daily	420,083	Gallons/Day
Maximum Day	619,000	Gallons/Day

PROJECTED DEMAND RATES			
Year	Average Daily Demand (Gallons/Day)	Service Unit Demand (Gallons/Day)	Service Units
2021	420,083	199	2,111
2032	463,265	199	2,328
10-Year Additional Service Units			217

3.5 Pumping Requirements

The City currently has four booster pump stations with a combined capacity of 4,700 GPM, which yields 2.23 GPM per connection. Per TCEQ Chapter 290.45 (b) (1) (D) (iii), for systems which provide an elevated storage capacity of 200 gallons per connection, two service pumps with a minimum combined capacity of 0.6 GPM per connection are required at each pump station or pressure plane. The City's current combined pumping capacity of 2.23 GPM is in compliance.

The population and build out projections, being conservative and including all connections, indicate that the City's combined pumping capacity will be 2.02 GPM per connection in 2032. This combined pumping capacity is above the required 0.6 GPM per connection and therefore meets future requirements.



3.6 Opinion of Probable Cost

The opinions of probable costs presented here are preliminary and final costs may vary. The probable costs are based on current-year dollars and average unit costs and do not include allowances for legal or financing costs. The cost of the 10-year water system CIP is estimated to be \$5,667,075. A project cost breakdown is shown in Table 3-1. Everman may re-prioritize these projects based on fund availability and other factors.

4.0 SANITARY SEWER MASTER PLAN

4.1 General

The City of Everman's sanitary sewer collection system is made up of more than 23 miles of gravity sewer lines that conveys flows to the Fort Worth collection system and then further conveyed to the treatment plant. The current system is made up of 9 drainage basins, with some of these basins divided into sub-basins, and the basins are defined by the City's topography.

The surface topography of Everman consists of two regulatory floodways, west to east, in which the City of Fort Worth operates two wastewater collection lines. This results in the individual areas flowing north or south towards the Fort Worth wastewater lines, but generally flow to the northeast.

4.2 Existing Sanitary Sewer System

The City does not own or operate a wastewater treatment plant and has a long-term contract with the City of Fort Worth for the treatment of all sewage. Everman's sewage collection system consists of PVC and clay pipes ranging from 6 inch to 12 inch in diameter. The City does not own or operate any lift stations or force mains in the sewer collection system.

4.3 Demand Requirements

CobbFendley evaluated the sanitary sewer system capacity with assistance from City staff. The evaluation concluded the existing sanitary sewer system is adequate and there are no capacity issues. Any identified improvements to the existing system are to replace aging infrastructure.

Drainage basins with anticipated growth, identified in the land use assumptions, were evaluated based on the potential units for each basin and future lines were sized to



accommodate ultimate wastewater flows. Wastewater lines within the undeveloped properties are excluded from the Capital Improvements Plan (CIP) and the impact fee calculation as they are generally the responsibility of developers.

The proposed sewage collection system for 2032 was determined from land use and population projections for the study period. The system was evaluated under these demands and capital improvement projects were identified. The proposed projects are designed with capacity for the calculated 2032 flows, as well as flows for continued growth after 2032, but within the 40-year life expectancy of the projects. TCEQ criteria were used to determine the potential sizes of proposed sanitary sewer lines and the projected wastewater flows. Residential and school flows were applied where necessary (100 GPD/capita residential and 15-20 GPD/student for school flows).

4.4 Opinion of Probable Cost

The opinions of probable costs presented here are preliminary and final costs may vary. The probable costs are based on current-year dollars and average unit costs and do not include allowances for legal or financing costs. The cost of the 10-year sanitary sewer system CIP is estimated to be \$1,627,800. A project cost breakdown is shown in Table 4-1. Everman may re-prioritize these projects based on funds availability and other factors.

5.0 MAXIMUM IMPACT FEE DETERMINATION

5.1 Basis for Impact Fee Compliance

The maximum impact fee determination has been prepared as set forth in Local Government Code, Title 12, Planning and Development, Chapter 395, et seq., Financing Capital Improvements Required by New Development in Municipalities, Counties, and Certain Other Local Governments, and Its Successors.

5.2 Technical Basis for Impact Fee Calculations

5.2.1 Capital Improvements Plan Requirements

The CIP must contain specific enumeration of the following:

- A description of the existing capital improvements within the service area and improvements necessary to meet requirements to serve existing demand.
- An analysis of capacity, necessitated by new development within the service area commitments and level of current usage.



- A description of capital improvements or facility expansions and their costs necessitated by new development in the service area based on approved land use assumptions.
- A table establishing the quantity of use of a service unit for each category of capital improvement and an equivalency establishing the ratio of a service unit to various types of land use.
- The number of projected service units necessitated by new development within the service area based on approved land use assumptions.
- The projected demand for capital improvements required for new service units projected over a period not to exceed 10 years.
- A plan for awarding a credit for the portion of ad valorem tax and utility service revenues generated by new development during the program period, or a credit equal to 50 percent of the total projected cost of implementing the capital improvements plan.

5.2.2 Service Area Definitions

The service area designation defines the area of growth, allows an estimate of service demand arising from the growth within the area, and permits the development of a capital improvements plan to meet service needs. The law provides that, in lieu of adopting land use assumptions for each service area, a political subdivision may adopt system-wide land use assumptions for the purpose of imposing impact fees. A political subdivision is not required to adopt additional land use assumptions for smaller service areas for water supply, treatment and distribution, or wastewater collection and treatment facilities. The Everman city limits and ETJ are used for the derivation of the maximum impact fees for water and sanitary sewer facilities.

For roadway facilities, the Local Government Code specifies that the service area is limited to the corporate boundaries of the political subdivision and shall not exceed six miles. The corporate boundary for the City falls completely within the six-mile radius. Therefore, the roadway facilities will have only one service area.

5.2.3 Land Use Assumptions

Population and Land Use Assumptions were discussed in Section 2.0 of this report. Population projections in Section 2.0 show projected growth that is consistent with recent developer interest in the area and with recent growth trends. These projections are used to determine the anticipated utilities required to serve these areas of growth in the City of Everman



5.2.4 Water and Sanitary Sewer Usage and Measurement

The City and ETJ water and sanitary sewer projections were based on current usage and population forecasts. These requirements are expressed in terms of average daily flow, maximum daily flow, and peak hourly flow. Also considered were pumping capacity, pumping requirements, existing storage capacity, TCEQ requirements and existing line sizes.

Equivalent Dwelling Unit (EDU) equivalencies for various meter types and sizes are presented below. This EDU equivalency system is recommended for use in assessing impact fees.

Meter Type	Meter Size	Continuous Duty Maximum Rate (gpm)	Ratio to 5/8" Meter (Equiv. # of EDU's)
Simple	5/8" x 3/4"	10	1.0
Simple - Residential	3/4"	15	1.0
Simple - Commercial	3/4"	15	1.5
Simple	1"	25	2.5
Simple	1 1/2"	50	5.0
Simple	2"	80	8.0
Compound	2"	80	8.0
Turbine	2"	160	16.0
Compound	3"	175	17.5
Turbine	3"	350	35.0
Compound	4"	300	30.0
Turbine	4"	650	65.0

SOURCE: AWWA Standards C700, C701, C702, C703

Note: The City of Everman is setting a standard residential meter to a 3/4" Meter Size. For the purpose of this study, a 3/4" residential meter is set to be the equivalent of 1 EDU

This study presents water and sanitary sewer impact fees on an EDU basis, which is defined as consumption by a typical single-family household with a 5/8" water meter. The City of Everman uses a standard residential meter of 3/4", therefore, a 3/4" residential meter is also considered 1 EDU. A twelve-month history was provided by Everman for residential water consumption. Based on this information, the average daily usage per connection was found to be 199 gallons/connection.



5.2.5 Projected Water and Sanitary Sewer Demands

Demand for the service area within the next 10 years (2022-2032) was determined using the City of Everman's Land Use Assumptions in conjunction with regional population forecasts and the estimated demand per acre for each land use type. As required by Section 395.014 of the Local Government Code, projected demands for capital improvements required by new service units are projected over a 10-year period in this study. These calculations have been utilized in calculating both the facility sizes and applicable impact fee relative to the projects.

5.3 Impact Fee Determination Methodology

For purposes of this study, water and sanitary sewer costs are defined for a common measurement of capacity and demand; that service unit of measurement is an EDU. Each service unit has a capital cost associated with the comprehensive group of facilities required to provide service (transmission, pumpage, storage, etc.). This value is the Construction Cost of Service.

5.4 Methods for Recovering Costs of Service

Generally speaking, costs can be financed through either the public sector or the private sector. Financing through the public sector is primarily accomplished by bonding projects and recovering costs through utility rates for water and sewer. Financing through the private sector occurs when a developer or builder contributes assets, either facilities or cash, and passes along this cost (including carrying and financing costs) to the ultimate user of the development. An impact fee is one mechanism for private financing.

As mentioned in Section 7.2.1, the CIP must include a plan for awarding credit either for tax and utility revenues generated by new customers, or for 50% of the total cost of implementing the CIP. For the purposes of this study, the 50% credit was used.

5.5 Derivation

The projects eligible for impact fee consideration are shown on Tables 5-1, and 5-2. These tables summarize construction costs, and impact fee allocations for each project. Many of the proposed CIP projects have capacities in excess of the growth requirements for the study period. The ultimate design capacity of these projects was evaluated against the capacity required by the projected growth to determine the prorated value during the study period. Therefore, only the value (cost) of the facility capacities needed to support growth during the study period is considered in the impact fee determination.



5.6 Maximum Impact Fee Calculation

Table 5-3 shows the derivation of the maximum fees for water, and sanitary sewer. A summary of these impact fees is listed below.

Maximum Water Impact Fee	\$3,193 (per EDU)
Maximum Sanitary Sewer Impact Fee	\$2,410 (per EDU)

The maximum allowable impact fee per EDU and meter size for water and sanitary sewer are shown below.

Meter Type	Meter Size	Ratio to 5/8" Meter (Equiv. # of EDU's)	Impact Fee for Water	Impact Fee for Sanitary Sewer
Simple	5/8" x 3/4"	1	\$3,193	\$2,410
Simple - Residential	3/4"	1	\$3,193	\$2,410
Simple - Commercial	3/4"	1.5	\$4,790	\$3,615
Simple	1"	2.5	\$7,983	\$6,025
Simple	1 1/2"	5	\$15,965	\$12,050
Simple	2"	8	\$25,544	\$19,280
Compound	2"	8	\$25,544	\$19,280
Turbine	2"	16	\$51,088	\$38,560
Compound	3"	17.5	\$55,878	\$42,175
Turbine	3"	35	\$111,755	\$84,350
Compound	4"	30	\$95,790	\$72,300
Turbine	4"	65	\$207,545	\$156,650

SOURCE: AWWA Standards C700, C701, C702, C703

Note: The City of Everman is setting a standard residential meter to a 3/4" Meter Size. For the purpose of this study, a 3/4" residential meter is set to be the equivalent of 1 EDU

6.0 CONCLUSION

6.1 Proposed Impact Fees

The scope of this report was to provide the City of Everman with capital improvements planning and maximum allowable Impact Fees for Water and Sanitary Sewer. Based on CobbFendley's recommendations, the City of Everman has completed the approval process as outlined in Chapter 395 of the Local Government Code and adopted impact fees as outlined in Table 5-3.

Table 3-1 - Water System CIP Projects & Costs

CIP #	Project Description	Ex. Dia (in)	New Dia (in)	Quantity	Units	Unit Cost	Construction Cost
W01	Replace the 6" Water Line along Bell Street with an 8" Water Line	6	8	2,400	LF	\$146	\$350,400
W02	Replace the 6" Water Line along Columbine Drive with an 8" Water Line	6	8	1,260	LF	\$164	\$206,640
W03	Replace the 6" Water Line along Wisteria Drive with an 8" Water Line	6	8	1,260	LF	\$164	\$206,640
W04	Replace the 6" Water Line along Southway Drive with an 8" Water Line	6	8	420	LF	\$156	\$65,520
W05	Replace GST #2 at Townley Drive	-	-	1	LS	\$237,200	\$237,200
W06	Install Well # 9	-	-	1	LS	\$1,300,000	\$1,300,000
W07	Replace the 6" Water Line along Race Street with a 12" Water Line	6	12	1,250	LF	\$232	\$290,000
W08	Replace the 6" Water Line along Christie Avenue with a 6" Water Line	6	6	1,500	LF	\$135	\$202,500
W09	Replace the 2" Water Line along Pittman Avenue with a 6" Water Line	2	6	265	LF	\$135	\$35,775
W10	Replace the 4" Water Line along Vaden Avenue with a 6" Water Line	4	6	570	LF	\$135	\$76,950
W11	Replace the 6" Water Line along Neill Avenue with a 6" Water Line	6	6	730	LF	\$135	\$98,550
W12	Replace the 6" Water Line along Johnson Avenue with a 6" Water Line	6	6	850	LF	\$135	\$114,750
W13	Replace the 3" Water Line along E Barron Avenue with a 6" Water Line	3	6	660	LF	\$135	\$89,100
W14	Replace the 4" Water Line along Vaughn Avenue with a 6" Water Line	4	6	1,230	LF	\$135	\$166,050
W15	Construct an 8" Water Line along Roy C Brooks Blvd	-	8	2,000	LF	\$164	\$328,000
W16	Replace the 6" Water Line along E Enon Avenue with an 8" Water Line	6	8	3,500	LF	\$164	\$574,000
W17	Install Well # 10	-	-	1	LS	\$1,300,000	\$1,300,000
W18	Impact Fee Study (Water System)	-	-	1	LS	\$25,000	\$25,000

\$5,667,075

Table 4-1 - Wastewater System CIP Projects & Costs

CIP #	Project Description	Ex. Dia (in)	New Dia (in)	Quantity	Units	Unit Cost	Construction Cost
S01	Replace the 6" Sewer Line along Christie Avenue with a 6" Sewer Line	6	6	1,225	LF	\$110	\$134,750
S02	Replace the 6" Sewer Line along Pittman Avenue with a 6" Sewer Line	6	6	170	LF	\$110	\$18,700
S03	Replace the 6" Sewer Line along Vaden Avenue with a 6" Sewer Line	6	6	500	LF	\$110	\$55,000
S04	Replace the 6" Sewer Line along Neill Avenue with a 6" Sewer Line	6	6	660	LF	\$110	\$72,600
S05	Replace the 6" Sewer Line along Johnson Avenue with a 6" Sewer Line	6	6	800	LF	\$110	\$88,000
S06	Construct an 8" Sewer Line along Noble Avenue	-	8	860	LF	\$145	\$124,700
S07	Replace the 6" Sewer Line along Noble Avenue with an 8" Sewer Line	6	8	890	LF	\$145	\$129,050
S08	Construct a 10" SDR-26 Gravity Sewer Pipe at Drainage Area 4A	-	10	2,500	LF	\$216	\$540,000
S09	Construct a 6" SDR-26 Gravity Sewer Pipe at E Enon Rd	-	6	4,000	LF	\$110	\$440,000
S10	Impact Fee Study (Wastewater System)	-	-	1	LS	\$25,000	\$25,000

\$1,627,800

Table 5-1 - Water System Impact Fee Allocation

CIP #	Project Description	Ex. Dia (in)	New Dia (in)	Quantity	Units	Unit Cost	Construction Cost	Percent Utilization			Impact Fee Eligible
								2022	2032	2022-2032	
WE01	Install Well # 8 (existing facility)	-	-	1	LS	\$925,000	\$925,000	76%	100%	24%	\$222,000
W06	Install Well # 9	-	-	1	LS	\$1,300,000	\$1,300,000	76%	100%	24%	\$312,000
W15	Construct an 8" Water Line along Roy C Brooks Blvd	-	8	2,000	LF	\$164	\$328,000	20%	100%	80%	\$262,400
W16	Replace the 6" Water Line along E Enon Avenue with an 8" Water Line	6	8	3,500	LF	\$164	\$574,000	56%	100%	44%	\$252,560
W17	Install Well # 10	-	-	1	LS	\$1,300,000	\$1,300,000	76%	100%	24%	\$312,000
W18	Impact Fee Study (Water System)	-	-	1	LS	\$25,000	\$25,000	0%	100%	100%	\$25,000
							\$6,241,675				\$1,385,960

Table 5-2 - Wastewater System Impact Fee Allocation

CIP #	Project Description	Ex. Dia (in)	New Dia (in)	Quantity	Units	Unit Cost	Construction Cost	Percent Utilization			Impact Fee Eligible
								2022	2032	2022-2032	
S06	Construct an 8" Sewer Line along Noble Avenue	-	8	860	LF	\$145	\$124,700	0%	100%	100%	\$124,700
S07	Replace the 6" Sewer Line along Noble Avenue with an 8" Sewer Line	6	8	890	LF	\$145	\$129,050	59%	100%	41%	\$52,911
S08	Construct a 10" SDR-26 Gravity Sewer Pipe at Drainage Area 4A	-	10	2,500	LF	\$216	\$540,000	0%	100%	100%	\$540,000
S09	Construct a 6" SDR-26 Gravity Sewer Pipe at E Enon Rd	-	6	4,000	LF	\$110	\$440,000	31%	100%	69%	\$303,600
S10	Impact Fee Study (Wastewater System)	-	-	1	LS	\$25,000	\$25,000	0%	100%	100%	\$25,000
							\$1,627,800				\$1,046,211

TABLE 5-3
City of Everman Impact Fee Calculation
Impact Fee Derivation

WATER SYSTEM IMPACT FEE

$$\begin{aligned}
 \text{Maximum Impact Fee} &= \frac{\text{Eligible Existing Project Costs Plus Eligible Proposed Project Costs}}{\text{Increase of Equivalent Dwelling Units Over Next 10 Years}} \\
 &= \frac{\$222,000 + \$ 1,163,960.00}{217} = \frac{\$1,385,960.00}{217} = \$6,386.91 \\
 \\
 \text{Maximum Allowable Impact Fee for Water} &= \$6,386.91 \times 50\% = \$ 3,193 \\
 \text{Per EDU} &
 \end{aligned}$$

SANITARY SEWER SYSTEM IMPACT FEE

$$\begin{aligned}
 \text{Maximum Impact Fee} &= \frac{\text{Eligible Existing Project Costs Plus Eligible Proposed Project Costs}}{\text{Increase of Equivalent Dwelling Units Over Next 10 Years}} \\
 &= \frac{\$0.00 + \$ 1,046,210.50}{217} = \frac{\$ 1,046,210.50}{217} = \$4,821.25 \\
 \\
 \text{Maximum Allowable Impact Fee for Sanitary Sewer} &= \$4,821.25 \times 50\% = \$ 2,410 \\
 \text{Per EDU} &
 \end{aligned}$$

City of Everman, Texas

2022 Land Use Assumptions for Impact Fees

March 2022



Prepared by:

Stephen A. Cook, AICP

Purpose

Chapter 395 of the Texas Local Government Code describes the procedure Texas municipalities must follow in order to assess impact fees for new development. A primary step in the process is the development of Land Use Assumptions. These Land Use Assumptions, including both population and employment estimate, form the basis for the development of impact fee Capital Improvement Plans for wastewater and water facilities.

In order for the City of Everman to reasonably estimate the future needs of water and wastewater capital improvements to serve future development, an estimation of future growth is required. The purpose of this report is to examine existing development, identify future growth areas and provide an estimate of future growth based on this data and growth projection assumptions.

Land Use Assumptions Report Elements

This report contains the following components:

- **Methodology** – Explanation of the general methodology used to prepare the land use assumptions.
- **Data Collection and Service Area** – Explanation of data collection from existing land use and future growth areas into vacant and underdeveloped parcels.
- **Historical Data** – Information on historic population trends for Everman.
- **Growth Assumptions** – Population and employment growth assumptions for buildout and ten years by the impact fee service area.
- **Summary** – Brief synopsis of the land use assumptions report.

Methodology

Based upon the growth assumptions and the capital improvements needed to support growth, it is possible to develop an impact fee structure which fairly allocates improvement costs to the service area in relationship to their impact upon the entire infrastructure system. The data in this report has been formulated using reasonable and generally accepted planning principles for the preparation of impact fee systems in Texas.

These land use assumptions and future growth projections take into consideration several factors influencing development patterns, including the following:

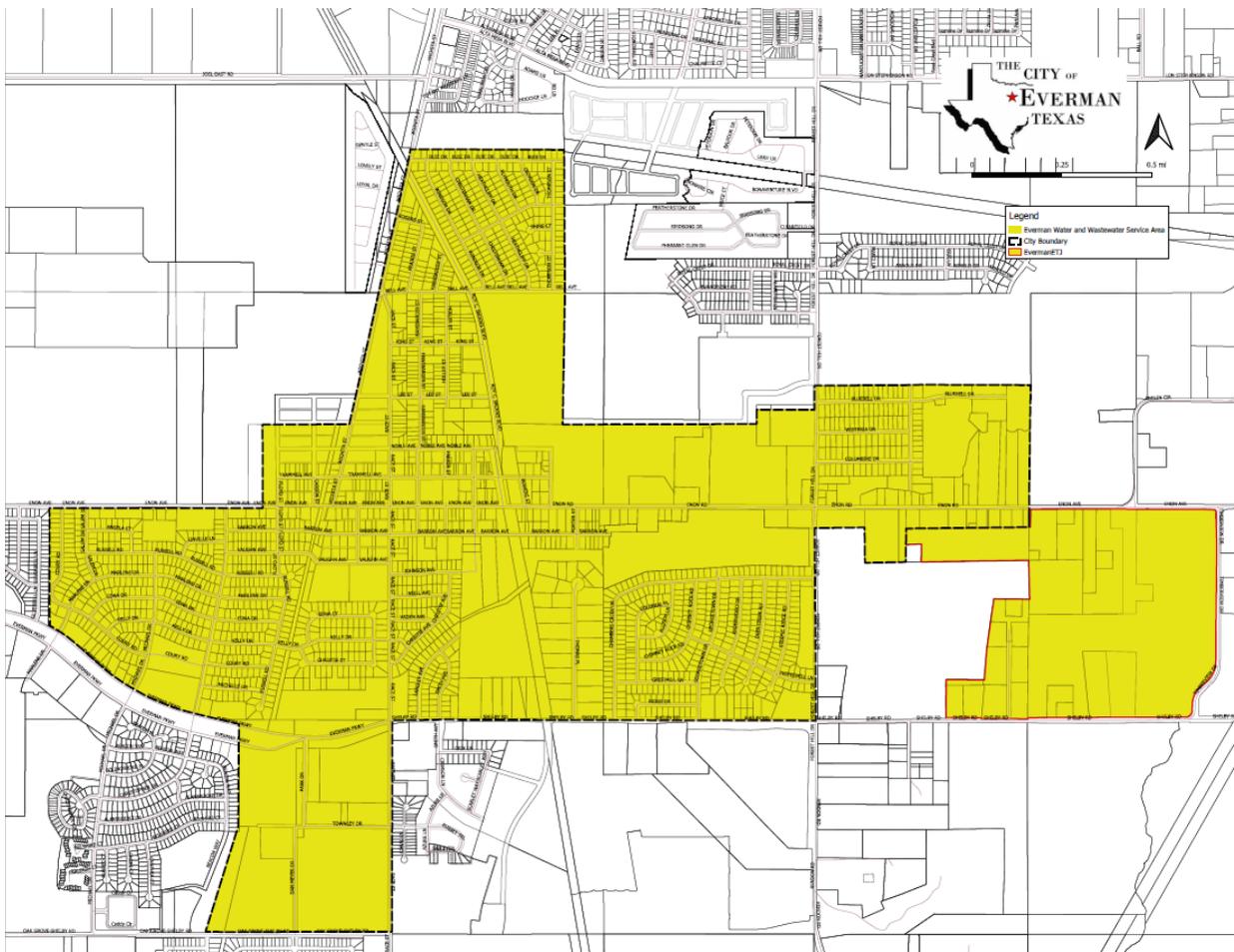
- The character, type, density, and quantity of existing development.
- Anticipated future land use (City's Future Land Use Plan Map).
- Availability of land for future expansion.
- Current and historical growth trends of population and development within the city.
- Location and configuration of vacant land.
- The following tasks were developed in order to achieve this information.
 1. Update service area boundaries in accordance with State Law requirements.
 2. Determine baseline conditions for population and employment.
 3. Project the ultimate buildout population and employment.
 4. Project population and employment growth for the next ten years.

Service Area

According to Chapter 395 of the Local Government Code, a Service Area refers to the area within the corporate boundaries or extraterritorial jurisdiction of the political subdivision to be served by the capital improvement or facilities specified in the Capital Improvement Plan. Funds collected in the specific service areas must be spent in the service area collected.

Water and Wastewater Impact Fee Service Areas The geographic boundaries of the impact fee service area for water and wastewater facilities are shown in Figure 1.1. A single service area boundary is defined for both water and wastewater facilities.

Figure 1.1 Water and Wastewater Service Area



Historical Data

The baseline population for the City of Everman as of April 1, 2020, is 6,154 as per the U.S. Bureau of Census as part of the Census 2020. Table 1 shows the population history for Everman from the 2010 U.S. Census through the population total for April 1, 2020.

Year	Population	% Growth
2010	6108	
2011	6103	-0.08%
2012	6128	0.41%
2013	6192	1.04%
2014	6213	0.34%
2015	6279	1.06%
2016	6312	0.53%
2017	6321	0.14%
2018	6252	-1.09%
2019	6255	0.05%
2020	6154	-1.61%

Table 1.1 Everman Population Estimates – US Bureau of Census

The population of Everman has fluctuated over the past ten years as few new housing units have been constructed over that time period. It reflects a community which has maximized its available residential land for development. There are some areas which are currently used for agricultural purposes which could potentially increase the population. The City has claimed an area to the southeast bounded by Enon Avenue, Shelby Road and Timberview Drive as Extra-Territorial Jurisdiction. Extra-territorial jurisdiction are areas where municipalities have the ability to potentially annex into the community following State Law. The population of this area is estimated to be approximately 60 persons based on 18 single family housing units contained within the area.

Employment Data – Everman has most of its employment base in production, transportation, and material moving occupations. The second highest employment is in education through the school district and employment with municipal government. The estimated employment numbers from 2010-2019 through the U.S. Census Bureau American Community Survey annual update. Employment has increased over that time a total of 4%. Due to the limited nature of additional areas available for non-residential growth and development in the City, an assumption of a continued 4% growth over a ten-year time period would be reasonable.

Year	Employment Estimate
2010	2463
2011	2634
2012	2461
2013	2629
2014	2603
2015	2611
2016	2614
2017	2581
2018	2458
2019	2555

Table 1.3 Total Employment Estimates Everman

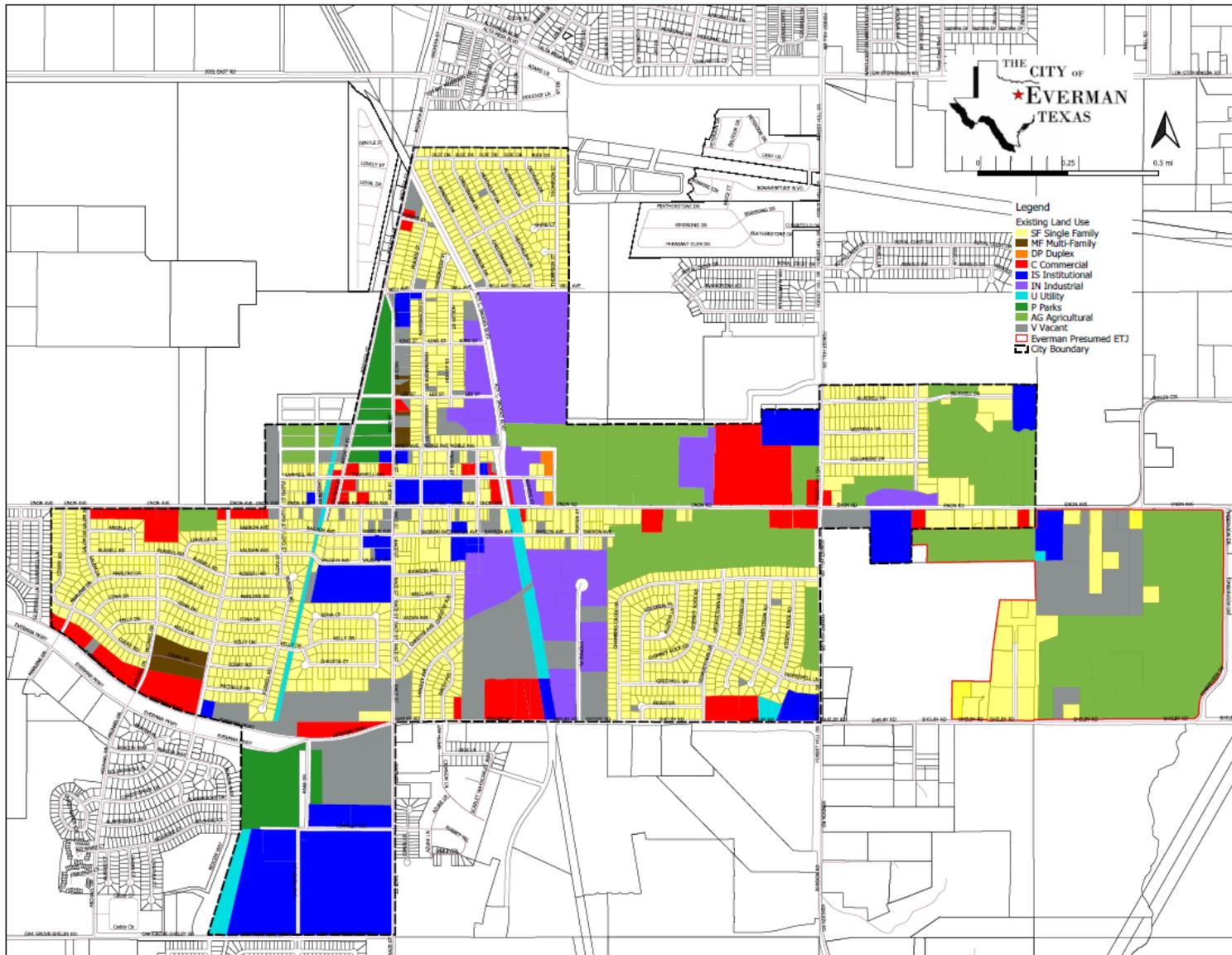
Growth Assumptions

Calculating growth of the City must be based on the available area remaining in the community for future development. How much additional residential and employment areas may be developed resulting in additional population and employment growth.

Holding Capacity – Holding Capacity of a community is a calculation comparing existing land use data from the City that is assigned as vacant (potential to be developed) with existing zoning and developed properties. A sum of the total vacant land area and properties which may be agricultural now but could have the potentiality for redevelopment in the future is then created. For each area, a total potential number of housing units is assigned based on the maximum number of units (or minimum lot size) allowed within the City. In 2015, as part of the City of Everman's Comprehensive Plan holding capacity was calculated using the minimum density allowed at current zoning levels. Housing units are then multiplied by the observed average household size for owner-occupied units to indicate a population projection. At that time, it was estimated that the City could have the potential of an additional 145 dwelling units based on the existing zoning – which would result in an additional population of 470 persons based on the 3.22 persons per dwelling unit estimate at that time.

Utilizing updated existing land use data and modifications to the zoning map made since that time a new holding capacity model has been developed for the City of Everman.

Figure 1.2 Existing Land Use Updated 2022



Certain assumptions must be made based on the ultimate additional build-out number:

- All future and existing residential properties are assumed to be 100% occupied.
- Existing areas zoned residential will remain static throughout build-out.
- An area consisting of 34.7 acres southwest of Roy C. Brooks Boulevard and E. Bell Avenue will be developed at approximately 5.8 units per acre for a total of 202 dwelling units.
- Commercial areas of the City would be built-out.
- All vacant and agricultural land potentially used for residential would build out at maximum density the zoning allows.
- Zoning districts not zoned for residential and containing vacant land were eliminated from this calculation.
- Areas designated as floodplain and "vacant" were eliminated from the calculation, leaving only developable land for the projection.
- Areas of Extra-Territorial Jurisdiction were assumed to develop at the AG zoning level.
- The average household size in Everman according to the US Bureau of Census is 3.22 persons per household. This is the multiplication factor for projecting population based on possible number of units.

The updated model now shows an ultimate buildout of an additional 313 housing units with an additional 1008 persons added to the population.

Holding Capacity Vacant / AG Land	Vacant Acres	Potential Units	Potential Population Increase
Zoned A-1	10.2	51	165
Zoned A-2	5.4	27	86
Zoned AG	78.4	19	62
New Residential Development	34.7	202	650
Extra-territorial Jurisdiction	55.34	14	45
Total Land Vacant / AG Non-Floodplain	94	313	1008

Table 1.2 Everman Holding Capacity Model 2022 – Stephen A. Cook, AICP

The non-residential areas of the City of Everman have been developed in a corridor format with a few industrial centers. There are very few areas available for non-residential development as currently planned for the City. Commercially zoned properties along N. Race Street, Everman Parkway, Shelby Road and the industrial area on Thomas Place provide the greatest amount of opportunity for the community to increase retail, commercial, and employment growth. With limited area for growth an assumption of continued 4% growth of employment over the next 10 years is anticipated.

Summary

The Land Use Assumptions for Water and Wastewater Impact Fees for the City of Everman include the following:

- The Service Area for both Water and Wastewater is the corporate limits of the City of Everman, areas of Extra-Territorial Jurisdiction.
- The 10-year population projection for the City is 6,852 with a build out population of 7,162.
- The 10-year employment projection for the City is 2,657 with a built-out employment of 2,763.