2016 Update of the Water and Wastewater Impact Fees of the City of Kyle

Prepared for:

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1.0 Introduction and Summary

The City of Kyle (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 Kyle City Council.

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 and, in general, are based upon recently completed system modeling reports by Burgess & Niple, Inc. 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 Kyle 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 ETJ is used as the basis for the impact fee service area of the City as shown in Figure 1. This fee application area boundary will comprise the area in which Kyle may levy the impact fees, in-part or in-full, if City service is provided. The City will be able to levy the fee on any new development inside of the ETJ, including inside the City limits, if City service is provided. This boundary does not, however, imply a legal obligation of the City of Kyle 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.

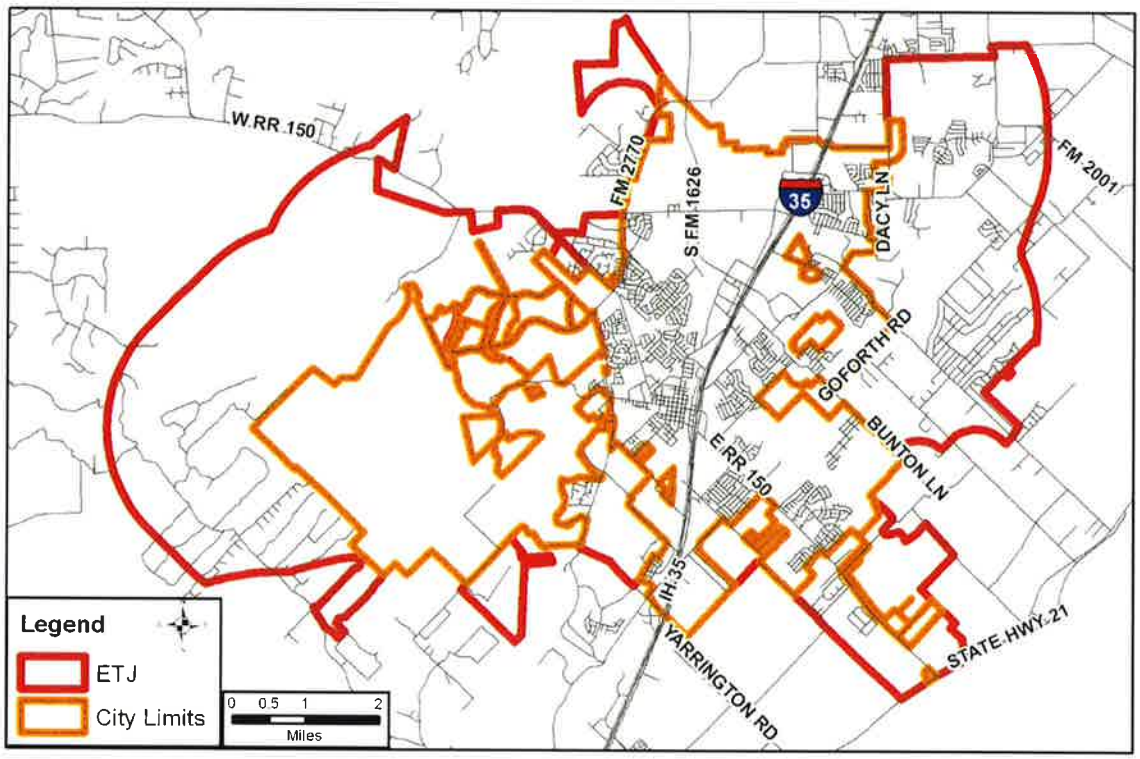

Figure 1. Water and Wastewater Impact Fees Application Area

3.0 Land Use Assumptions

Table 1 provides an estimate of the current and future land use patterns of the potential service area with information obtained from the City of Kyle land use data files. As indicated, about 21% of the total ETJ area is currently in residential land uses with 13% in commercial/retail and industrial. It is estimated that 66% of the land within the ETJ is either undeveloped or served by other utilities.

Table 1.
Current and Projected Land Use

Item	Current		Future (Including ETJ)	
	Acres	%	Acres	%
Single Family Residential & Mfg. Homes	4,952	20%	10,500	43%
Multi-Family Residential	264	1%	500	2%
Commercial/Retail	2,127	9%	2,500	10%
Industrial	866	4%	870	4%
Subtotal Developed	**8,209**	**34%**	**14,370**	**59%**
Undeveloped/Not Served by City Utilities	16,871	66%	10,710	41%
Total Land Use Acreage	**25,080**	**100%**	**25,080**	**100%**

Source: City of Kyle, 2016.
The following water use rates were used to project demand based on the land use data above:

- 310 gals per acre – Single Family & Mfg. Homes (Current)
- 300 gals per acre – Single Family & Mfg. Homes (Future)
- 380 gals per acre – Multi-Family Residential (Current)
- 370 gals per acre – Multi-Family Residential (Future)
- 290 gals per acre – Commercial/Retail (Current)
- 280 gals per acre – Commercial/Retail (Future)
- 160 gals per acre – Industrial (Current & Future)

Over time as the City grows into the ETJ, developed land areas will both increase and become a higher percentage of overall land uses. Projected residential land uses are expected to increase to 45% of total potential service land area and commercial/retail and industrial land use is expected to increase to 14% of total land use. It is projected that undeveloped land or land that

is not served by City utilities will shrink to 41% of the total ETJ 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.

Table 2.
Water and Wastewater Service Area Population

Utility	2017	2026	% Increase
Water	29,617	45,946	55%
Wastewater	36,542	56,660	55%

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 2016. A typical single family residential house in Kyle uses a 5/8" water meter and 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 Planning Department, meter count/LUE estimates from the City Utility Billing Section, and a dry-year per capita water use statistic used by the City in their water supply and treatment facility planning efforts. Wastewater demand was forecast using historical data and technical studies of the City's system.

With the anticipated rapid growth of the City and surrounding area, potable water utility demand in certain service areas is expected to exceed the existing capacity of water pumping,

ground storage, elevated storage and water transmission. The City of identified a 10-year CIP to meet all needs during the planning period. Additional facilities need was also identified for wastewater treatment and interceptors, within the future 10-year period. Similar to water, an appropriate CIP has been identified to meet all wastewater needs within the planning period.

Table 3.
LUE Equivalent Conversion Factors

Water Meter Size	Living Units Equivalent (LUEs) per Meter (a)	Number of Meters in 2016 (b)	Number of LUEs in 2016
Water			
5/8"	1.0	8,397	8,397
3/4"	1.5	12	18
1"	2.5	87	218
1.5"	5.0	69	345
2"	8.0	74	592
3"	16.0	9	144
4"	25.0	8	200
6"	50.0	6	300
8"	80.0	3	240
10"	115.0	0	0
Total Water		**8,665**	**10,454**
Wastewater (c)			
5/8"	1.0	10,586	10,586
3/4"	1.5	7	11
1"	2.5	32	80
1.5"	5.0	42	210
2"	8.0	44	352
3"	16.0	8	128
4"	25.0	8	200
6"	50.0	6	300
8"	80.0	1	80
10"	115.0	0	0
Total Wastewater		**10,734**	**11,947**

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

(b) Source: City of Kyle, meter count as of June 2016.

(c) Based on water meter size.

Table 4.
Estimated Water Service Demands and Available Capacity

Facility Type	2017	2026	10-yr Demand Increment
Supply			
Existing 2016 Capacity (mgd) *	6.680	6.680	
Est. Service Demand	2.646	4.104	1.459
Excess (Deficiency)	4.034	2.576	
Existing 2016 Capacity (LUEs) *	29,298	29,298	
Est. Service Demand	11,603	18,001	6,397
Excess (Deficiency)	17,695	11,298	
Treatment			
Existing 2016 Capacity (mgd)	9.703	9.703	
Est. Service Demand	4.154	6.444	2.290
Excess (Deficiency)	5.549	3.259	
Existing 2016 Capacity (LUEs) *	27,105	27,105	
Est. Service Demand	11,603	18,001	6,397
Excess (Deficiency)	15,502	9,105	
Pumping			
Existing 2016 Capacity (mgd)	11.380	11.380	
Est. Service Demand	7.937	12,312	4.376
Excess (Deficiency)	3.443	(0.932)	
Existing 2016 Capacity (LUEs) *	16,637	16,637	
Est. Service Demand	11,603	18,001	6,397
Excess (Deficiency)	5,034	(1,363)	
Ground Storage			
Existing 2016 Capacity (mg)	2.535	2.535	
Est. Service Demand	2.646	4.104	1.459
Excess (Deficiency)	(0.111)	(1.569)	
Existing 2016 Capacity (LUEs) *	11,118	11,118	
Est. Service Demand	11,603	18,001	6,397
Excess (Deficiency)	(485)	(6,882)	
Elevated Storage			
Existing 2016 Capacity (mg)	2.200	2.200	
Est. Service Demand	2.321	3.600	1.279
Excess (Deficiency)	(0.121)	(1.400)	
Existing 2016 Capacity (LUEs) *	11,000	11,000	
Est. Service Demand	11,603	18,001	6,397
Excess (Deficiency)	(603)	(10,107)	
Transmission			
Existing 2016 Capacity (mgd)	10.000	10.000	
Est. Service Demand	7.937	12.312	4.376
Excess (Deficiency)	2.063	(2.312)	
Existing 2016 Capacity (LUEs) *	14,620	14,620	
Est. Service Demand	11,603	18,001	6,397
Excess (Deficiency)	3,016	(3,381)	
* Assume LUE conversion factor of :	228	gpd/LUE for wtr supply facilities	
	358	gpd/LUE for treatment	
	684	gpd/LUE for pumping	
	228	gals/LUE for ground storage	
	200	gals/LUE for elevated storage	
	684	gpd/LUE for transmission	

Table 5.
Estimated Wastewater Service Demands and Available Capacity

Facility Type	2016	2027	10-yr Demand Increment
Treatment			
Existing 2016 Capacity (mgd) *	2.700	2.700	
Est. Service Demand	2.347	3.641	1.294
Excess (Deficiency)	0.353	(0.941)	
Existing 2016 Capacity (LUEs) *	16,463	16,463	
Est. Service Demand	14,309	22,198	7,889
Excess (Deficiency)	2,154	(5,735)	
Pumping			
Existing 2016 Capacity (mgd)	8.050	8.050	
Est. Service Demand**	4.004	6.211	2.207
Excess (Deficiency)	4.046	1.839	
Existing 2016 Capacity (LUEs) *	14,874	14,874	
Est. Service Demand	7,398	11,477	4,079
Excess (Deficiency)	7,476	3,398	
Interceptors			
Existing 2016 Capacity (mgd)	10.200	10.200	
Est. Service Demand	7.744	12,014	4.270
Excess (Deficiency)	2.456	(1.814)	
Existing 2016 Capacity (LUEs) *	18,847	18,847	
Est. Service Demand	14,309	22,198	7,889
Excess (Deficiency)	4,538	(3,351)	
* Assume LUE conversion factor of :	164	gpd/LUE for ww treatment	
	541	gpd/LUE for ww pumping	
	541	gpd/LUE for interceptors	
** Assumes:	51.7%	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. In the years of anticipated construction, the City's 10-year capital need for new capacity totals $69.2 million for water and $41.3 million for wastewater (see Appendix A).

Given the considerable growth facing the City in the next ten years, improvements are needed in the areas of water supply, water treatment, pumping, ground storage, elevated storage and water transmission. Kyle will also need noticeable improvements to its wastewater system, including a wastewater treatment plant expansion. Improvements are also identified for interceptor pipelines that would serve future growth.

Specific projects that accomplish these service capacity goals are identified in Tables 6a and 6b along with their cost, capacity, unit cost, and allocation of existing and projected demand to these facilities. A weighted unit cost of service ($ per SU) 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 CIP Inventory and Costing

Facility Name	Construction Cost	Capacity Total	Capacity LUEs	Construction Cost per LUE	Facility Capacity Allocations (LUEs) Existing Customers	Growth Use in Next 10 Years	Excess Capacity after 10 Years	Total Capacity
WATER SUPPLY								
EXISTING FACILITIES		mgd						
San Marcos Interconnect	$ 262,924	0.5	2,193					
GBRA Supply	$ 13,259,525	4.9	21,316					
Well #1	$ 317,183	0.2	877					
Well #2	$ 332,561	0.1	439					
Well #3	$ 375,822	0.1	439					
Well #5	$ 415,803	0.1	439					
Well #4	$ 527,750	0.8	3,596					
Subtotal Existing Facilities	$ 15,491,568	6.7	29,298	$ 529	11,603	500	17,195	29,298
FUTURE FACILITIES								
HCPUA Supply	$ 52,020,553	3.8	16,579					
County Line WSC Interconnect	$ 150,000	-	-					
Monarch Interconnect	$ 70,000	-	-					
Subtotal Future Facilities	52,240,552.6	3.8	16,579	$ 3,151	-	5,897	10,682	16,579
TOTAL WATER SUPPLY	$ 67,732,121	10.5	45,877		11,603	6,397	27,877	45,877
	AVERAGE CAPITAL COST PER NEW LUE =			$ 2,946				
WATER TREATMENT - PRODUCTION								
EXISTING FACILITIES		peak day mgd						
GBRA Supply	$ 2,821,880	7.6	21,316					-
Well #1	$ 55,000	0.3	877					
Well #2	$ 55,000	0.2	439					
Well #3	$ 31,000	0.2	439					
Well #5	$ 55,000	0.2	439					
Well #4	$ 35,000	1.3	3,596					
Other Treatment Facilities	$ 75,000	-	-					
SCADA System	$ 350,000	-	-					
Subtotal Existing Facilities	$ 3,477,880	9.7	27,105	$ 128	11,603	500	15,002	27,105
FUTURE FACILITIES								
HCPUA Supply	$ 5,780,061	5.9	16,579					
SCADA System	$ -	-	-					
Subtotal Future Facilities	$ 5,780,061	5.9	16,579	$ 349	-	5,897	10,682	16,579
TOTAL WATER TREATMENT	$ 9,257,941	15.6	43,684		11,603	6,397	25,684	43,684
	AVERAGE CAPITAL COST PER NEW LUE =			$ 331				
PUMPING								
EXISTING FACILITIES		peak hr mgd						
Rebel Road	$ 60,000	3.2	4,737					
Well 3	$ 15,000	1.4	2,105					
Yarrington Station	$ 36,600	2.4	3,480					
Lehman	$ 25,000	2.2	3,158					
1626 Station	$ 25,000	2.2	3,158					
Subtotal Existing Facilities	$ 161,600	11.4	16,637	$ 10	11,603	3,239	1,795	16,637
FUTURE FACILITIES								
1626 Upgrade	$ 130,000	1.1	1,579					
Lehman Upgrade	$ 130,000	1.1	1,579					
Subtotal Future Facilities	$ 260,000	2.2	3,158	$ 82	-	3,158	-	3,158
TOTAL PUMPING	$ 421,600	13.5	19,795		11,603	6,397	1,795	19,795
	AVERAGE CAPITAL COST PER NEW LUE =			$ 46				
GROUND STORAGE								
EXISTING FACILITIES		mill. gals.						
Stagecoach Road	$ 692,186	0.5	2,127					
Rebel Drive	$ 518,320	0.3	1,316					
Yarrington Road	$ 728,005	0.8	3,289					
Lehman Road	$ 529,186	0.5	2,193					
FM 1626	$ 529,186	0.5	2,193					
Subtotal Existing Facilities	$ 2,996,883	2.5	11,118	$ 270	11,603	-	(485)	11,118
FUTURE FACILITIES								
New Ground Storage	$ 3,000,000	3.0	13,158					
Subtotal Future Facilities	$ 3,000,000	3.000	13,158	$ 228	-	6,397	6,761	13,158
TOTAL GROUND STORAGE	$ 5,996,883	5.535	24,276		11,603	6,397	6,276	24,276
	AVERAGE CAPITAL COST PER NEW LUE =			$ 228				
ELEVATED STORAGE								
EXISTING FACILITIES		mill. gals.						
Roland Lane	$ 1,197,383	0.300	1,500					
Stagecoach Road	$ 629,186	0.150	750					
Dacy Lane	$ 1,132,593	0.300	1,500					
Plum Creek	$ 975,000	0.200	1,000					
Kohlers Crossing	$ 1,466,000	0.500	2,500					
Post Oak	$ 1,461,550	0.750	3,750					
Subtotal Existing Facilities	$ 6,861,712	2.200	11,000	$ 624	11,603	-	(603)	11,000
FUTURE FACILITIES								
Future Elevated Storage	$ 4,400,000	2.000	10,000					
Subtotal Future Facilities	$ 4,400,000	2.000	10,000	$ 440	-	6,397	3,603	10,000
TOTAL ELEVATED STORAGE	$ 11,261,712	4.200	21,000		11,603	6,397	2,999	21,000
	AVERAGE CAPITAL COST PER NEW LUE =			$ 440				
TRANSMISSION								
EXISTING FACILITIES		peak hr mgd						
Various Transmission Mains	$ 16,658,000	10.0	14,620					
Subtotal Existing Facilities	$ 16,658,000	10.0	14,620	$ 1,139	11,603	500	2,516	14,620
FUTURE FACILITIES								
Old Hwy 81 - 12" Water Line	$ 105,000	2.3	3,363					
Pumphouse Rd/Melinda Lane 8" Water I	$ 120,000	0.8	1,170					
Stagecoach, Scott St. and Opal St. - 12	$ 300,000	2.3	3,363					
Various Other Transmission Mains/Upgr	$ 3,000,000	3.0	4,386					
Subtotal Future Facilities	$ 3,525,000	8.4	12,281	$ 287	-	5,897	6,383	12,281
TOTAL TRANSMISSION	$ 20,183,000	18.4	26,901		11,603	6,397	8,900	26,901
	AVERAGE CAPITAL COST PER NEW LUE =			$ 354				
WATER TOTAL								
Existing	$ 45,647,643							
Future	$ 69,205,614							
Total	$ 114,853,257							
	AVERAGE CAPITAL COST PER NEW LUE =			$ 4,345				

Table 6b.
Wastewater CIP Inventory and Costing

Facility Name	Construction Cost	Capacity Total	Capacity LUEs	Construction Cost per LUE	Facility Capacity Allocations (LUEs) Existing Customers	Growth Use in Next 10 Years	Excess Capacity after 10 Years	Total Capacity
TREATMENT								
EXISTING FACILITIES		mgd						
City of Kyle WWTP	$ 5,520,817	2.7	16,463					
Subtotal Existing Facilities	$ 5,520,817	2.7	16,463	$ 335	14,309	750	1,404	16,463
FUTURE FACILITIES								
Expansion of Wastewater Treatment Plant	$16,850,000	1.5	9,146					
Subtotal Future Facilities	$16,850,000	1.5	9,146	$ 1,842	-	7,139	2,007	9,146
TOTAL TREATMENT	$22,370,817	4.2	25,610		14,309	7,889	3,411	25,610
	AVERAGE CAPITAL COST PER NEW LUE =			**$ 1,699**				
WASTEWATER PUMPING								
EXISTING FACILITIES		mgd						
Barton Jr. High	$ -	2.0	3,769					
Bradford Meadows	$ -	0.2	296					
Indian Paintbrush	$ -	1.6	2,975					
Kensington Trails	$ -	0.8	1,534					
Southlake	$ -	2.4	4,490					
Masonwood	$ -	0.8	1,534					
Hemphill	$ -	0.1	185					
Bunton Creek	$ -	0.1	92					
Subtotal Existing Facilities	$ -	8.1	14,874	$ -	7,398	1	7,475	14,874
FUTURE FACILITIES								
Cypress Forest	$ -	0.8	1,478					
Crosswinds	$ -		-					
Subtotal Future Facilities	$ -	0.8	1,478	$ -	-	-	1,478	1,478
TOTAL WASTEWATER PUMPING	$ -	8.9	16,353		7,398	1	8,954	16,353
	AVERAGE CAPITAL COST PER NEW LUE =			**$ -**				
INTERCEPTORS								
EXISTING FACILITIES		mgd						
Misc. Sewer Mains	$18,356,000	10.2	18,847					
Subtotal Existing Facilities	$18,356,000	10.2	18,847	$ 974	14,309	750	3,788	18,847
FUTURE FACILITIES								
Bunton Creek Interceptor Ph 3.1	$ 2,700,000	-	-					
Bunton Creek Interceptor Ph 3.2	$ 2,100,000	-	-					
WWTP Interceptor Ph 1	$ 3,437,000	9.5	17,554					
WWTP Interceptor Ph 2	$ 2,308,000		-					
Elliott Branch Interceptor Ph 1	$ 3,480,000	-	-					
Elliott Branch Interceptor Ph 2	$ 1,345,000	-	-					
Center Street Village Wastewater Improvement	$ 1,763,800	-	-					
Plum Creek Interceptor Ph. 1	$ 960,800	-	-					
Plum Creek Interceptor Ph. 3	$ 2,145,100	-	-					
Yarrington WW Line to SM System	$ 4,250,000	0.5	924					
Subtotal Future Facilities	$24,489,700	10.0	18,477	$ 1,325	-	7,139	11,338	18,477
TOTAL INTERCEPTORS	$42,845,700	20.2	37,324		14,309	7,889	15,126	37,324
	AVERAGE CAPITAL COST PER NEW LUE =			**$ 1,292**				
Existing	$23,876,817							
Future	$41,339,700							
Total	$65,216,517							
	AVERAGE CAPITAL COST PER NEW LUE =			**$ 2,991**				

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 $3,535 per LUE for water and $2,826 per LUE for wastewater, totaling $6,361 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 $2,174 per LUE and wastewater fee of $1,497 per LUE, yielding an overall $3,631 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	$ 818,384	14,802	$ 55
Series 2017-2026 New Growth	7,243,185	14,802	489
Subtotal Water Supply	***8,061,569***		***545***
Treatment			
Existing Debt	183,728	14,802	12
Series 2017-2026	801,409	14,802	54
Subtotal Water Treatment	***985,138***		***67***
Pumping			
Existing Debt	8,537	14,802	1
Series 2017-2026	36,049	14,802	2
Subtotal Water Pumping	***44,586***		***3***
Ground Storage			
Existing Debt	158,318	14,802	11
Series 2017-2026	415,952	14,802	28
Subtotal Ground Storage	***574,270***		***39***
Elevated Storage			
Existing Debt	362,488	14,802	24
Series 2017-2026	610,063	14,802	41
Subtotal Elevated Storage	***972,551***		***66***
Transmission			
Existing Debt	880,004	14,802	59
Series 2017-2026	488,743	14,802	33
Subtotal Transmission Lines	***1,368,747***		***92***
Total Water			**$811**
WASTEWATER UTILITY			
Treatment			
Existing Debt	$ 125,795	18,254	$ 7
Series 2017-2026	1,016,360	18,254	56
Subtotal WWTP	***1,142,155***		***63***
Pumping			
Existing Debt	0	18,254	0
Series 2017-2026	0	18,254	0
Subtotal Wastewater Pumping	***0***		***0***
Interceptors			
Existing Debt	418,253	18,254	23
Series 2017-2026	1,477,172	18,254	81
Subtotal Interceptors	***1,895,425***		***104***
Total Wastewater			**$166**
Total Water and Wastewater			**$978**

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	$ 2,946	$ 545	$ 1,473	$ 2,401	$ 1,473	
Treatment	331	67	166	265	166	
Pumping	46	3	23	43	23	
Ground Storage	228	39	114	189	114	
Elevated Storage	440	66	220	374	220	
Transmission	354	92	177	261	177	
Allocated Impact Fee Study Cost	1			1	1	
Total Water	$4,346	$811	$2,172	$3,535	$2,174	**$3,535**
WASTEWATER						
Treatment	$ 1,699	$ 63	$ 850	$ 1,636	$ 850	
Pumping	0	0	0	0	0	
Interceptors	1,292	104	646	1,188	646	
Allocated Impact Fee Study Cost	1			1	1	
Total Wastewater	$2,992	$166	$1,495	$2,826	$1,497	**$2,826**
TOTAL WATER/WASTEWATER	$7,338	$978	$3,668	$6,361	$3,671	**$6,361**

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
Buda	$2,187	$2,531	$4,718
New Braunfels Utilities	$4,260	$3,270	$7,530
Seguin	$1,875	$2,374	$4,249
Leander	$3,880	$1,615	$5,495
Universal City	$2,741	$861	$3,602
Austin	$5,400	$2,200	$7,600
Cedar Park	$2,250	$2,000	$4,250
Lockhart	$1,224	$1,094	$2,318
Hutto	$3,625	$2,128	$5,753
San Marcos	$2,285	$3,506	$5,791
Round Rock	$4,025	$2,099	$6,124
Kyle – Current	**$2,115**	**$2,216**	**$4,331**
Kyle – New Maximum	**$3,535**	**$2,826**	**$6,361**

8. Advisory Committee Actions and Recommendations

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

- On 10/25/16, the Committee met to:
  - Review population and land use information.
  - Review Chapter 395 Impact Fee process and requirements;
  - Review methodology for maximum fee calculation;
  - Review CIP information;
  - Review unit cost calculations and maximum fee calculation;
  - Receive draft report for review;
- On 11/7/16, the Committee met to:
  - Discuss various possible recommendations to the City Council; and
  - Approved the following:
    - use of the land use and capital improvements data underlying the maximum impact fee calculations;
    - the validity of calculation of the maximum water and wastewater impact fee amounts;
    - a recommendation that the City Council adopt the maximum impact fees amounts; and
    - adoption of the Advisory Committee Report to be forwarded to City Council.

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

Water Capital Projects	Cost
WATER SUPPLY	
HCPUA Supply	$52,020,553
County Line WSC Interconnect	150,000
Monarch Interconnect	70,000
WATER TREATMENT	
HCPUA Supply	5,780,061
WATER PUMPING	
FM 1626 Upgrade	130,000
Lehman Upgrade	130,000
GROUND STORAGE	
New Ground Storage Facilities	3,000,000
ELEVATED STORAGE	
New Elevated Storage Facilities	4,400,000
TRANSMISSION	
Old Hwy 81 – 12" Water Line	105,000
Pumphouse Rd/Melinda Lane 8" Water Line	120,000
Stagecoach, Scott St. and Opal St. – 12" Water Line	300,000
Various Other Transmission Mains	3,000,000
Total 10-Year Projects for Growth	**$69,205,614**
Wastewater Capital Projects	***Cost***
WASTEWATER TREATMENT	
Expansion of Wastewater Treatment Plant	$16,850,000
PUMPING (Lift Stations)	
Cypress Forest	0
Crosswinds	0
INTERCEPTORS	
Bunton Creek Interceptor Ph. 3.1	2,700,000
Bunton Creek Interceptor Ph. 3.2	2,100,000
WWTP Interceptor Ph. 1	3,437,000
WWTP Interceptor Ph. 2	2,308,000

Elliott Branch Interceptor Ph. 1	3,480,000
Elliott Branch Interceptor Ph. 2	1,345,000
Center Street Village Wastewater Improvement	1,763,800
Plum Creek Interceptor Ph. 1	960,800
Plum Creek Interceptor Ph. 2	2,145,100
Yarrington WW Line to SM System	4,250,000
Total 10-Year Projects for Growth	**$41,339,700**

Appendix B
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	**$3,535**	$3,535
3/4"	1.5		$5,303
1"	2.5		$8,838
1.5"	5.0		$17,675
2"	8.0		$28,280
3"	16.0		$56,560
4"	25.0		$88,375
6"	50.0		$176,750
8"	80.0		$282,800
10"	115.0		$406,525
WASTEWATER UTILITY			
5/8"	1.0	**$2,826**	$2,826
3/4"	1.5		$4,239
1"	2.5		$7,065
1.5"	5.0		$14,130
2"	8.0		$22,608
3"	16.0		$45,216
4"	25.0		$70,650
6"	50.0		$141,300
8"	80.0		$226,080
10"	115.0		$324,990

(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 10/25/16.