2023 Update of the Water and Wastewater Impact Fees of the City of Boerne

Prepared for:

Prepared by:

HDR Engineering, Inc.
4401 West Gate Blvd, Suite 400
Austin, Texas 78745

January 2023

Table of Contents

List of Figures

List of Tables

1.0 Introduction and Summary

The City of Boerne (City) is in the process of updating its water and wastewater impact fees to keep the fee current with its service area and updated CIP information. This report presents HDR Engineering, Inc.'s (HDR) maximum impact fee determination for consideration by the City's Capital Improvements Advisory Committee and the Boerne City Council.

Chapter 395 of the Texas Local Government Code requires an impact fee analysis before impact fees can be created or updated and assessed. Chapter 395 defines an impact fee as "a charge or assessment imposed by a political subdivision against new development in order to generate revenue for funding or recouping the costs of capital improvements or facility expansions necessitated by and attributable to the new development." 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); and
- Projected interest charges and other financing costs for projects identified in the CIP.

Chapter 395 also identified 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 in 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.

The methodology to determine the maximum fee amount considers two options. Consistent with State law, each fee component is calculated with either: (1) consideration of a credit for other methods of payments for utility capital by a new customer, such as through utility rates or taxes, or alternatively, (2) a reduction of the maximum fee amount equal to 50% of the unit capital cost of providing new service. By maximum amounts, this means that the determined fee amount was calculated as the highest that can be lawfully levied by the City, given the prospective land uses and capital improvements plan, the cost of existing and new utility capacity, and consideration of a credit to new customers for capital contributions made through rate payments. The City Council can decide to enact fees less than the maximum amounts shown in this report.

As detailed later in this report, the maximum impact fees were developed in component pieces. For instance, the overall water fee is comprised of separate amounts for water supply, treatment, pumping, elevated storage, ground storage, and transmission. This will facilitate the consideration of offsets or credits from the applicable fee if a developer builds and dedicates eligible facilities to the City or the City provides wholesale service to a neighboring utility and wishes to charge only certain portions of the fee. The maximum fee amounts do not include capital costs for facilities required to be provided by developers at their own expense.

Planning, service demand, and design factor assumptions used in the water and wastewater facility sizing and costing were provided by the City. Data on current utility demand, existing utility assets, needed future facilities, outstanding utility debt, and prospective cash versus debt financing were obtained from or coordinated with the City of Boerne staff. HDR combined these elements into the maximum impact fee calculations presented in this report.

2.0 Utility Service and Fee Application Area

The City's extraterritorial jurisdiction (ETJ) is the City's existing and anticipated 10-year future water and wastewater service area (shown in Figure 1) in which existing and projected land uses, water and wastewater utility demands, and capital improvements needs were assessed.

These fee application areas in its ETJ would be the locations in which Boerne may levy the impact fees, in-part or in-full, if City service is provided. This includes the area served by WCID #2. In addition to the ETJ boundary, the City also provides service to WCID #4 and has

an agreement to collect impact fees from this area, thus this area is also included in the impact fee boundary. This boundary does not, however, imply a legal obligation of the City to serve beyond its incorporated limits. If the City does not provide service, in-full or in-part, then the impact fees would not apply.

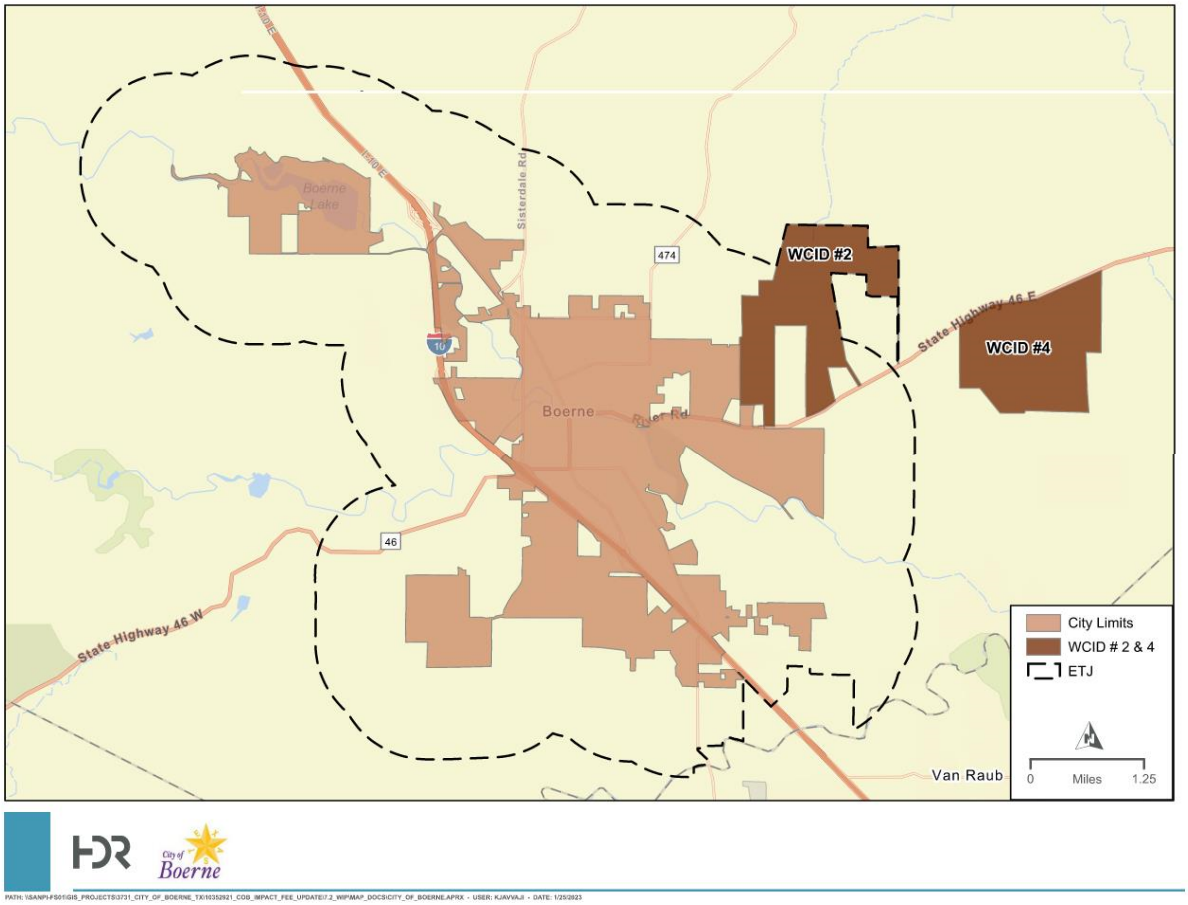


Figure 1. Water and Wastewater Impact Fees Application Area

3.0 Land Use Assumptions

Table 1 provides an estimate of the current and future land use patterns of the potential water and wastewater service area with information obtained from the 2018 Master Plan. This data was adjusted to account for estimated growth patterns since the plan's completion. This was then modified to show potential changes in land use over a 10-year pattern consistent with the projected land uses in the 2018 Master Plan. Maps of the current and future (10-year) land uses as developed in the 2018 Master Plan are included as Appendix A. About 45.2% of the total impact fee area is currently in residential land uses with 10.0% in commercial or industrial uses. It is estimated that 39.7% of the land area within the impact fee boundary is agricultural, undeveloped, or in open space use.

Table 1.
Current and Projected Land Use

Item	Current		Future (Including ETJ)	
	Acres	%	Acres	%
Rural Residential	3,750	13.4%	3,500	12.5%
Single-Family Residential	8,000	30.4%	12,000	46.5%
Multi-Family Residential	250	0.9%	400	1.4%
Mobile/Manufactured Homes	150	0.5%	150	0.5%
Commercial/Schools/Churches	2,750	9.8%	3,500	12.5%
Utility/Transportation	400	1.4%	500	1.8%
Industrial	60	0.2%	120	0.4%
Government Owned/Parks	1,000	3.6%	1,500	5.4%
Agricultural/Undeveloped/Open Space	10,473	39.7%	5,163	19.0%
Total Land Use Acreage	**26,833**	**100%**	**26,833**	**100%**

Source: Adapted from Boerne 2018 Master Plan – Technical Plan, August 28, 2018.
Land values have been projected from those contained in the plan to be consistent with recent and current growth forecast. Acreage includes the land area of WCID #4.

Over time as the City grows into the planning area, developed land areas will both increase and become a higher percentage of overall land uses. Projected residential land uses are expected to increase to 60.9% of total potential service land area and commercial/industrial land use is expected to increase to 12.9% of total land use. Also during this time, the City is likely to experience some growth in other supporting land use types such as utility uses and other

government owned land. It is projected that agricultural, undeveloped land or open space will shrink to 19.0% of the total planning area over the 10-year planning period.

Table 2 shows the current population as well as the projected future population for both the water and wastewater utilities' service area. These were developed to be consistent with the recently completed water demand study.

Table 2.
Water and Wastewater Service Area Population

Utility	2022	2032	% Increase
Water	23,981	37,563	56.6%
Wastewater	22,217	34,745	56.4%

4.0 Current and Projected Utility Demand and Supply

Table 3 relates the number of water and wastewater utility connections by water meter size and what is termed a Living Unit Equivalent (or LUE) conversion factor for meters of varying sizes. The values in Table 3 represent the number of LUEs as of June 2022. The standard meter size for a single-family residential house in Boerne is a 5/8" water meter, which is considered to be one LUE.

Based on American Water Works Association standards, the equivalent number of 5/8" meters can be determined for water meters of larger size. In this manner, meters of larger size (i.e., larger potential service demands) can be presented in terms of the equivalent demand of a number of typical single family homes. For this reason, the LUE concept is a useful tool for being able to apply a base fee amount to service requests of varying meter sizes.

Tables 4 and 5 summarize the City's current and projected water and wastewater service demands and existing supply (service) capabilities by facility. Current and future service demands are also compared with the existing service capacity of the utility systems.

Water demand was forecast using population forecasts from the City of Boerne Supply and Demand Assessment completed in October 2022, water use factors have been determined from City billing data, and meter count/LUE estimates from the City Utility Billing Section. The water demand and wastewater demands are also consistent with recent modeling data to determine the future water and wastewater capital improvement program.

With the anticipated growth of the City and surrounding area, potable water utility demand in certain service areas is expected to exceed the existing capacity of water treatment, water pumping, ground storage, and elevated water storage. The City has identified a 10-year water CIP to meet all needs during the planning period, including additional water treatment, water pumping, and ground storage projects. A need for additional wastewater treatment and wastewater pumping capacity was also identified. The City is planning to add additional wastewater treatment and wastewater pumping capacity in the next 10-years. In addition, the City has identified wastewater interceptor projects within the future 10-year period that will be needed to service additional growth in certain portions of the wastewater service area.

Table 3.
LUE Equivalent Conversion Factors

Water Meter Size	*Living Units Equivalent (LUEs) per Meter (a)*	*Number of Meters in 2022 (b)*	*Number of LUEs in 2022*
Water			
5/8"	1.0	6,780	6,780
3/4"	1.5	169	254
1"	2.5	119	298
1.5"	5.0	91	455
2"	8.0	198	1,584
3"	16.0	24	384
4"	25.0	11	275
6"	50.0	5	250
8"	80.0	1	80
Total Water		**7,398**	**10,359**
Reclaimed Water			
5/8"	1.0	569	569
3/4"	1.5	0	0
1"	2.5	0	0
1.5"	5.0	10	50
Total Reclaimed		**579**	**619**
Wastewater (c)			
5/8"	1.0	6,272	6,272
3/4"	1.5	156	234
1"	2.5	110	275
1.5"	5.0	84	420
2"	8.0	183	4,464
3"	16.0	22	352
4"	25.0	10	250
6"	50.0	5	250
8"	80.0	1	80
Total Wastewater		**6,843**	**9,597**

(a) Derived from AWWA C700-C703 standards for continuous rated flow performance scaled to 5/8" meter.

(b) Source: City of Boerne, meter count as of June 2022.

(c) Based on water meter size.

Table 4.
Estimated Water Service Demands and Available Capacity

Facility Type	*2022*	*2032*	*10-yr Demand Increment*
Supply			
Existing 2022 Capacity (mgd) *	5.600	5.600	
Est. Service Demand	3.543	5.549	2.007
Excess (Deficiency)	2.057	0.051	
Existing 2022 Capacity (LUEs) *	16,374	16,374	
Est. Service Demand	10,359	16,226	5,867
Excess (Deficiency)	6,015	148	
Treatment			
Existing 2022 Capacity (mgd)	9.700	9.700	
Est. Service Demand	7.334	11.487	4.154
Excess (Deficiency)	2.366	(1.787)	
Existing 2022 Capacity (LUEs) *	13,702	13,702	
Est. Service Demand	10,359	16,226	5,867
Excess (Deficiency)	3,343	(2,524)	
Pumping			
Existing 2022 Capacity (mgd)	8.200	8.200	
Est. Service Demand	8.857	13.873	5.016
Excess (Deficiency)	(0.657)	(5.673)	
Existing 2022 Capacity (LUEs) *	9,591	9,591	
Est. Service Demand	10,359	16,226	5,867
Excess (Deficiency)	(768)	(6,635)	
Ground Storage			
Existing 2022 Capacity (mg)	4.000	4.000	
Est. Service Demand	3.543	5.549	2.007
Excess (Deficiency)	0.457	(1.549)	
Existing 2022 Capacity (LUEs) *	11,696	11,696	
Est. Service Demand	10,359	16,226	5,867
Excess (Deficiency)	1,337	(4,530)	
Elevated Storage			
Existing 2022 Capacity (mg)	1.700	1.700	
Est. Service Demand	1.554	2.434	0.880
Excess (Deficiency)	0.146	(0.734)	
Existing 2022 Capacity (LUEs) *	11,333	11,333	
Est. Service Demand	10,359	16,226	5,867
Excess (Deficiency)	974	(4,893)	
Transmission			
Existing 2022 Capacity (mgd)	26.600	26.600	
Est. Service Demand	12.400	19.423	7.023
Excess (Deficiency)	14.200	7.177	
Existing 2022 Capacity (LUEs) *	22,222	22,222	
Est. Service Demand	10,359	16,226	5,867
Excess (Deficiency)	11,863	5,996	

Table 4 (cont.).
Estimated Water Service Demands and Available Capacity

Facility Type	*2022*	*2032*	*10-yr Demand Increment*
Reclaimed Water			
Existing 2022 Capacity (mgd)	7.400	7.400	
Est. Service Demand	0.836	4.518	3.682
Excess (Deficiency)	6.564	2.882	
Existing 2022 Capacity (LUEs) *	5,481	5,481	
Est. Service Demand	619	3,347	2,728
Excess (Deficiency)	4,862	2,135	
* Assume LUE conversion factor of :	342	gpd/LUE for wtr supply facilities	
	708	gpd/LUE for treatment	
	855	gpd/LUE for pumping	
	342	gals/LUE for ground storage	
	150	gals/LUE for elevated storage	
	1,197	gpd/LUE for transmission	
	1,350	gpd/LUE for reclaimed water	

Table 5.
Estimated Wastewater Service Demands and Available Capacity

Facility Type	*2022*	*2032*	*10-yr Demand Increment*
Treatment			
Existing 2022 Capacity (mgd) *	2.900	2.900	
Est. Service Demand	2.591	4.052	1.461
Excess (Deficiency)	0.309	(1.152)	
Existing 2022 Capacity (LUEs) *	10,741	10,741	
Est. Service Demand	9,597	15,009	5,412
Excess (Deficiency)	1,144	(4,268)	
Pumping			
Existing 2022 Capacity (mgd)	1.300	1.300	
Est. Service Demand**	1.296	2.026	0.731
Excess (Deficiency)	0.004	(0.726)	
Existing 2022 Capacity (LUEs) *	1,926	1,926	
Est. Service Demand	1,929	3,002	1,082
Excess (Deficiency)	7	(1,076)	
Interceptors			
Existing 2022 Capacity (mgd)	24.500	24.500	
Est. Service Demand	9.069	14.183	5.114
Excess (Deficiency)	15.431	10.317	
Existing 2022 Capacity (LUEs) *	25,926	25,926	
Est. Service Demand	9,597	9,597	5,412
Excess (Deficiency)	16,329	10,917	
* Assume LUE conversion factor of :	270	gpd/LUE for ww treatment	
	675	gpd/LUE for ww pumping	
	945	gpd/LUE for interceptors	
** Assumes:	20.0%	of ww demand pumped	

5.0 Identified Major Capital Improvement Needs and Costs

Given the projected growth in water and wastewater demands, existing capacity, and the modeling of infrastructure needs, various additional facilities have been identified to meet the needs for the next 10 years. The City's 10-year capital need for new capacity totals $32.8 million for water and $35.3 million for wastewater (see Appendix B). It is important to note that not all this cost is assigned to new customers in the 10-year planning period.

Given the growth facing the City in the next ten years, improvements are needed in the areas of water, supply, water treatment, pumping, and expansion of the reclaimed water system. Boerne will also need noticeable improvements to its wastewater system, including wastewater treatment plant expansions, pumping and wastewater interceptors that would serve future growth.

Specific projects that accomplish these service capacity goals are identified in Tables 6a and 6b along with their cost and allocation of existing and projected demand to these facilities. The 2022 percent utilization is the portion of a project's capacity required to serve existing development. It is not included in the impact fee eligible analysis and cost calculation. The 2032 percent utilization is the portion of the project's capacity that will be required to serve projected growth and existing customers in the City's service area in 2032. The difference between the 2032 and 2022 percent utilization is the portion of the project's capacity required to serve development from 2022 to 2032. This portion of the project's total cost that is used to serve development projected to occur from 2022 to 2032 is calculated as the total actual cost multiplied by the 2022 to 2032 percent utilization. Only this portion of the cost is used in the impact fee analysis. A weighted unit cost of service ($ per LUE) is then calculated by facility type, based on the proportionate share of use of existing versus new facility capacity by the growth anticipated over the next ten years.

Table 6a.
Water Cost Allocation

No.	Description of Project	Project Type	Percent Utilization 2022	Percent Utilization 2032	Percent Utilization 2022-2032	Project Cost	Cost Allocation Current Development	Cost Allocation 10-year (2022-2032)	Cost Allocation Beyond 2032
EXISTING PROJECTS									
1	Water Supply	Water Supply	50.7%	63.6%	12.9%	$ 10,711,173	$ 5,425,360.59	$ 1,381,867.25	$ 3,903,945.16
2	Water Treatment	Water Treatment	76.1%	100.0%	23.9%	$ 381,513	$ 290,371.24	$ 91,141.76	$ -
3	Water Pumping	Water Pumping	89.5%	100.0%	10.5%	$ 797,398	$ 713,625.95	$ 83,772.05	$ -
4	Ground Storage	Ground Storage	43.4%	65.0%	21.7%	$ 1,285,101	$ 557,219.79	$ 278,609.90	$ 449,271.31
5	Elevated Storage	Elevated Storage	54.2%	81.3%	27.1%	$ 868,652	$ 470,809.38	$ 235,404.69	$ 162,437.92
6	Water Transmission	Water Transmission	41.4%	62.0%	20.6%	$ 6,984,422	$ 2,893,546.26	$ 1,436,270.24	$ 2,654,605.50
7	Reclaimed	Reclaimed	33.9%	100.0%	66.1%	$ 2,991,728	$ 1,014,920.20	$ 1,976,807.80	$ -
Existing Project Totals						**$ 24,019,987**	**$ 11,365,853**	**$ 5,483,874**	**$ 7,170,260**
PROPOSED PROJECTS									
1	WTP Expansion	Water Treatment	0.0%	20.0%	20.0%	$ 20,000,000	$ -	$ 4,000,000	$ 16,000,000
2	Amman Road Water Tank & Pump Station	Water Pumping	0.0%	35.0%	35.0%	$ 2,240,000	$ -	$ 784,000	$ 1,456,000
3	GBRA Amman Road Main	Water Supply	0.0%	35.0%	35.0%	$ 2,570,000	$ -	$ 899,500	$ 1,670,500
4	WCID #4 Supply Main (Amman)	Water Supply	0.0%	50.0%	50.0%	$ 2,000,000	$ -	$ 1,000,000	$ 1,000,000
5	WCID #4 Supply Main (SH-46) - Oversizing	Water Supply	0.0%	50.0%	50.0%	$ 175,000	$ -	$ 87,500	$ 87,500
6	Reclaimed Main Transmission Upgrade	Reclaimed	0.0%	65.0%	65.0%	$ 1,050,000	$ -	$ 682,500	$ 367,500
7	Trails of Herff Ranch Reclaimed Main	Reclaimed	0.0%	15.0%	15.0%	$ 1,100,000	$ -	$ 165,000	$ 935,000
8	Reclaimed Water Elevated Storage	Reclaimed	0.0%	15.0%	15.0%	$ 1,800,000	$ -	$ 270,000	$ 1,530,000
9	SH-46 Main Bore	Reclaimed	0.0%	15.0%	15.0%	$ 200,000	$ -	$ 30,000	$ 170,000
10	WWTRC Storage Tank and Pumps	Reclaimed	0.0%	65.0%	65.0%	$ 1,660,000	$ -	$ 1,079,000	$ 581,000
Proposed Project Totals						**$ 32,795,000**	**$ -**	**$ 8,997,500**	**$ 23,797,500**

Project Type	10-Year Cost	Growth in LUEs	Cost/LUE
Water Supply	$ 3,368,867	5,867	$ 574
Water Treatment	$ 4,091,142	5,867	$ 697
Water Pumping	$ 867,772	5,867	$ 148
Ground Storage	$ 278,610	5,867	$ 47
Elevated Storage	$ 235,405	5,867	$ 40
Water Transmission	$ 1,436,270	5,867	$ 245
Reclaimed	$ 4,203,308	2,728	$ 1,541
Total Cost/LUE	**$ 14,481,374**	**5,867**	**$ 3,293**

Table 6b.
Wastewater Cost Allocation

No.	Description of Project	Project Type	Percent Utilization 2022	Percent Utilization 2032	Percent Utilization 2022-2032	Project Cost	Cost Allocation Current Development	Cost Allocation 10-year (2022-2032)	Cost Allocation Beyond 2032
EXISTING PROJECTS									
1	Wastewater Treatment	Wastewater Treatment	69.0%	100.0%	31.0%	$ 34,359,916	$ 23,696,493.79	$ 10,663,422.21	$ -
2	Wastewater Pumping	Wastewater Pumping	60.0%	85.0%	25.0%	$ 213,000	$ 127,800.00	$ 53,250.00	$ 31,950.00
3	Interceptors	Interceptors	43.3%	75.5%	32.2%	$ 9,538,579	$ 4,126,895.40	$ 3,071,811.77	$ 2,339,871.83
Existing Project Totals						**$ 44,111,495**	**$ 27,951,189**	**$ 13,788,484**	**$ 2,371,822**
PROPOSED PROJECTS									
1	1st WWTRC Expansion	Wastewater Treatment	0.0%	100.0%	100.0%	$ 8,805,000	$ -	$ 8,805,000	$ -
2	2nd WWTRC Expansion	Wastewater Treatment	0.0%	20.0%	20.0%	$ 14,000,000	$ -	$ 2,800,000	$ 11,200,000
3	South Cibolo Collector	Interceptors	0.0%	40.0%	40.0%	$ 7,000,000	$ -	$ 2,800,000	$ 4,200,000
4	Suggs Creek Sewer Main	Interceptors	0.0%	40.0%	40.0%	$ 2,250,000	$ -	$ 900,000	$ 1,350,000
5	School Lift Station 3rd Wet Well Addition	Wastewater Pumping	0.0%	30.0%	30.0%	$ 1,200,000	$ -	$ 360,000	$ 840,000
6	Trails of Herff Ranch Main	Interceptors	0.0%	50.0%	50.0%	$ 2,090,000	$ -	$ 1,045,000	$ 1,045,000
Proposed Project Totals						**$ 35,345,000**	**$ -**	**$ 16,710,000**	**$ 18,635,000**

Project Type	10-Year Cost	Growth in LUEs	Cost/LUE
Wastewater Treatment	$ 22,268,422	5,412	$ 4,115
Wastewater Pumping	$ 413,250	5,412	$ 76
Interceptors	$ 7,816,812	5,412	$ 1,444
Total Cost/LUE	**$ 30,498,484**	**5,412**	**$ 5,636**

6.0 Consideration of Other Methods of Capital Payment

For utilities that charge an impact fee, the new customer pays for capital in two ways: (1) initially through the up-front impact fee, and (2) over the longer-term through utility rate payments, where typically some portion of customer rate payments also funds capital projects.

The 77th Texas Legislature amended Chapter 395 of the Local Government Code to require either: (1) a calculated credit for rate payments be reflected in the fee amount, or (2) a credit equal to 50% of the total projected cost of the capital improvements plan be given in calculating the maximum fee amount.

Table 7 indicates the estimated cost per LUE that is projected to be borne in the utility rates by the average new customer. The rate credit calculation considered: (1) existing debt, (2) future debt payments incurred in the year in which the facilities would be built and financed, and (3) the projected LUEs at the mid-point year of the weighted average life of the debt for the facilities that are part of the impact fee calculation for each utility.

7.0 Alternative Impact Fee Calculations

Table 8 summarizes the unit capital cost of providing new service and the two alternative credit calculations for new customers. The alternative approach that calculates a specific rate credit (Option A) results in the maximum impact fee calculation of $2,509 per LUE for water and $5,120 per LUE for wastewater, totaling $7,629 per LUE.

As shown in Table 8, the alternative 50% of capital cost method for calculating a rate credit (Option B) results in a lesser water impact fee of $1,648 per LUE and wastewater fee of $2,819 per LUE, yielding an overall fee of $4,467 per LUE.

Table 7.
Existing or Anticipated Debt to be Paid through Utility Rates

Facility Type	*Est. Debt in Rates*	*Mid-Point LUEs*	*Est. Debt in Rates per LUE*
WATER UTILITY			
Supply			
Existing Debt	$ 146,394	13,293	$ 11
Series 2022-2032	679,048	13,293	51
Subtotal Water Supply	***852,442***		***62***
Treatment			
Existing Debt	0	13,293	0
Series 2022-2032	2,862,164	13,293	215
Subtotal Water Treatment	***2,862,164***		***215***
Pumping			
Existing Debt	123,691	13,293	9
Series 2022-2032	320,562	13,293	24
Subtotal Water Pumping	***444,254***		***33***
Ground Storage			
Existing Debt	198,845	13,293	15
Series 2022-2032	0	13,293	0
Subtotal Ground Storage	***198,845***		***15***
Elevated Storage			
Existing Debt	56,366	13,293	4
Series 2022-2032	0	13,293	0
Subtotal Elevated Storage	***56,366***		***4***
Transmission			
Existing Debt	218,417	13,293	16
Series 2022-2032	0	13,293	0
Subtotal Transmission Lines	***218,417***		***16***
Reclaimed Water			
Existing Debt	39,143	1,983	20
Series 2022-2032	831,459	1,983	419
Subtotal Reclaimed Water	***870,602***		***439***
Total Water			**$786**

Table 7 (cont.).
Existing or Anticipated Debt to be Paid through Utility Rates

Facility Type	*Est. Debt in Rates*	*Mid-Point LUEs*	*Est. Debt in Rates per LUE*
WASTEWATER UTILITY			
Treatment			
Existing Debt	$ 1,990,612	12,303	$ 162
Series 2022-2032	2,077,361	12,303	169
Subtotal WWTP	***4,067,974***		***331***
Pumping			
Existing Debt	288,859	12,303	23
Series 2022-2032	109,311	12,303	9
Subtotal Wastewater Pumping	***398,169***		***29***
Interceptors			
Existing Debt	860,296	12,303	70
Series 2022-2032	1,032,987	12,303	84
Subtotal Interceptors	***1,893,284***		***154***
Total Wastewater			**$517**
Total Water and Wastewater			**$1,302**

Table 8.
Derivation of Alternative Maximum Water and Wastewater Impact Fee Amounts

Item	Capital Cost of New Service per LUE	Optional Adjustments		Option A	Option B	Highest of Option A or B
		Option A Rate Credit	Option B 50% Cost Adjustment			
WATER						
Supply	$ 574	$ 62	$ 287	$ 512	$ 287	
Treatment	697	215	349	482	349	
Pumping	148	33	74	114	74	
Ground Storage	47	15	24	33	24	
Elevated Storage	40	4	20	36	20	
Transmission	245	16	122	228	122	
Reclaimed	1,541	439	770	1,102	770	
Allocated Impact Fee Study Cost	2			2	2	
Total Water	$3,294	$786	$1,646	$2,509	$1,648	**$2,509**
WASTEWATER						
Treatment	$ 4,115	$ 331	$ 2,057	$ 3,784	$ 2,057	
Pumping	76	32	38	44	38	
Interceptors	1,444	154	722	1291	722	
Allocated Impact Fee Study Cost	2			2	2	
Total Wastewater	$5,637	$517	$2,818	$5,120	$2,819	**$5,120**
TOTAL WATER/WASTEWATER	$8,931	$1,302	$4,464	$7,629	$4,467	**$7,629**

The fee methodology was replicated for each major facility type in the utility system (e.g., supply, treatment, pumping, elevated storage, ground storage, and transmission) so that the total fee amount is the sum of the component facility fees. This provides a basis for extending the fee to wholesale customers of the City or granting fee offsets if a developer cost-participates with the City on CIP projects.

For comparison purposes, the current impact fees of other near-by cities are listed in Table 9.

Table 9.
Area Impact Fee Comparison

City/Utility	*Water*	*Wastewater*	*Total*
New Braunfels Utilities	$19,448	$6,244	$25,692
Fair Oaks Ranch	$8,670	$6,069	$14,739
Boerne – Current	**$5,743**	**$3,814**	**$9,557**
Leander	$4,309	$4,452	$8,761
Boerne – New Maximum	**$2,509**	**$5,120**	**$7,629**
San Antonio Water System	$4,908	$2,664	$7,572
San Marcos	$3,801	$2,684	$6,485
Round Rock	$4,025	$2,099	$6,124
Hutto	$3,625	$2,128	$5,753
Universal City	$3,881	$655	$4,536

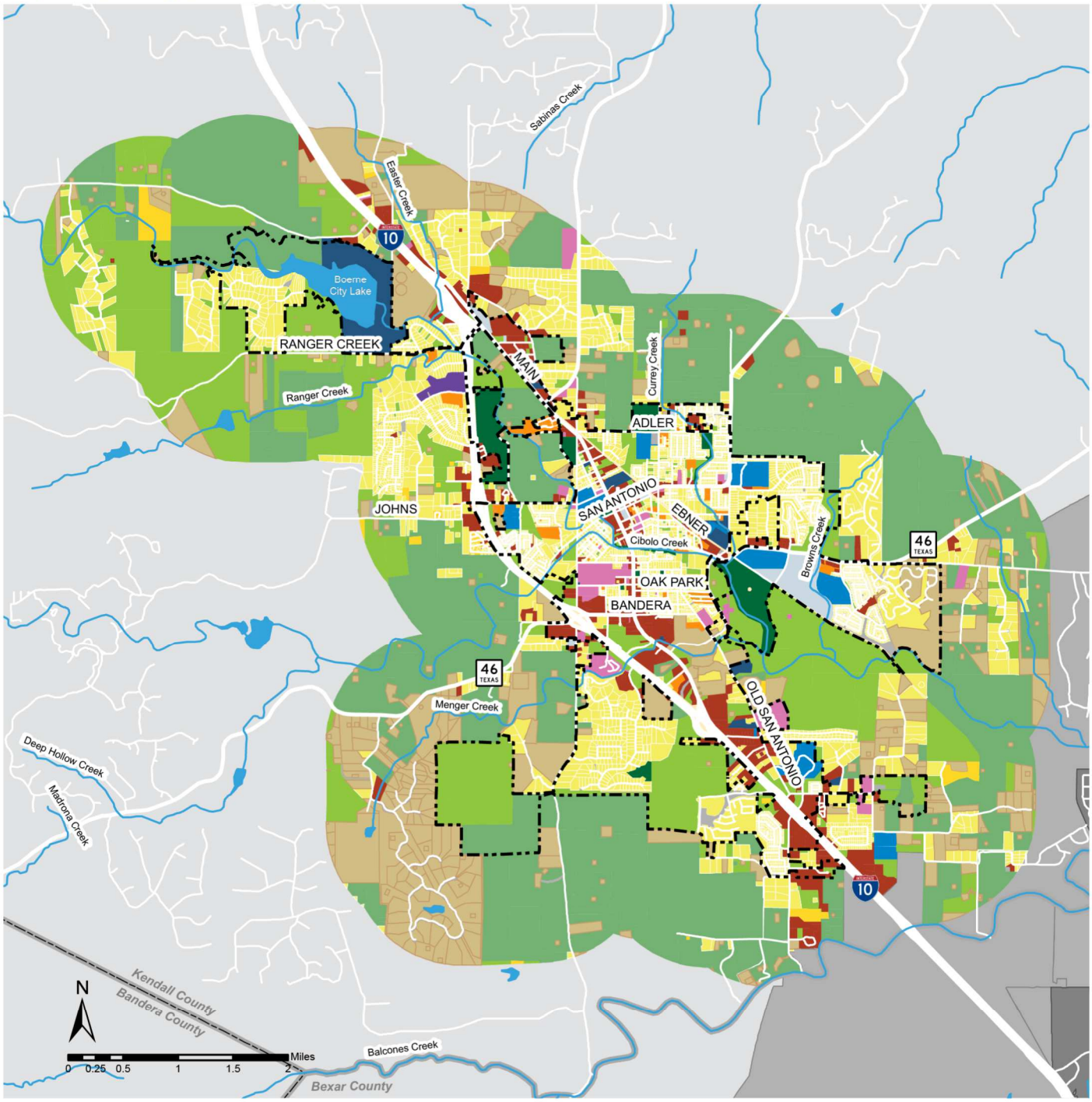
8. Advisory Committee Actions and Recommendations

The following summarizes the Capital Improvements Advisory Committee activities during the impact fee updating process:

- On January 10, 2023, the Committee met to:
  - Review Chapter 395 Impact Fee process and requirements.
- On February 6, 2023, the Committee met to:
  - Review population and land use information; and
  - Review CIP information.
  - Review methodology for maximum fee calculation;
  - Review unit cost calculations and maximum fee calculation; and
  - Receive draft report for review.
- On March 6, 2023, the Committee met to:
  - Approve the Impact Fee Report. By approving this report the Committee found the following:
    - The land use assumptions used in the report are reasonable;
    - The CIP used in the report is reasonable; and
    - The method used to calculate the maximum impact fee is reasonable.
  - In addition, the Committee recommends to City Council that the maximum impact fee amount in this document be adopted.

Appendix A
Current and Future Land Use

Map 2.6, Existing Land Use Map

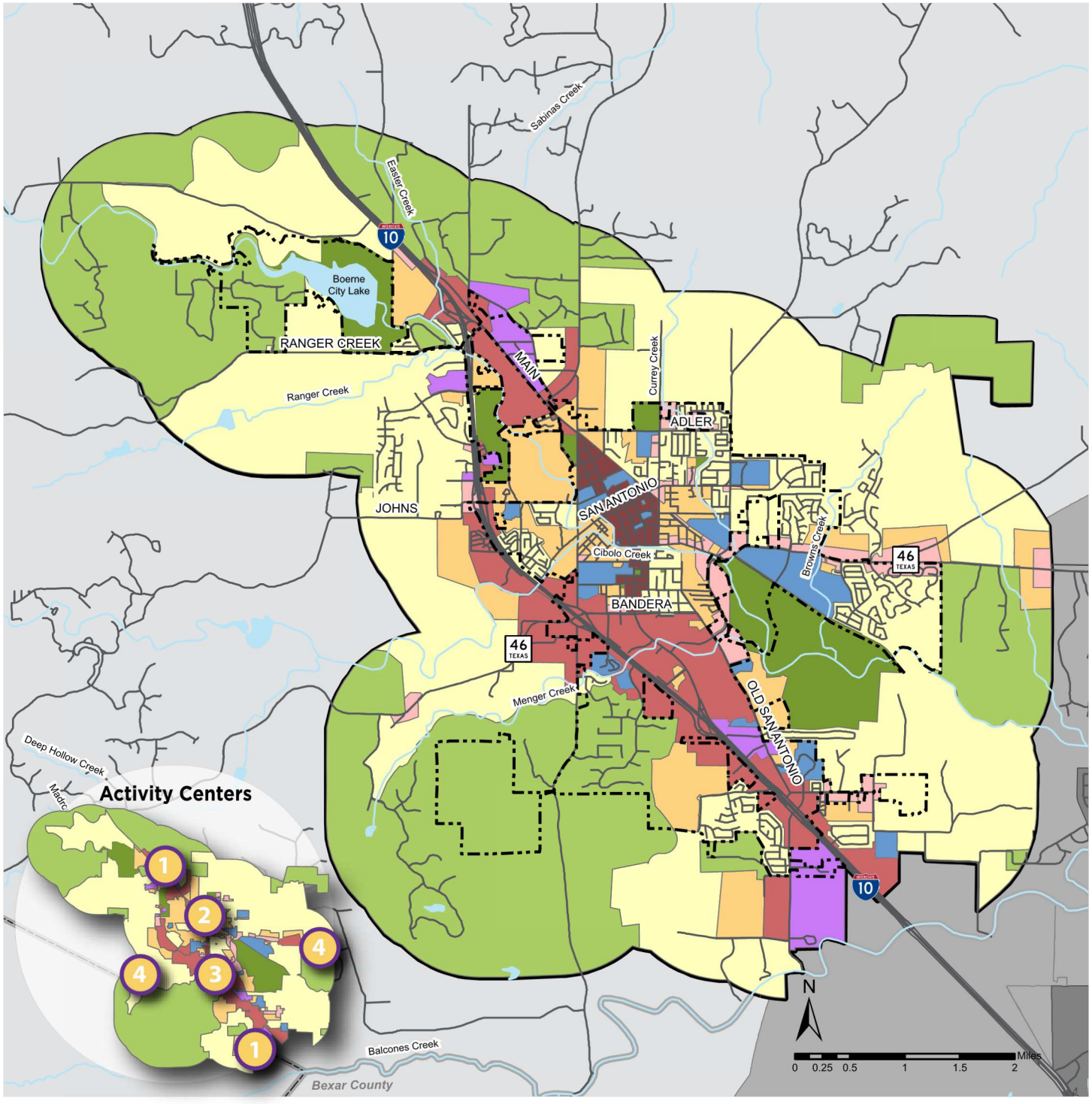


- Boerne City Limits
- Boerne ETJ
- Nearby Cities
- Nearby ETJs
- Major Roads
- Minor Roads
- Counties
- Creeks
- Water Bodies

Existing Land Use

- Agriculture
- Undeveloped/ Open Space
- Rural Residential
- Single-Family Residential
- Multi-Family Residential
- Manufactured Homes
- Commercial
- School
- Church/Charitable
- City
- State/County /Federal
- Parks
- Industrial
- Utilities

Map 4.2, Boerne Future Land Use Plan



Activity Centers

1. Employment/Commercial
2. Downtown and Urban Neighborhood
3. Regional Commercial
4. Neighborhood Commercial

- Parks & Open Space
- Rural Estate
- Neighborhood Residential
- Transitional Residential
- Neighborhood Commercial
- Auto-Oriented Commercial
- Business/Office Park
- Downtown
- Public & Institutional

- Boerne City Limits
- Boerne ETJ
- Nearby Cities
- Nearby ETJs
- Counties

Appendix B
Summary of 10-Year Water & Wastewater CIP Projects

Map Identifier	*Project Name*
W1	Water Treatment Plant Expansion
W2	Amman Road Water Tank & Pump Station
W3	GBRA Amman Road Main
W4	WCID #4 Supply Main (Amman)
W5	WCID #4 Supply Main (SH-46) – Oversizing
R1	Reclaimed Main Transmission Upgrade
R2	Trails of Herff Ranch Reclaimed Main
R3	Reclaimed Water Elevated Storage
R4	SH-46 Main Bore
R5	WWTRC Storage Tanks and Pumps
S1	1st WWTRC Expansion
S2	2nd WWTRC Expansion
S3	South Cibolo Collector
S4	Suggs Creek Sewer Main
S5	School Lift Station 3rd Wet Well Addition
S6	Trails of Herff Ranch Main

Sewer CIP
Reclaimed CIP
Water CIP

W1
W2
W3
W4
W5
R1
R2
R3
R4
R5
S1 & S2
S3
S4
S5
S6

Boerne Lake
Ranger Creek
Cibolo Creek
Currey Creek
Postoak Creek
Browns Creek
Frederick Creek
Menger Creek
Rock Creek
Spring Creek
Boerne
Malikoff Hill
Northrup Park
Boerne City Park
Lake Oz
Ranger Creek Rd
Spanish Pass Rd
Easter Creek
W Fabra Ln
Pfeiffer Rd
Summit Trl
Steel Valley Dr
Sisterdale Rd
Someday Dr
Toepperwein Rd
Spring Creek Rd
Jeep St
FM 474
Hillview Loop
Oak Ridge Dr
Rust Ln
Skylight Trl
Los Indios Ranch Rd
Doeskin Dr
Ranger Dr
Shooting Club Rd
Honey Bee Ln
N School St
Adler St
Deer Creek Dr
E Blanco Rd
Bentwood Dr
S Esser Rd
Esperanza Blvd
Brandt Rd
Deer Lake Dr
J Williams Rd
Johns Rd
Lattimore Blvd
Rosewood Ave
Boerne Lake Blvd
River Rd
S Main St
Herff Rd
Oak Park Dr
1st St
Bandera Rd
Winsbrook Dr
Herff Ranch Blvd
Cibolo Creek Ranch Rd
Ammann Rd
Wyatt Trl
Cibolo Ridge Trl
Savanalon Blvd
Sandy Oaks Dr
Ranch Pass
Postoak Creek
Rolling Acres Trl
Wild Oak Hl
Scarteen
Post Oak Trl
Meadow Creek Trl
Silver Spur Trl
Keenland Dr
Joshbur Dr
Kendall Pkwy
Scheele Rd
Cascade Cavern
Stonegate S
Stonegate N
South Camino Dr
Ranch Dr
Old San Antonio Rd
Upper Balcones Rd
Menger Spgs
Thunder Valley Rd
Cedar Pl
Interstate 10 W
State Highway 46 W
State Highway 46 E
1600 ft
1711 ft
1566 ft
1543 ft
1775 ft
1400 ft

Appendix C
LUE Fee Conversion Table

Meter Size	*Living Units Equivalent (LUEs) per Meter (a)*	*Maximum Base Fee per 5/8" Meter (b)*	*Maximum Impact Fee by Meter Size*
WATER UTILITY			
5/8"	1.0	**$2,509**	$2,509
3/4"	1.5		$3,764
1"	2.5		$6,273
1.5"	5.0		$12,545
2"	8.0		$20,072
3"	16.0		$40,144
4"	25.0		$62,725
6"	50.0		$125,450
8"	80.0		$200,720
10"	115.0		$288,535
WASTEWATER UTILITY			
5/8"	1.0	**$5,120**	$5,120
3/4"	1.5		$7,680
1"	2.5		$12,800
1.5"	5.0		$25,600
2"	8.0		$40,960
3"	16.0		$81,920
4"	25.0		$128,000
6"	50.0		$256,000
8"	80.0		$409,600
10"	115.0		$588,800

(a) Derived from AWWA C700-C703 standards for continuous rated flow performance scaled to 5/8" meter.

(b) Based on maximum fee presented to Impact Fee Advisory Committee on 2/6/23.