

# Water and Wastewater Impact Fees Fiscal Year 2023-24 Update

## **Draft Water and Wastewater Impact Fee Study**

January 3, 2024

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- Attachment C: Capital Improvement Plan
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# Project Overview

## Background of the Study

EPWater engaged Raftelis to update the existing Water and Wastewater Impact Fees in compliance with State law-Texas Statutes, Local Government Code, Chapter 395 (State Impact Fee Statues). This report documents the 2024 update of the water and wastewater impact fees and replaces the previous Water and Wastewater Impact Fees-2019 Update. During the last impact fee update process, it was determined that the approved 2019 impact fee amounts would be updated.

Consistent with the previous updates of impact fees, this update determined fees for the same three areas as the previous study (Northeast, Eastside, and Westside). Listed below are the designated service areas.

### Northeast Area

- 01- Northeast Master Plan
- 05A- Northwest Fort Bliss A
- 05B- Northwest Fort Bliss B
- 05C- Northwest Fort Bliss C

### Westside Area

- 02- Westside MP
- 03A- Northwest Vinton A
- 03E- I-10375 MP
- 04A- Northwest Artcraft A
- 04B- Northwest Artcraft B
- 04C- Northwest Artcraft C
- 04D- Northwest Artcraft D
- 04E- Canutillo
- 02B- Other

### Eastside Area

- 08B- Eastside
- 12- South Montana
- 12B- South Montana B
- 06- South Fort Bliss
- 08- East Battle
- 10B- South Fort Bliss B

The calculated water and wastewater impact fees may only be charged to the aforementioned service areas. Any development outside of the service areas will not be charged an impact fee. Maps displaying the EPWater service area are attached in Appendix A. Calculations and results in this report are based on numerical analysis using rounded figures. However, the analysis itself uses figures carried to their ultimate decimal places. Therefore, the sums and products generated may not exactly equal the sum or product if the reader replicates the calculation with the factors shown in the report (due to rounding).

# Impact Fee Methodology

The water and wastewater impact fee calculations are based on the incremental method. Under this method, new customers pay a fee representing their share of expansion related developmental costs of new facilities. The incremental method uses a 10-year capital improvement plan (CIP) that accounts for projects that will add future capacity. The impact fee is determined for the supply and treatment categories for water and treatment and collection categories for wastewater.

Each CIP project is allocated to its respective category: reservoirs to water distribution, force mains to wastewater collection, wastewater lines to wastewater collection, etc. The project's costs and service units are summed by category. The categories' total service units then divide the total categories' costs to arrive at a per unit cost. For example, the total costs of the distribution pumping equipment category are divided by the total capacity added by the distribution pumping equipment to arrive at per unit amount. This amount is added to the water distribution portion of the impact fee. A service unit represents the water and wastewater flows in gallons per day (gpd) for a single family residential unit.

# Land Use Assumptions and Service Unit Characteristics

Impact fees in Texas must meet the requirements set by the Texas Statutes, Local Government Code, Chapter 395. In compliance with Chapter 395 land use assumptions, see Attachment B, are used to arrive at the residential service units (SUs) and population per residential service as shown in Table 1. The average persons per service unit used is 2.94 persons per household based on the County average as shown in the *2024 Land Use Assumptions Technical Report*. The Land Use Assumption Update uses data from master plans prepared by or on behalf of the City of El Paso, and from other sources used in projecting water and wastewater service demands.

**Table 1 - Land Use Assumptions**

Service Area	Total Residential Service Units (Build-Out)	Average Household Size Persons/SU	Population per Service Area
<b>Northeast</b>			
01	16,440	2.94	48,334
05A	7,145	2.94	21,006
05B	13,989	2.94	41,128
05C	1,364	2.94	4,010
<b>Westside</b>			
02	0	2.94	0
03A	356	2.94	1,047
03E	3,515	2.94	10,334
04A	5,634	2.94	16,564
04B	3,123	2.94	9,182
04C	381	2.94	1,120
04D	752	2.94	2,211
04E	2,102	2.94	6,180
02B	4,248	2.94	12,489
<b>Eastside</b>			
08B	15,197	2.94	44,679
12	8,580	2.94	25,225
12B	2,627	2.94	7,723
06	419	2.94	1,232
08	7,416	2.94	21,803
10B	3,035	2.94	8,923

Table 1 shows the land use and demographic assumptions used to determine the residential service units and future capacity requirements. These assumptions go into calculating the water and wastewater flow rates that will be used throughout the analysis/model.

Using Table 1 data and assumptions regarding commercial and industrial use, the water and wastewater flow rates are calculated in Table 2. In this study we use 3.29 persons per Service Unit to define the flow rates, this rate is higher than the 2.94 persons per Service Unit in Table 1 due to the additional commercial and industrial usage. The Persons Per Service Unit was updated from 3.50 as reflected within the 2019 Impact Fee Study analysis to 3.29 for this update as referenced in Table 2 below.

**Table 2 - Equivalent Service Unit Flows**

Description	Water	Wastewater
<b>Average Usage Per Capita (gallons per day-gpd)</b>	115	70
<b>Ratio of Maximum Day Demand to Average Day Demand</b>	<u>1.71<sup>1</sup></u>	<u>1.39</u>
<b>Maximum Day Demand per Capita (gpd)</b>	209	98
<b>Persons per Service Unit</b>	<u>3.29</u>	<u>3.29</u>
<b>Flows per Equivalent Service Unit (gpd)<sup>2</sup></b>	688	341

1. Elevated water storage capacity is calculated based on 50% of Maximum Day Demand.
2. Equivalent service unit flows represent flow to a residential, commercial, or industrial user with a water meter size less than 1-inch.

The flows per service unit are 688 gpd for water and 341 gpd for wastewater. These flow rates are used to calculate the number of facility service units in Attachments E and F.

# 10-Year Population and Service Unit Projections

It is difficult to forecast population growth and developmental growth accurately. The growth directly influences the timeline for when exactly the additional capacity must be realized. This assumption must be made when calculating an impact fee. Table 3 displays the population and development units for the water and wastewater impact fee areas under consideration as of 2033. The values includes 2023 developed acres, population, and residential, non-residential, and total service units plus projected growth over the 10-year period of 2023 through 2033.

**Table 3 - 2033 Population and Service Units**

Service Area	Developable Acres	Population	Residential Service Units	Non-Residential Service Unit Equivalents	Total Service Units
Northeast	5,363	77,981	26,524	23,944	50,468
Westside	3,309	37,400	12,721	9,378	22,099
Eastside	<u>5,441</u>	<u>56,530</u>	<u>19,228</u>	<u>8,611</u>	<u>27,839</u>
<b>Total</b>	14,314	171,911	58,473	41,933	100,406

## Proposed Capital Improvement Facilities

In compliance with the State Impact Fee Statues, proposed capital improvements were prepared by Adriana Castillo, P.E., with EPWater. The capital projects include facilities required by new development in the next ten years. Descriptions of the proposed capital improvement projects are included as Attachment C to this report. The list of CIP projects with estimated costs for each, are included in Attachment D. Attachment E to this report shows the CIP capital, financing costs, capacity, facility service units, unit cost of capacity, and weighted average cost of capacity for each service area used in the impact fee calculation.

## Maximum Impact Fee Calculation

The capital projects noted in the CIP plan add capacity for the 10-year period and beyond. To account for this growth Raftelis allocates the costs of the growth-related CIP to the projected development and to the total number of new service units that may be served by the new capacity additions. The 10-year CIP is adding significant capacity, but this capacity will still not be sufficient to serve the projected ultimate built out capacity of the indicated service areas.

Raftelis used the capacities provided by EPWater to estimate capacity added by each capital project. This assumes that all units will be served by the additional capacity regardless of when the growth occurs.

The LUA Update projects new service units for the next ten years (Table 4) to be served by EPWater planned capacity additions as reported in the 10-year CIP. In compliance with the State Impact Fee Statutes, the maximum impact fee per service unit is calculated by dividing the costs of the portion of the CIP required by and attributable to projected new service units by the total projected new service units served by the CIP.

Attachment F provides a summary of the capital costs, capital service units, financing costs, percentage of CIP needed through 2033, and the maximum impact fee for each service area. The model assumes a 35% debt funding rate with a 5% interest rate and a 20-year repayment period for water-related capital projects. For wastewater-related capital projects, it assumes a 63% debt funding rate with the same 5% interest rate and 20-year repayment period. The impact fee calculations include the net present value of the interest and transaction costs of the loans to arrive at a per unit impact fee value. Table 4 summarizes the maximum impact fee by service area.

**Table 4 - Maximum Impact Fee by Service Area**

Service Area	Projected New Service Units (through 2033)	Maximum Impact Fee per Service Unit
<b><u>Northeast</u></b>		
Water	37,660	\$10,023
Wastewater	37,660	<u>1,345</u>
<b>Total</b>		\$11,368
<b><u>Westside</u></b>		
Water	5,989	\$3,136
Wastewater	5,989	<u>3,379</u>
<b>Total</b>		\$6,515
<b><u>Eastside</u></b>		
Water	11,421	\$14,954
Wastewater	11,421	<u>21,008</u>
<b>Total</b>		\$35,962

# Maximum Calculation

The State Impact Fee Statutes require the determination of an “impact fee credit” for the portion of utility service revenues or ad valorem taxes generated by the new service units during the 10-year period. There are two ways to calculate this credit:

- A credit against the impact fee for the portion of ad valorem tax and utility service revenues generated by new service units during the program period that is used for the payment of capital improvements, including the payment of debt, that are included in the capital improvements plan; or
- A credit equal to 50 percent of the total projected cost of implementing the capital improvements plan.

The City of El Paso does not use ad valorem taxes to assist in paying for utility projects, so the ad valorem language does not apply. A credit recognizing the utility service revenues generated by new service units during the capital program period that is used for the payment of capital improvements, including the payment of debt, that are included in the capital improvements plan is warranted and is what has been used since EPWater first adopted impact fees and is what has been used again in this update.

The calculated credit represents the approximation of the utility service revenue projected to be provided by the new service units that may be used to retire debt issued to fund the CIP upon which the impact fee is based. This rate credit to the impact fee prevents new service units from the potential of double counting or paying twice for utility capital improvements and related debt.

Raftelis conducted an analysis involving two scenarios to comprehend the ramifications of a net impact fee following the application of a credit to the maximum impact fee. Tables 5 through 12 illustrate the impact fee considering a maximum credit of 50 percent. Attachment H presents a schedule displaying the net impact fee under two scenarios: (1) Net Impact Fee after Revenue Credit (8.1% for Water and 20.1% for Wastewater) and (2) Net Impact Fee after Maximum Credit (50% for Water and Wastewater). The option displaying the Net Impact Fee after Maximum Credit, as depicted in Tables 5 through 12, results in lower fees.

**Table 5 - Impact Fee Credits per Service Unit Equivalent**

Service Area	Water			Wastewater			Total
	Max Impact Fee	Max Credit (50%)	Net Impact Fee	Max Impact Fee	Max Credit (50%)	Net Impact Fee	Net Impact Fee
Northeast	\$10,023	(\$5,012)	\$5,012	\$1,345	(\$672)	\$672	\$5,684
Westside	\$3,136	(\$1,568)	\$1,568	\$3,379	(\$1,689)	\$1,689	\$3,257
Eastside	\$14,954	(\$7,477)	\$7,477	\$21,008	(\$10,504)	\$10,504	\$17,981

# Impact Fee Assessment Schedule

The impact fee assessment schedule follows established guidelines in “scaling up” or assessing the impact fee to recognize the greater demands placed on the system from larger connections. As stated above, the incremental method is used to calculate the impact fee for a ¾ inch meter or for an equivalent residential unit. For meters ¾ inch and larger the American Water Works Association (AWWA) standard ratios are used. These guidelines define the ¾ inch meter as one unit, and all other meters as a multiple of the ¾ inch meter. These ratios are based on the maximum flow capacities for the various meters. Table 6 displays the Northeast service area impact fees calculated according to AWWA standards; the resulting “Meter Capacity Ratio”.

**Table 6 - Northeast Water and Wastewater Impact Fee Assessment Schedule (Net Fee after Credit)**

Meter Size	Meter Capacity Ratio	Water	Wastewater	Total
Less than 1-Inch	1.00	\$5,012	\$672	\$5,684
1-Inch	1.67	8,370	1,122	9,492
1 1/2-Inch	3.33	16,690	2,238	18,928
2-Inch	5.33	26,714	3,582	30,296
3-Inch	10.00	50,120	6,720	56,840
4-Inch	16.67	83,550	11,202	94,752
6-Inch	33.33	167,050	22,398	189,448
8-Inch	53.33	\$267,290	\$35,838	\$303,128

Attachment H provides a schedule for all impact fee service areas. Tables 7 through 9 compare the current and calculated water, wastewater, and total impact fees for each service area. It should be noted that the current fees are those adopted in 2009 by the El Paso City Council and is a material factor in the increase in the calculated fees. The Eastside Service Area has the greatest impact, which is attributed to the portion of water projects associated with an Advanced Water Purification Facility and wastewater projects associated with Bustamante Wastewater Treatment Plant.

**Table 7 - Northeast Impact Fee Comparison (Net Fee after 50% Credit)**

Meter Size	Water		Wastewater		Total		Change in Total Fee	
	Current	Calculated	Current	Calculated	Current	Calculated	\$	%
Less than 1-Inch	\$1,178	\$5,012	\$291	\$672	\$1,469	\$5,684	\$4,215	287%
1-Inch	1,967	8,370	486	1,122	2,453	9,492	\$7,039	287%
1 1/2-Inch	3,921	16,690	969	2,238	4,890	18,928	14,038	287%
2-Inch	6,276	26,714	1,551	3,582	7,827	30,296	22,469	287%
3-Inch	11,775	50,120	2,910	6,720	14,685	56,840	42,155	287%
4-Inch	19,629	83,550	4,851	11,202	24,480	94,752	70,272	287%
6-Inch	39,246	167,050	9,699	22,398	48,945	189,448	140,503	287%
8-Inch	62,796	\$267,290	15,519	\$35,838	78,315	\$303,128	224,813	287%

**Table 8 - Westside Impact Fee Comparison Schedule (Net Fee after 50% Credit)**

Meter Size	Water		Wastewater		Total		Change in Total Fee	
	Current	Calculated	Current	Calculated	Current	Calculated	\$	%
Less than 1-Inch	\$659	\$1,568	\$927	\$1,689	\$1,586	\$3,257	\$1,671	105%
1-Inch	1,101	2,619	1,548	2,821	2,649	5,439	2,790	105%
1 1/2-Inch	2,195	5,221	3,087	5,624	5,282	10,846	5,564	105%
2-Inch	3,514	8,357	4,941	9,002	8,455	17,360	8,905	105%
3-Inch	6,593	15,680	9,270	16,890	15,863	32,570	16,707	105%
4-Inch	10,990	26,139	15,453	28,156	26,443	54,294	27,851	105%
6-Inch	21,973	52,261	30,897	56,294	52,870	108,556	55,686	105%
8-Inch	35,158	83,621	49,437	90,074	84,595	173,696	\$89,101	105%



**Table 9 - East Impact Fee Comparison Schedule (Net Fee after 50% Credit)**

Meter Size	Water		Wastewater		Total		Change in Total Fee	
	Current	Calculated	Current	Calculated	Current	Calculated	\$	%
Less than 1-Inch	\$697	\$7,477	\$920	\$10,504	\$1,617	\$17,981	\$16,364	1012%
1-Inch	1,163	12,847	1,537	17,542	2,700	30,028	27,328	1012%
1½-Inch	2,321	24,898	3,065	34,978	5,386	59,877	54,491	1012%
2-Inch	3,714	39,852	4,905	55,986	8,619	95,839	87,220	1012%
3-Inch	6,968	74,770	9,203	105,040	16,171	179,810	163,639	1012%
4-Inch	11,615	124,642	15,341	175,102	26,956	299,743	272,787	1012%
6-Inch	23,223	249,208	30,672	350,098	53,895	599,307	545,412	1012%
8-Inch	37,158	398,748	49,077	560,178	86,235	958,927	872,692	1012%

Tables 10 through 12 provide a comparison of the current impact fees adopted in 2019 and the calculated Net Impact Fee after reducing by the Max Credit. This comparison is acutely relevant due to the dramatic increase in costs since 2019.

**Table 10 - Northeast Current versus Calculated**

Meter Size	Current	Calculated
Less than 1-Inch	\$1,469	\$5,684
1-Inch	2,453	9,492
1½-Inch	4,890	18,928
2-Inch	7,827	30,296
3-Inch	14,685	56,840
4-Inch	24,480	94,752
6-Inch	48,945	189,448
8-Inch	78,315	\$303,128

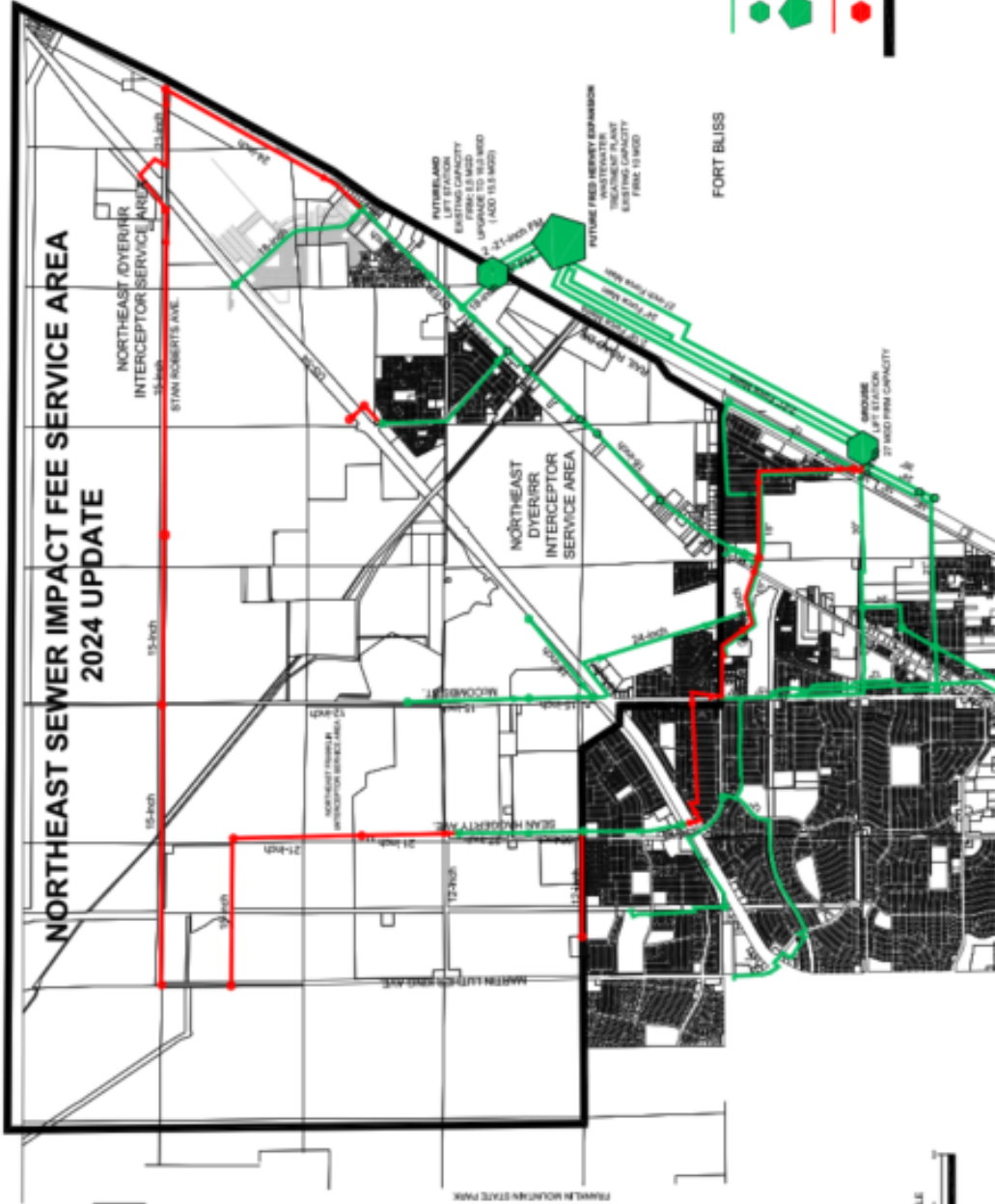
**Table 11 - West Current versus Calculated**

Meter Size	Current	Calculated
Less than 1-Inch	\$1,586	\$3,257
1-Inch	2,649	5,439
1½-Inch	5,282	10,846
2-Inch	8,455	17,360
3-Inch	15,863	32,570
4-Inch	26,443	54,294
6-Inch	52,870	108,556
8-Inch	84,595	173,696

**Table 12 - Eastside Current versus Calculated**

Meter Size	Current	Calculated
Less than 1-Inch	\$1,617	\$17,981
1-Inch	2,700	30,028
1½-Inch	5,386	59,877
2-Inch	8,619	95,839
3-Inch	16,171	179,810
4-Inch	26,956	299,743
6-Inch	53,895	599,307
8-Inch	86,235	958,927





# NORTHEAST SEWER IMPACT FEE SERVICE AREA 2024 UPDATE

NORTHEAST DYER/RR  
INTERCEPTOR SERVICE AREA

NORTHEAST  
DYER/RR  
INTERCEPTOR  
SERVICE AREA

FORT BLISS

- LEGEND:**
- EXISTING SEWER PIPELINES
  - EXISTING LIFT STATIONS
  - EXISTING TREATMENT PLANT
  - PROPOSED SEWER PIPELINES
  - PROPOSED LIFT STATIONS
  - NORTHEAST IMPACT FEE SERVICE AREA















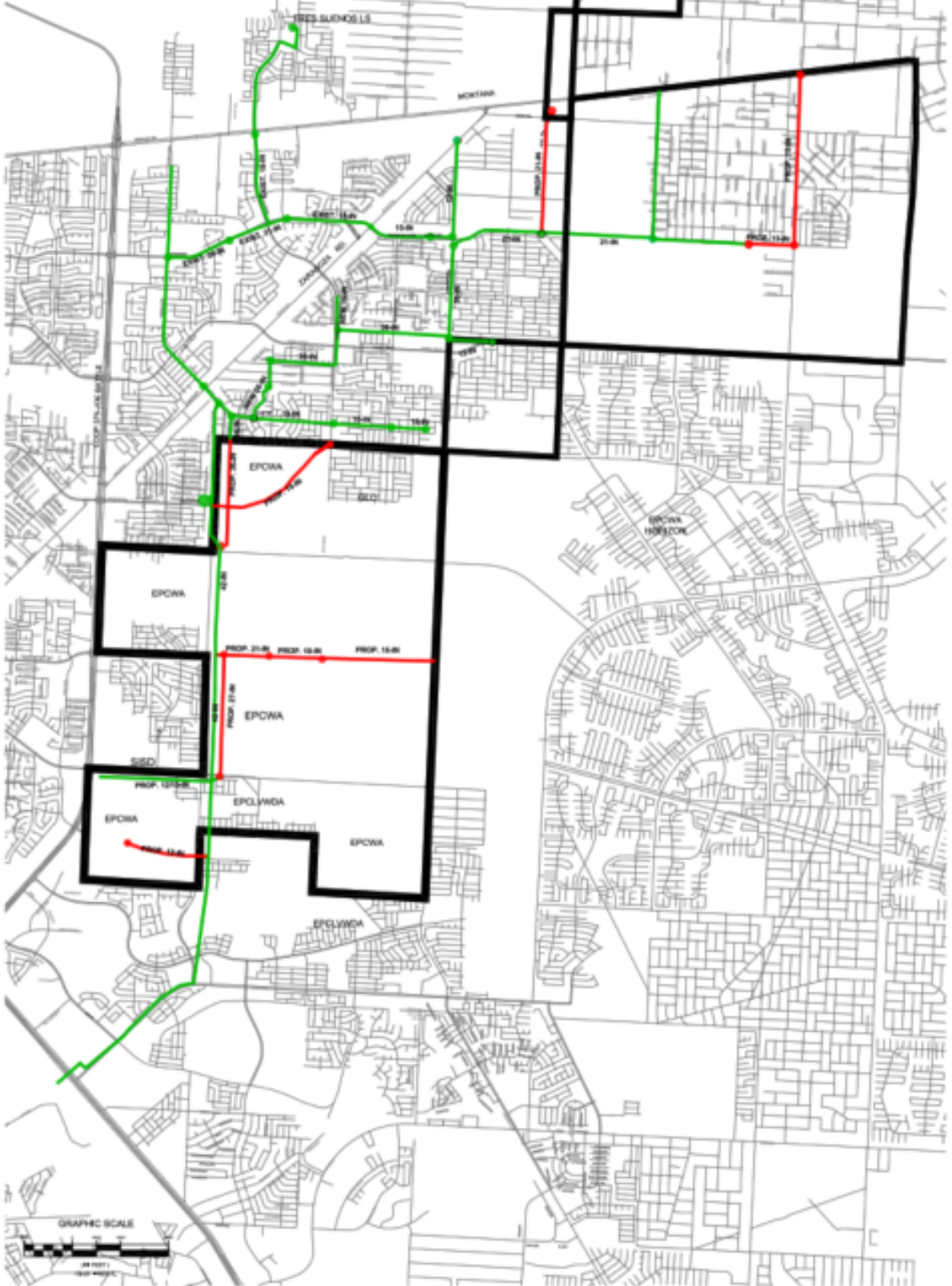


# EASTSIDE SEWER IMPACT FEE SERVICE AREA 2024 UPDATE



## LEGEND

-  EXISTING SEWER PIPELINES
-  EXISTING LIFT STATIONS
-  EXISTING TREATMENT PLANT
-  PROPOSED SEWER PIPELINES
-  PROPOSED LIFT STATIONS
-  EASTSIDE IMPACT FEE SERVICE AREA



## Attachment B: Land Use Assumptions

Service Area	2033 Share of Development	Total Acreage	Non-Residential								Conventional Residential					Mixed Use	
			Transportation	Commercial	Industrial	Parkland	Floodplain	Open Space	Undeveloped	Institutional/Utilities	Low	Medium	Medium-High	High	Total		
<b>Northeast</b>																	
01 Northeast MP	80%	4,835	99	300		255			968	20						0	2,740
05A Northwest Fort Bliss A	25%	4,812	260	5	2,098	38			229				775	229	51	1,055	304
05B Northwest Fort Bliss B	50%	4,929	446	304	1,371	9			348				172	1,649	37	1,858	498
05C Northwest Fort Bliss C	10%	4,520	154		2,201	23			51				303			303	
<b>Northeast Subtotal</b>		<b>19,096</b>	<b>959</b>	<b>609</b>	<b>5,670</b>	<b>325</b>	<b>0</b>	<b>1,596</b>	<b>20</b>	<b>3,159</b>	<b>0</b>	<b>1,250</b>	<b>1,878</b>	<b>88</b>	<b>3,216</b>	<b>3,542</b>	
<b>Westside</b>																	
02 Westside MP	7%	1,589	91						1,483							0	
03A Northwest Vinton A	20%	294	58	105									79			79	
03E I-10375 MP	60%	1,132	71	220	20	34	57		50				581		9	590	60
04A Northwest Artcraft A	20%	1,639	75	52		4			106	150			1,252			1,252	
04B Northwest Artcraft B	30%	807	38	36		6			17				694			694	
04C Northwest Artcraft C	50%	159	15	5	26					16			17	77		94	
04D Northwest Artcraft D	90%	218	25	11			3			22			147		10	157	
04E Canutillo	95%	801	133	141	42					10			371	21	34	426	
02B (Other)	80%	2,348	315	622	318								826	24	43	893	
<b>Westside Subtotal</b>		<b>8,987</b>	<b>821</b>	<b>1,192</b>	<b>406</b>	<b>44</b>	<b>60</b>	<b>1,656</b>	<b>198</b>	<b>365</b>	<b>17</b>	<b>4,027</b>	<b>45</b>	<b>96</b>	<b>4,185</b>	<b>60</b>	
<b>Eastside</b>																	
08B Eastside	40%	4,826	509	471	802	186			23	228			167	2,388	13	2,568	
12 South Montana	80%	2,919	347	247	138					242			1,716	38	70	1,824	
12B South Montana B	90%	785	98	77	99	20							25	419		444	
06 South Fort Bliss	70%	118	3		22								93			93	
08 East Battle	60%	2,826	440	166	308	40				370			740	681		1,421	
10B South Fort Bliss B	70%	538	21										45	472		517	
<b>Eastside Subtotal</b>		<b>12,012</b>	<b>1,418</b>	<b>961</b>	<b>1,369</b>	<b>246</b>	<b>0</b>	<b>23</b>	<b>840</b>	<b>288</b>	<b>0</b>	<b>2,786</b>	<b>3,998</b>	<b>83</b>	<b>6,867</b>	<b>0</b>	
<b>Total</b>		<b>40,095</b>	<b>3,198</b>	<b>2,762</b>	<b>7,445</b>	<b>615</b>	<b>60</b>	<b>3,275</b>	<b>1,058</b>	<b>3,812</b>	<b>17</b>	<b>8,063</b>	<b>5,921</b>	<b>267</b>	<b>14,268</b>	<b>3,602</b>	



Attachment B: Land Use Cont.

Service Area	Build-Out Non-Residential Service Units			Build-Out Conventional Service Units					Mixed Use	Build-Out	Build-Out Non-
	Commercial	Institutional	Industrial	Low	Medium	Medium-High	High	Total	Mixed Use	Residential	Residential
<b>Northeast</b>								0			
01 Northeast MP	2,175		-	-	-	-	-	0	16,440	16,440	2,175
05A Northwest Fort Bliss A	36		15,211	-	3,488	1,374	459	5,321	1,824	7,145	15,247
05B Northwest Fort Bliss B	2,204		9,940	-	774	9,894	333	11,001	2,988	13,989	12,144
05C Northwest Fort Bliss C	-		15,957	-	1,364	-	-	1,364	0	1,364	15,957
<b>Northeast Subtotal</b>	<b>4,415</b>	<b>0</b>	<b>41,108</b>	<b>0</b>	<b>5,625</b>	<b>11,268</b>	<b>792</b>	<b>17,685</b>	<b>21,252</b>	<b>38,937</b>	<b>45,523</b>
<b>Westside</b>											
02 Westside MP	-		-	-	-	-	-	-	-	-	-
03A Northwest Vinton A	761		-	-	356	-	-	356	-	356	761
03E I-10375 MP	1,595		145	-	2,615	-	540	3,155	360	3,515	1,740
04A Northwest Artcraft A	377		-	-	5,634	-	-	5,634	-	5,634	377
04B Northwest Artcraft B	261		-	-	3,123	-	-	3,123	-	3,123	261
04C Northwest Artcraft C	36		189	34	347	-	-	381	-	381	225
04D Northwest Artcraft D	80		-	-	662	-	90	752	-	752	80
04E Canutillo	935		305	-	1,670	126	306	2,102	-	2,102	1,240
02B Other	4,510		2,306	-	3,717	144	387	4,248	-	4,248	6,815
<b>Westside Subtotal</b>	<b>8,555</b>	<b>-</b>	<b>2,944</b>	<b>34</b>	<b>18,122</b>	<b>270</b>	<b>1,323</b>	<b>19,749</b>	<b>360</b>	<b>20,109</b>	<b>11,498</b>
<b>Eastside</b>											
08B Eastside	3,415		5,815	-	752	14,328	117	15,197	-	15,197	9,229
12 South Montana	1,791		1,001	-	7,722	228	630	8,580	-	8,580	2,791
12B South Montana B	558		718	-	113	2,514	-	2,627	-	2,627	1,276
06 South Fort Bliss	-		160	-	419	-	-	419	-	419	160
08 East Battle	1,204		2,233	-	3,330	4,086	-	7,416	-	7,416	3,437
10B South Fort Bliss B	-		-	-	203	2,832	-	3,035	-	3,035	-
<b>Eastside Subtotal</b>	<b>6,967</b>	<b>-</b>	<b>9,925</b>	<b>-</b>	<b>12,537</b>	<b>23,988</b>	<b>747</b>	<b>37,272</b>	<b>-</b>	<b>37,272</b>	<b>16,893</b>
<b>Total</b>	<b>19,937</b>	<b>-</b>	<b>53,976</b>	<b>34</b>	<b>36,284</b>	<b>35,526</b>	<b>2,862</b>	<b>74,706</b>	<b>21,612</b>	<b>96,318</b>	<b>73,914</b>

Attachment B: Land Use Cont.

Residential Land Use Type	Residential Service Units per Acre
<b>Conventional Residential Zones</b>	
Low Density	2.0
Medium Density	4.5
Medium High Density	6.0
High Density	9.0
<b>SmartCode Zone<sup>1</sup></b>	
T-3 Sub-Urban Zone	6.0
T-4 General Urban Zone	15.0
T-40 General Urban Zone - Open	20.0
T-5 Urban Center Zone	24.0
<b>Northeast Retirement General Mixed Use Zone<sup>2</sup></b>	
Context Zone 3	3.6
Context Zone 4	6.4
Context Zone 5	15.0
<b>Northeast General Mixed Use Zone<sup>3</sup></b>	
Low Residential Density	3.5
Low <sup>1</sup> Residential Density	5.5
Medium Residential Density	7.2
High Residential Density	12.0
<b>Enchanted Hills Residential Mixed Use Zone<sup>4</sup></b>	
Single Family	4.0
Duplex	6.0
Triplex	8.0
Quadruplex	10.0
Apartments	14.0

<sup>1</sup>Applied to Northeast properties zoned SmartCode.

<sup>2</sup>Applied to the Northeast master planned area intended to house a retirement community.


<sup>3</sup>Applied to the remaining Northeast master planned area zoned General Mixed Use.

<sup>4</sup>Applied to the privately owned Enchanted Hills development zoned Residential Mixed Use.



**Date:** December 20, 2023

**To:** Andrew Rheem  
Raftelis Financial Consultants, Inc.

**From:** Adriana L. Castillo., P.E.   
Utility Engineering Division Manager

**Re: Water and Wastewater Capital Improvements Plan– 2024 Impact Fee update**

In preparation for the 2024 Impact Fee Update and in accordance with the Texas State Statutes, Local Government Code, Chapter 395, attached please find a description of the proposed Capital Improvements Plan for the El Paso Water Utilities.

**Attachment C** contains a narrative description of the proposed 10-year capital improvements plan necessitated by and attributed to new development per service area.

**Attachment D** contains a list of the proposed 10-year capital improvements plan costs necessitated by and attributed to new development per service area.

**Maps** depicting the proposed water and wastewater capital improvements plan for the three (3) service areas

This information provides the capital improvements plan and costs required to complete the 2024 update and meet the letter and intent of the Texas State Statues.

Please feel free to contact me with any questions.



12/20/23

A handwritten signature in blue ink that reads "Adriana Castillo".

## Attachment C: Capital Improvements Plan

*Memo: Water & Wastewater Impact Fee Update 2024*

### **Associated Capital Improvement Water Facilities**

#### **WATER SUPPLY AND TREATMENT SYSTEM**

**ADVANCED WATER PURIFICATION FACILITY** – The efforts by EPWater to continue to diversify the City’s water supply portfolio will allow growth demand in the eastside to be met by the Advanced Water Purification Facility producing 10 MGD. The facility includes the wells and blending lines to comply with adequate water quality standards.

**KBH EXPANSION Phase 1**–In order to meet growth demand in the eastside and northeast, the KBH desalination facility will be expanded to provide an additional 5.0 MGD. The facility expansion includes a new Reverse Osmosis skid and concentrate pipelines.

#### **RESERVOIRS**

**LOMA REAL A** proposed 5.0 MG ground storage tank to meet demand on the East High Pressure Zone and provide suction for the Loma Real Pump Station that will pump water to the proposed Franklin East 1 B reservoir.

**FRANKLIN EAST #1B** - A proposed 3.0 MG ground storage tank to serve the Franklin East 1 Pressure Zone. The tank is needed to meet future growth development of the areas east of War Highway and to the State line.

**TRANSMOUNTAIN NORTHWEST #1A** – A proposed 4.0 MG ground storage tank north of Transmountain on the Westside, at the same overflow elevation of Arcraft No. 1, to meet anticipated growth and provide suction storage for the proposed Transmountain Northwest 1 pump station.

**TRANSMOUNTAIN NORTHWEST #2A** – A proposed 3.0 MG tank north of Transmountain on the Westside, at the same overflow elevation of Arcraft No. 2, to meet anticipated growth.

**TRANSMOUNTAIN NORTHWEST #3** – A proposed 1.0 MG tank north of Transmountain on the Westside, at the same overflow elevation of Arcraft No. 3, to meet anticipated growth.

**NORTHEAST STATION WELL SUPPLY TANK** – A new 2.0 MG ground storage supply tank in Northeast El Paso, adjacent to the Northeast Booster Station. This tank is needed to augment the existing storage capacity of the Northeast Well production system, and to accommodate future supply from the Sherman Well Field. This storage tank will also allow for additional pumping capacity to be installed at the Northeast Booster Station for pumping into the East High Pressure Zone and upper Franklin East Pressure Zone pumping, related future growth.

**HOMESTEAD II** – A proposed 2.5 MGD elevated storage tank to provide service on the Eastside south of the Montana Ave. corridor to meet demand for future growth on the East Montana Pressure Zone.

**JOHN HAYES/VISTA DEL SOL** – A proposed 2.5 MGD elevated storage tank to provide service on the Eastside east of Loop 375 to meet demand for future growth on the Joe Battle Pressure Zone.

### **DISTRIBUTION PUMPING EQUIPMENT**

**ARTCRAFT #1 NW** – A 20.0 MGD pumping station located at Northwestern and Paseo Del Norte (Arcraft Rd) in Northwest El Paso, was completed in late 2002 and will supply Arcraft #2 Reservoir. An additional 5.0 MGD will be added to meet growth demands.

**TRANSMOUNTAIN NORTHWEST #1 PUMP STATION** – A proposed 3.0 MGD pump station north of Transmountain on the Westside, to pump from Transmountain #1 tank to Transmountain #2 tank to meet growth demand.

**TRANSMOUNTAIN NORTHWEST #2 PUMP STATION** – A proposed 1.0 MGD pump station north of Transmountain on the Westside, to pump from Transmountain #2 tank to Transmountain #3 tank to meet growth demand.

**LOMA REAL** Pump station to be located at the Loma Real tank site with an initial 6.0 MGD capacity which will provide pumping to supply the Franklin East 1 B reservoir.

### **DISTRIBUTION LINES**

**CANUTILLO/UV TRANSMISSION MAIN - NORTHWEST PHASE IV** – Part of an existing major system of large diameter pipelines that extends and delivers water supply from the Canutillo Well Field and the Upper Valley Treatment Plant to the Westside area.

**SUPPLY LINE TO TRANSMOUNTAIN#1 TANK-** A proposed 48-inch diameter transmission main on the Westside, from the Canutillo 60" diameter main to the Transmountain Northwest #1A tank, to meet growth.

**TRANSMOUNTAIN NW SUPPLY TO TRANSMOUNTAIN #1** - A proposed transmission main on the Westside, from the Transmountain Northwest #1 pump station to the Transmountain Northwest Tank 2 to meet growth demand.

**TRANSMOUNTAIN NW SUPPLY TO TRANSMOUNTAIN #2** - from the Transmountain Northwest #2 pump station to the Transmountain Northwest Tank 3 to meet growth demand.

**UPPER VALLEY BORDERLAND SYSTEM** Part of the Westside upgrades to meet future growth the project consists of the installation of a 36-inch transmission main, part of the system of large diameter pipelines that extends and delivers water supply on the Westside area.



**EASTSIDE PLANNED SERVICE AREA (PSA)** – Proposed transmission main lines necessary to serve areas east of Loop 375. Extensions of transmission mains associated with the construction of future elevated tanks. This item provides the backbone for the water distribution to meet demand.

**CANUTILLO- LA UNION/WESTSIDE SYSTEM** – Proposed transmission mains necessary to serve areas generally located north of Borderland Road and West of Strahan Road to provide water distribution to serve future growth.

**MONTANA EAST SUPPLY LINES**– Water distribution mains that have been conceptually planned to provide service on the Eastside, south of the Montana Ave. corridor. This item considers the mains that create a backbone network of water transmission mains (16-inch to 24-inch) to supply these areas.

**DYER / RR WATER LINES** – A series of planned water mains to convey water to the far northeast part of the city. The proposed pipeline will tie into the Franklin East Distribution Line near the intersection of Stan Roberts Dr. and US-54.

**NE FRANKLIN SYSTEM LINES** – A network of water distribution mains, generally 16-inch to 24-inch, to be constructed within the Franklin East #1 Pressure Zone service areas in response to and in step with growth.

**FRANKLIN EAST DISTRIBUTION LINES** – Water distribution mains, generally 24-inch to be constructed within the Franklin East #1 Pressure Zones service area located in the vicinity of Stan Roberts Drive and US54.

### **Associated Capital Improvement Wastewater Facilities**

#### **COLLECTION LINES**

**NE DYER/RR INTERCEPTOR** - Gravity sewer line extending near Stan Roberts Drive and Dyer St. that convey wastewater flows to the Fred Hervey Reclamation Plant. This system will service future development in the Northeast.

**OTHER EAST INTERCEPTORS (Area 8 East)** – Gravity sewer interceptors related to development east of Zaragoza and Loop 375 for the area commonly known as Montana Vista and adjacent growth areas.

**LOOP 375 EAST INTERCEPTOR SYSTEM** - These multi-phase, multi-year gravity sewer interceptors will serve areas east of Loop 375. All interceptors in this program will ultimately transport flow to the Bustamante Wastewater Treatment Plant via the Eastside Interceptor System already constructed.

**TRANSMOUNTAIN NORTHWEST INTERCEPTORS** – Proposed gravity sewer interceptors necessary to serve areas north of Transmountain Road and east of IH-10 on the Westside to meet growth.

**NE INTERCEPTOR SYSTEM** – Gravity sanitary sewer interceptors to include relief lines to convey wastewater flows from land in the Northeast area. The sanitary sewer pipeline will extend from north of US-54, and south crossing US-54 to the existing Grouse Street Lift Station or the Dyer Railroad Lift Station. The wastewater will ultimately be treated at the Fred Hervey Water Reclamation Plant. This is a multi-year, multi-phase project.

**NE FRANKLIN SYSTEM** – Pipeline designed to collect and convey wastewater flows from the proposed Northeast Service Area. Flows will be collected from near the Texas-New Mexico border, to include the Sean Haggerty Interceptor and conveying flows to the existing Grouse Street Lift Station, where the wastewater will ultimately be treated at the Fred Hervey Water Reclamation Plant. This is a multi-year, multi-phase project.

### **PUMPING STATIONS AND FORCE MAINS**

**UPPER VALLEY THREE LIFT STATIONS** – A series of lift stations (1.5, 2.5, 3.5 MGD) proposed for new developments north of Borderland Rd. along the Strahan Rd. corridor. These stations will ultimately discharge into the Strahan Interceptor that will extend and connect into the Easy Way II Lift Station.

**CANUTILLO BOSQUE LIFT STATION** – Pro-rated lift station capacity needed for portion of the service area located north of Canutillo – La Union. This station flows will ultimately discharge into the Mowad Interceptor and connect into the Easy Way II Lift Station.

### **TREATMENT PLANT EXPANSION**

**BUSTAMANTE WWTP EXPANSION** – Multi-approach construction project to expand the capacity of the Bustamante Wastewater Treatment Plant from 39.0 MGD to 51.0 MGD.

## Attachment D: Capital Improvement Plan Cost Projection

### ATTACHMENT D Water and Wastewater Impact Fee Study Proposed Capital Improvements and Costs

<b>Northeast Service Area - Water</b>		<b>Capital Cost</b>
<u>Water Supply and Treatment System</u>		
KBH Expansion Phase 1 (2.5 MG)		\$ 17,000,000
Subtotal:	\$	17,000,000
<u>Water Distribution System</u>		
Reservoirs		
Loma Real Tank - Ground (5 MG)	\$	15,000,000
Franklin East 1B - Ground (3 MG)	\$	9,000,000
NE Station Well Supply Tank (2 MG)	\$	6,000,000
Subtotal:	\$	30,000,000
Distribution Pumping Equipment		
Loma Real Pump Station (6 MGD)	\$	22,000,000
Subtotal:	\$	22,000,000
Distribution Lines		
Dyer/RR Waterline	\$	2,300,000
Franklin East Distribution	\$	6,800,000
NE Franklin System	\$	37,000,000
Subtotal:	\$	46,100,000
<b>Total Water CIP</b>	<b>\$</b>	<b>115,100,000</b>

<b>Northeast Service Area - Wastewater</b>		<b>Capital Cost</b>
<u>Wastewater Treatment System</u>		
No wastewater treatment CIP proposed	\$	-
<u>Collection System</u>		
Lines		
NE Dyer/RR Interceptor	\$	10,300,000
NE Interceptor System	\$	26,000,000
NE Franklin	\$	6,000,000
Subtotal:	\$	42,300,000
<b>Total Wastewater CIP</b>	<b>\$</b>	<b>42,300,000</b>



**ATTACHMENT D (continued)**  
**Water and Wastewater Impact Fee Study**  
**Proposed Capital Improvements and Costs**

<b>Westside Service Area - Water</b>	<b>Capital Cost</b>
<u>Water Supply and Treatment System</u>	
No water supply or treatment system CIP proposed	\$ -
<u>Water Distribution System</u>	
Reservoirs	
TransMountain NW #1A (4 MG)	\$ 12,000,000
TransMountain NW #2A (3 MG)	\$ 9,000,000
TransMountain NW #3 (1 MG)	\$ 3,000,000
Subtotal:	\$ 24,000,000
Distribution Pumping Equipment	
Artcraft #1-NW-WFMP	\$ 7,500,000
TransMountain NW #1 Pump Station (3 MGD)	\$ 6,000,000
TransMountain NW#2 Pump Station (1 MGD)	\$ 2,000,000
Subtotal:	\$ 15,500,000
Distribution Lines	
48" Supply Line to TransMountain #1 Tank	\$ 5,000,000
Canutillo/UV Mn NWPH IV (36" Thorn)	\$ 18,500,000
36" TransMountain #1 BS to TransMountain #2 Tank	\$ 8,000,000
24" TransMountain #2 BS to TransMountain #3 Tank	\$ 4,000,000
Upper Valley Borderland 36" Phase 2A	\$ 35,500,000
Upper Valley Borderland 36" Phase 4	\$ 21,600,000
16" Canutillo La Union/Westside Dr (Gato to Borderland) Phase 1	\$ 2,000,000
16" Canutillo La Union/Westside Dr (Gato to Borderland) Phase 2	\$ 3,000,000
16" Canutillo La Union/Westside Dr (Gato to Borderland) Phase 3	\$ 3,000,000
Subtotal:	\$ 100,600,000
<b>Total Water CIP</b>	<b>\$ 140,100,000</b>
<hr/>	
<b>Westside Service Area - Wastewater</b>	<b>Capital Cost</b>
<u>Wastewater Treatment System</u>	
No wastewater treatment CIP proposed	\$ -
<u>Collection System</u>	
Lines	
TransMountain NW Interceptors	\$ 2,500,000
Subtotal:	\$ 2,500,000
Pumping & Force Mains	
Upper Valley 3 LS (1.5+3.5+2.5 MGD) and Force Mains	\$ 50,000,000
Canutillo/Bosque LS (Schuman & Wester Village)	\$ 300,000
Subtotal:	\$ 50,300,000
<b>Total Wastewater CIP</b>	<b>\$ 52,800,000</b>

**ATTACHMENT D (continued)**  
**Water and Wastewater Impact Fee Study**  
**Proposed Capital Improvements and Costs**

<b>Eastside Service Area - Water</b>	<b>Capital Cost</b>
<u>Water Supply and Treatment System</u>	
KBH Phase 2 (2.5 MG)	\$ 17,000,000
Advanced Water Purification Facility (8 MG)	\$ 173,000,000
Subtotal:	\$ 190,000,000
<u>Water Distribution System</u>	
Reservoirs	
Homestead II Tank (2.5 MG)	\$ 15,000,000
John Hayes (2.5 MG)	\$ 15,000,000
Subtotal:	\$ 30,000,000
Distribution Lines	
Eastside Planned Service Area	\$ 25,500,000
Montana East Supply Line Area (E&W, N&S, Darrington)	\$ 21,000,000
Subtotal:	\$ 46,500,000
<b>Total Water CIP</b>	<b><u>266,500,000</u></b>

<b>Eastside Service Area - Wastewater</b>	<b>Capital Cost</b>
<u>Wastewater Treatment System</u>	
Bustamante WWTP (Expansion 39 to 51 MGD)	\$ 605,100,000
<u>Collection System</u>	
Lines	
Other Interceptors (Area 8 East)	\$ 12,700,000
Loop 375 East Interceptor System	\$ 14,300,000
Subtotal:	\$ 27,000,000
Pumping & Force Mains	
No wastewater pumping & force main CIP proposed	-
<b>Total Wastewater CIP</b>	<b><u>\$ 632,100,000</u></b>

## Attachment E Impact Fee Calculation by Service Area

**ATTACHMENT E  
Water and Wastewater Impact Fee Study  
Northeast Service Area**

Water Service Unit Flows (Max Day) 688 gpd

Line No.	Northeast Service Area - Water	Capital Cost	Capacity (MGD)	Total Service Units	Unit Cost of Capacity	Weighted Average
<b>Water Supply and Treatment System</b>						
1	KBH Expansion Phase 1 (2.5 MG)	\$ 17,000,000	2.50	3,634	\$ 4,678	
	Subtotal	\$ 17,000,000		3,634		\$ 4,678
<b>Debt Issued</b>						
2	KBH Expansion Phase 1 (2.5 MG)	\$ 6,050,000				
	Subtotal	\$ 6,050,000				
<b>NPV of Interest</b>						
3	KBH Expansion Phase 1 (2.5 MG)	\$ 2,564,902	2.50	3,634	706	
	Subtotal	\$ 2,564,902		3,634		\$ 706
<b>Reservoirs</b>						
4	Loma Real Tank - Ground (5 MG)	\$ 15,000,000	5.00	14,535	\$ 1,032	
5	Franklin East 1B - Ground (3 MG)	\$ 9,000,000	3.00	8,721	\$ 1,032	
6	NE Station Well Supply Tank (2 MG)	\$ 6,000,000	2.00	5,814	\$ 1,032	
	Subtotal	\$ 30,000,000		29,070		\$ 1,032
<b>Debt Issued</b>						
7	Loma Real Tank - Ground (5 MG)	\$ 5,335,000				
8	Franklin East 1B - Ground (3 MG)	\$ 3,205,000				
9	NE Station Well Supply Tank (2 MG)	\$ 2,135,000				
	Subtotal	\$ 10,675,000				
<b>NPV of Interest</b>						
10	Loma Real Tank - Ground (5 MG)	\$ 2,261,777	5.00	14,535	\$ 156	
11	Franklin East 1B - Ground (3 MG)	\$ 1,358,762	3.00	8,721	\$ 156	
12	NE Station Well Supply Tank (2 MG)	\$ 905,135	2.00	5,814	\$ 156	
	Subtotal	\$ 4,525,674		29,070		\$ 156
<b>Distribution Pumping Equipment</b>						
13	Loma Real Pump Station (6 MGD)	\$ 22,000,000	6.00	8,721	\$ 2,523	
	Subtotal	\$ 22,000,000		8,721		\$ 2,523
<b>Debt Issued</b>						
14	Loma Real Pump Station (6 MGD)	\$ 7,825,000				
	Subtotal	\$ 7,825,000				
<b>NPV of Interest</b>						
15	Loma Real Pump Station (6 MGD)	\$ 3,317,414	6.00	8,721	\$ 380	
	Subtotal	\$ 3,317,414		8,721		\$ 380
<b>Distribution Lines</b>						
16	Dyer/RR Waterline	\$ 2,300,000	28.00	40,698	\$ 57	
17	Franklin East Distribution	\$ 6,800,000	28.00	40,698	\$ 167	
18	NE Franklin System	\$ 37,000,000	28.00	40,698	\$ 909	
	Subtotal	\$ 46,100,000		122,093		\$ 378
<b>Debt Issued</b>						
20	Dyer/RR Waterline	\$ 820,000				
21	Franklin East Distribution	\$ 2,420,000				
22	NE Franklin System	\$ 13,160,000				
23	0	\$ -				
	Subtotal	\$ 16,400,000				
<b>NPV of Interest</b>						
24	Dyer/RR Waterline	\$ 347,640			\$ 171	
25	Franklin East Distribution	\$ 1,025,961	28.00	40,698	\$ 171	
26	NE Franklin System	\$ 5,579,191			\$ 171	
27	0	\$ -			\$ 171	
	Subtotal	\$ 6,952,792		40,698		\$ 171
28	<b>Maximum Water Impact Fee - Northeast Service Area (Capital and Financing)</b>					<b>\$ 10,023</b>

**ATTACHMENT E (continued)**  
**Water and Wastewater Impact Fee Study**  
**Northeast Service Area**

Wastewater Service Unit Flows (Max Day) 341 gpd

Line No.	Northeast Service Area - Wastewater	Capital Cost	Capacity (MGD)	Total Service Units	Unit Cost of Capacity	Weighted Average	
<b>Collection System</b>							
<u>Lines</u>							
29	NE Dyer/RR Interceptor	\$ 10,300,000	4.55	13,343	\$ 772		
30	NE Interceptor System	\$ 26,000,000	5.38	15,777	\$ 1,648		
31	NE Franklin	\$ 6,000,000	3.71	10,880	\$ 551	\$ 1,058	
	Subtotal	\$ 42,300,000		40,000			
<b>Debt Issued</b>							
32	NE Dyer/RR Interceptor	\$ 6,595,000					
33	NE Interceptor System	\$ 1,335,638					
34	NE Franklin	\$ 308,533					
	Subtotal	\$ 8,239,171					
<b>NPV of Interest</b>							
35	NE Dyer/RR Interceptor	\$ 2,795,955	4.55	13,343	\$ 210		
36	NE Interceptor System	\$ 7,056,660	5.38	15,777	\$ 447		
37	NE Franklin	\$ 1,630,091	3.71	10,880	\$ 150	\$ 287	
	Subtotal	\$ 11,482,705		40,000			
38	<b>Maximum Wastewater Impact Fee - Northeast Service Area (Capital and Financing)</b>					<b>\$ 1,345</b>	
39	<b>Maximum Northeast Water and Wastewater Impact Fee</b>					<b>\$ 11,368</b>	

**ATTACHMENT E (continued)**  
**Water and Wastewater Impact Fee Study**  
**Westside Service Area**

Water Service Unit Flows (Max Day)

688 gpd

Line No.	Westside Service Area	Capital Cost	Capacity (MGD)	Total Service Units	Unit Cost of Capacity	Weighted Average	
<b>Reservoirs</b>							
1	TransMountain NW #1A (4 MG)	\$ 12,000,000	4.00	11,628	\$ 1,032		
2	TransMountain NW #2A (3 MG)	\$ 9,000,000	3.00	8,721	\$ 1,032		
3	TransMountain NW #3 (1 MG)	\$ 3,000,000	1.00	2,907	\$ 1,032	\$1,032	
	Subtotal	\$ 24,000,000		23,256			
<b>Debt Issued</b>							
4	TransMountain NW #1A (4 MG)	\$ 4,270,000					
5	TransMountain NW #2A (3 MG)	\$ 3,205,000					
6	TransMountain NW #3 (1 MG)	\$ 1,070,000					
	Subtotal	\$ 8,545,000					
<b>NPV of Interest</b>							
7	TransMountain NW #1A (4 MG)	\$ 1,810,270	4.00	11,628	\$ 156		
8	TransMountain NW #2A (3 MG)	\$ 1,358,762	3.00	8,721	\$ 156		
9	TransMountain NW #3 (1 MG)	\$ 453,627	1.00	2,907	\$ 156	\$156	
	Subtotal	\$ 3,622,659		23,256			
<b>Distribution Pumping Equipment</b>							
10	Artcraft #1-NW-WFMP	\$ 7,500,000	5.00	7,267	\$ 1,032		
11	TransMountain NW #1 Pump Station (3 MGD)	\$ 6,000,000	3.00	4,360	\$ 1,376		
12	TransMountain NW#2 Pump Station (1 MGD)	\$ 2,000,000	1.00	1,453	\$ 1,376	\$1,185	
	Subtotal	\$ 15,500,000		13,081			
<b>Debt Issued</b>							
13	Artcraft #1-NW-WFMP	\$ 2,670,000					
14	TransMountain NW #1 Pump Station (3 MGD)	\$ 2,135,000					
15	TransMountain NW#2 Pump Station (1 MGD)	\$ 715,000					
	Subtotal	\$ 5,520,000					
<b>NPV of Interest</b>							
16	Artcraft #1-NW-WFMP	\$ 1,131,948	5.00	7,267	\$ 156		
17	TransMountain NW #1 Pump Station (3 MGD)	\$ 905,135	3.00	4,360	\$ 208		
18	TransMountain NW#2 Pump Station (1 MGD)	\$ 303,125	1.00	1,453	\$ 209	\$179	
	Subtotal	\$ 2,340,208		13,081			
<b>Distribution Lines</b>							
19	48" Supply Line to TransMountain #1 Tank	\$ 5,000,000	40.00	58,140	\$ 86		
20	Canutillo/UV Mn NWPH IV (36" Thorn)	\$ 18,500,000	22.00	31,977	\$ 579		
21	36" TransMountain #1 BS to TransMountain #2 Tank	\$ 8,000,000	22.00	31,977	\$ 250		
22	24" TransMountain #2 BS to TransMountain #3 Tank	\$ 4,000,000	5.00	7,267	\$ 550		
23	Upper Valley Borderland 36" Phase 2A	\$ 35,500,000	22.00	31,977	\$ 1,110		
24	Upper Valley Borderland 36" Phase 4	\$ 21,600,000	6.30	9,157	\$ 2,359	\$508	
25	16" Canutillo La Union/Westside Dr (Gato to Borderland) Phase 2	\$ 2,000,000	6.30	9,157	\$ 218		
26	16" Canutillo La Union/Westside Dr (Gato to Borderland) Phase 3	\$ 3,000,000	6.30	9,157	\$ 328		
27	16" Canutillo La Union/Westside Dr (Gato to Borderland) Phase 4	\$ 3,000,000	6.30	9,157	\$ 328		
	Subtotal	\$ 100,600,000		197,965			
<b>Debt Issued</b>							
28	48" Supply Line to TransMountain #1 Tank	\$ 1,780,000					
29	Canutillo/UV Mn NWPH IV (36" Thorn)	\$ 6,580,000					
30	36" TransMountain #1 BS to TransMountain #2 Tank	\$ 2,845,000					
31	24" TransMountain #2 BS to TransMountain #3 Tank	\$ 1,425,000					
32	Upper Valley Borderland 36" Phase 2A	\$ 12,625,000					
33	Upper Valley Borderland 36" Phase 4	\$ 7,685,000					
34	16" Canutillo La Union/Westside Dr (Gato to Borderland) Phase 2	\$ 715,000					
35	16" Canutillo La Union/Westside Dr (Gato to Borderland) Phase 3	\$ 1,070,000					
36	16" Canutillo La Union/Westside Dr (Gato to Borderland) Phase 4	\$ 1,070,000					
	Subtotal	\$ 35,795,000					
<b>NPV of Interest</b>							
37	48" Supply Line to TransMountain #1 Tank	\$ 754,632	40.00	58,140	\$ 13		
38	Canutillo/UV Mn NWPH IV (36" Thorn)	\$ 2,789,596	22.00	31,977	\$ 87		
39	36" TransMountain #1 BS to TransMountain #2 Tank	\$ 1,206,140	22.00	31,977	\$ 38		
40	24" TransMountain #2 BS to TransMountain #3 Tank	\$ 604,130	5.00	7,267	\$ 83		
41	Upper Valley Borderland 36" Phase 2A	\$ 5,352,378	22.00	31,977	\$ 167		
42	Upper Valley Borderland 36" Phase 4	\$ 3,258,061	6.30	9,157	\$ 356	\$77	
43	16" Canutillo La Union/Westside Dr (Gato to Borderland) Phase 2	\$ 303,125	6.30	9,157	\$ 33		
44	16" Canutillo La Union/Westside Dr (Gato to Borderland) Phase 3	\$ 453,627	6.30	9,157	\$ 50		
45	16" Canutillo La Union/Westside Dr (Gato to Borderland) Phase 4	\$ 453,627	6.30	9,157	\$ 50		
	Subtotal	\$ 15,175,316		197,965			
46	<b>Maximum Water Impact Fee - Westside Service Area (Capital and Financing)</b>					<b>\$ 3,136</b>	

ATTACHMENT E (continued)  
**Water and Wastewater Impact Fee Study**  
**Westside Service Area**

Wastewater Service Unit Flows (Max Day)

341 gpd

Line No.	Westside Service Area	Capital Cost	Capacity (MGD)	Total Service Units	Unit Cost of Capacity	Weighted Average
<b>Lines</b>						
47	TransMountain NW Interceptors	\$ 2,500,000	2.04	5,982	\$ 418	\$ 418
	Subtotal	\$ 2,500,000		5,982		
<b>Debt Issued</b>						
48	TransMountain NW Interceptors	\$ 1,605,000				
	Subtotal	\$ 1,605,000				
<b>NPV of Interest</b>						
49	TransMountain NW Interceptors	\$ 680,441	2.04	5,982	\$ 114	114
	Subtotal	\$ 680,441		5,982		
<b>Pumping &amp; Force Mains</b>						
50	Upper Valley 3 LS (1.5+3.5+2.5 MGD) and Force Mains	\$ 50,000,000	7.50	21,994	\$ 2,273	
51	Canutillo/Bosque LS (Schuman & Wester Village)	\$ 300,000	0.16	469	\$ 639	2,239
	Subtotal	\$ 50,300,000		22,463		
<b>Debt Issued</b>						
52	Upper Valley 3 LS (1.5+3.5+2.5 MGD) and Force Mains	\$ 32,005,000				
53	Canutillo/Bosque LS (Schuman & Wester Village)	\$ 195,000				
	Subtotal	\$ 32,200,000				
<b>NPV of Interest</b>						
54	Upper Valley 3 LS (1.5+3.5+2.5 MGD) and Force Mains	\$ 13,568,543	7.50	21,994	\$ 617	
55	Canutillo/Bosque LS (Schuman & Wester Village)	\$ 82,670	0.16	469	\$ 176	608
	Subtotal	\$ 13,651,213		22,463		
56	<b>Maximum Wastewater Impact Fee - Westside Service Area (Capital and Financing)</b>				<b>\$ 3,379</b>	
57	<b>Maximum Water and Wastewater Impact Fee - Westside Area</b>				<b>\$ 6,515</b>	

**ATTACHMENT E (continued)**  
**Water and Wastewater Impact Fee Study**  
**Eastside Service Area**

Water Service Unit Flows (Max Day)

688

gpd

Line No.	Eastside Service Area	Capital Cost	Capacity (MGD)	Total Service Units	Unit Cost of Capacity	Weighted Average	
<b>Water Supply and Treatment System</b>							
1	KBH Phase 2 (2.5 MG)	\$ 17,000,000	2.50	3,634	\$ 4,678		
2	Advanced Water Purification Facility (10 MG)	\$ 173,000,000	10.00	14,535	\$ 11,902	\$ 10,458	
	Subtotal	\$ 190,000,000		18,169			
<b>Debt Issued</b>							
3	KBH Phase 2 (2.5 MG)	\$ 6,050,000					
4	Advanced Water Purification Facility (10 MG)	\$ 61,520,000					
	Subtotal	\$ 67,570,000					
<b>NPV of Interest</b>							
5	KBH Phase 2 (2.5 MG)	\$ 2,564,902	2.50	3,634	\$ 706		
6	Advanced Water Purification Facility (10 MG)	\$ 26,081,448	10.00	14,535	\$ 1,794	\$ 1,577	
	Subtotal	\$ 28,646,350		18,169			
<b>Water Distribution System</b>							
<b>Reservoirs</b>							
7	Homestead II Tank (2.5 MG)	\$ 15,000,000	2.50	7,267	\$ 2,064		
8	John Hayes (2.5 MG)	\$ 15,000,000	2.50	7,267	\$ 2,064		
	Subtotal	\$ 30,000,000		14,535		\$ 2,064	
<b>Debt Issued</b>							
9	Homestead II Tank (2.5 MG)	\$ 5,335,000					
10	John Hayes (2.5 MG)	\$ 5,335,000					
	Subtotal	\$ 10,670,000					
<b>NPV of Interest</b>							
11	Homestead II Tank (2.5 MG)	\$ 2,261,777	2.50	7,267	\$ 311		
12	John Hayes (2.5 MG)	\$ 2,261,777	2.50	7,267	\$ 311		
	Subtotal	\$ 4,523,554		14,535		\$ 311	
<b>Distribution Lines</b>							
1	Eastside Planned Service Area	\$ 25,500,000	32.60	47,384	\$ 538		
2	Montana East Supply Line Area (E&W, N&S, Darrington)	\$ 21,000,000	35.00	50,872	\$ 413		
	Subtotal	\$ 46,500,000		98,256		\$ 473	
<b>Debt Issued</b>							
3	Eastside Planned Service Area	\$ 9,070,000					
4	Montana East Supply Line Area (E&W, N&S, Darrington)	\$ 7,470,000					
	Subtotal	\$ 16,540,000					
<b>NPV of Interest</b>							
5	Eastside Planned Service Area	\$ 3,845,233	32.60	47,384	\$ 81		
6	Montana East Supply Line Area (E&W, N&S, Darrington)	\$ 3,166,912	35.00	50,872	\$ 62		
	Subtotal	\$ 7,012,145		98,256		\$ 71	
7	<b>Maximum Water Impact Fee - Eastside Service Area (Capital and Financing)</b>					<b>\$ 14,954</b>	



ATTACHMENT E (continued)  
 Water and Wastewater Impact Fee Study  
 Eastside Service Area

Wastewater Service Unit Flows (Max Day) 341 gpd

Line No.	Eastside Service Area	Capital Cost	Capacity (MGD)	Total Service Units	Unit Cost of Capacity	Weighted Average
<b>Wastewater Treatment System</b>						
1	Bustamante WWTP (Expansion 39 to 51 MGD)	\$ 605,100,000	12.00	35,191	\$ 17,195	\$ 17,195
<b>Debt Issued</b>						
2	Bustamante WWTP (Expansion 39 to 51 MGD)	\$ 215,175,000				
<b>NPV of Interest</b>						
3	Bustamante WWTP (Expansion 39 to 51 MGD)	\$ 91,223,596	12.00	35,191	\$ 2,592	\$ 2,592
<b>Lines</b>						
1	Other Interceptors (Area 8 East)	12,700,000	3.52	10,323	\$ 1,230	
2	Loop 375 East Interceptor System	14,300,000	5.64	16,540	\$ 865	
	Subtotal	27,000,000		26,862		\$ 1,005
<b>Debt Issued</b>						
3	Other Interceptors (Area 8 East)	4,520,000				
4	Loop 375 East Interceptor System	9,155,000				
	Subtotal	13,675,000				
<b>NPV of Interest</b>						
5	Other Interceptors (Area 8 East)	1,916,257	3.52	10,323	\$ 186	
6	Loop 375 East Interceptor System	3,881,269	5.64	16,540	\$ 235	
	Subtotal	5,797,526		26,862		\$ 216
7	<b>Maximum Wastewater Impact Fee - Eastside Service Area (Capital and Financing)</b>					<b>\$ 21,008</b>
8	<b>Maximum Eastside Water and Wastewater Impact Fee</b>					<b>\$ 35,962</b>



## Attachment F Maximum Impact Fee Calculation

**ATTACHMENT F**  
**Water and Wastewater Impact Fee Study**  
**Maximum Impact Fee Per Service Unit**

Service Area and Category of Capital Improvement	Capital Improvement Costs	Amount Financed	Financing Costs (NPV of Interest)	Facility Service Units	Projected New Service Units through 2033	Portion of Capital Improvements and Financing	Maximum Impact Fee per Unit
<b>Northeast</b>							
Water							
Treatment	\$17,000,000	6,050,000	2,564,902	3,634	50,468	271,732,884	5,384
Reservoirs	30,000,000	10,675,000	4,525,674	29,070	50,468	59,939,995	1,188
Pumping	22,000,000	7,825,000	3,317,414	8,721	50,468	146,511,810	2,903
Distribution Lines	46,100,000	16,400,000	6,952,792	122,093	50,468	21,929,740	435
<b>Total Water</b>	<b>115,100,000</b>	<b>40,950,000</b>	<b>17,360,782</b>	<b>N/A</b>	<b>50,468</b>	<b>500,114,428</b>	<b>9,910</b>
Wastewater							
Collection Lines	42,300,000	8,239,171	11,482,705	40,000	50,468	67,857,639	1,345
<b>Total Wastewater</b>	<b>42,300,000</b>	<b>8,239,171</b>	<b>11,482,705</b>	<b>N/A</b>	<b>50,468</b>	<b>67,857,639</b>	<b>1,345</b>
<b>Total Northeast Area</b>	<b>\$157,400,000</b>	<b>\$49,189,171</b>	<b>\$28,843,487</b>	<b>N/A</b>	<b>50,468</b>	<b>\$567,972,068</b>	<b>\$11,254</b>
<b>Westside</b>							
Water							
Reservoirs	24,000,000	8,545,000	3,622,659	23,256	22,099	26,248,625	1,188
Pumping	15,500,000	5,520,000	2,340,208	13,081	22,099	30,138,280	1,364
Distribution Lines	100,600,000	35,795,000	15,175,316	197,965	22,099	12,924,089	585
<b>Total Water</b>	<b>140,100,000</b>	<b>49,860,000</b>	<b>21,138,183</b>	<b>N/A</b>	<b>22,099</b>	<b>69,310,994</b>	<b>3,136</b>
Wastewater							
Collection Lines	2,500,000	1,605,000	680,441	5,982	22,099	11,748,547	532
Pumping	50,300,000	32,200,000	13,651,213	22,463	22,099	62,913,960	2,801
<b>Total Wastewater</b>	<b>52,800,000</b>	<b>33,805,000</b>	<b>14,331,654</b>	<b>N/A</b>	<b>22,099</b>	<b>74,662,507</b>	<b>3,332</b>
<b>Total Westside Area</b>	<b>\$192,900,000</b>	<b>\$83,665,000</b>	<b>\$35,469,837</b>	<b>N/A</b>	<b>22,099</b>	<b>\$143,973,500</b>	<b>\$6,469</b>
<b>Eastside</b>							
Water							
Treatment	\$190,000,000	\$67,570,000	\$28,646,350	18,169	27,839	335,022,742	12,034
Reservoirs	30,000,000	10,670,000	4,523,554	14,535	27,839	66,123,764	2,375
Distribution Lines	46,500,000	16,540,000	7,012,145	98,256	27,839	15,161,694	545
<b>Total Water</b>	<b>266,500,000</b>	<b>94,780,000</b>	<b>40,182,049</b>	<b>N/A</b>	<b>27,839</b>	<b>416,308,200</b>	<b>14,954</b>
Wastewater							
Treatment	605,100,000	215,175,000	91,223,596	35,191	27,839	550,855,736	19,787
Collection Lines	27,000,000	13,675,000	5,797,526	26,862	27,839	33,990,192	1,221
<b>Total Wastewater</b>	<b>632,100,000</b>	<b>228,850,000</b>	<b>97,021,122</b>	<b>N/A</b>	<b>27,839</b>	<b>584,845,929</b>	<b>21,008</b>
<b>Total Eastside Area</b>	<b>\$898,600,000</b>	<b>\$323,630,000</b>	<b>\$137,203,172</b>	<b>N/A</b>	<b>27,839</b>	<b>\$1,001,154,129</b>	<b>\$35,962</b>
<b>Systemwide</b>							
Water	\$521,700,000	\$185,590,000	\$78,681,014	NA	100,406	\$985,733,622	\$9,875
Wastewater	727,200,000	270,894,171	122,835,482	NA	100,406	727,366,075	\$7,244
<b>Systemwide Area</b>	<b>\$1,248,900,000</b>	<b>\$456,484,171</b>	<b>\$201,516,496</b>	<b>NA</b>	<b>100,406</b>	<b>\$1,713,099,697</b>	<b>\$17,119</b>

## Attachment G Impact Fee Credit Calculation

**ATTACHMENT G**  
**Water and Wastewater Impact Fee Study**  
**Impact Fee Credit Calculation**

**Systemwide Water Credit Calculation**

Line No.	Total (All Years)	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	
1	Principal Payments	\$185,590,000	\$5,612,722	\$5,893,358	\$6,188,026	\$6,497,427	\$6,822,298	\$7,163,413	\$7,521,584	\$7,897,663	\$8,292,546	\$8,707,174
2	Annual Interest on Future Debt		9,279,500	8,998,864	8,704,196	8,394,795	8,069,923	7,728,808	7,370,638	6,994,559	6,599,675	6,185,048
3	Total Debt Service		\$14,892,222	\$14,892,222	\$14,892,222	\$14,892,222	\$14,892,222	\$14,892,222	\$14,892,222	\$14,892,222	\$14,892,222	\$14,892,222
<b>Present Value</b>												
4	Principal on Future Debt		\$5,345,449	\$5,345,449	\$5,345,449	\$5,345,449	\$5,345,449	\$5,345,449	\$5,345,449	\$5,345,449	\$5,345,449	\$5,345,449
2	Interest Payments (present value)	78,681,014	8,837,619	8,162,235	7,519,012	6,906,418	6,322,996	5,767,356	5,238,175	4,734,193	4,254,210	3,797,083
3	Principal and Present Value of Interest	\$264,271,014	\$14,450,341	\$14,055,593	\$13,707,038	\$13,403,845	\$13,145,295	\$12,930,769	\$12,759,759	\$12,631,856	\$12,546,756	\$12,504,257
4	Beginning Year Service Units		252,766	262,807	272,847	282,888	292,928	302,969	313,010	323,050	333,091	343,131
5	Incremental Service Units		10,041	10,041	10,041	10,041	10,041	10,041	10,041	10,041	10,041	10,041
6	Total Service Units		262,807	272,847	282,888	292,928	302,969	313,010	323,050	333,091	343,131	353,172
7	Debt Service Credit per Unit	\$799	\$55	\$52	\$48	\$46	\$43	\$41	\$39	\$38	\$37	\$35

**Notes:**

1. Present value calculations apply a 5 percent discount rate.

**ATTACHMENT G**  
**Water and Wastewater Impact Fee Study**  
**Impact Fee Credit Calculation**

**Systemwide Water Credit Calculation**

Line No.	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	
1	Principal Payments	\$9,142,532	\$9,599,659	\$10,079,642	\$10,583,624	\$11,112,805	\$11,668,445	\$12,251,868	\$12,864,461	\$13,507,684	\$14,183,068
2	Annual Interest on Future Debt	5,749,689	5,292,563	4,812,580	4,308,598	3,779,417	3,223,776	2,640,354	2,027,761	1,384,538	709,153
3	Total Debt Service	\$14,892,222	\$14,892,222	\$14,892,222	\$14,892,222	\$14,892,222	\$14,892,222	\$14,892,222	\$14,892,222	\$14,892,222	\$14,892,222
<b>Present Value</b>											
4	Principal on Future Debt	\$5,345,449	\$5,345,449	\$5,345,449	\$5,345,449	\$5,345,449	\$5,345,449	\$5,345,449	\$5,345,449	\$5,345,449	\$5,345,449
2	Interest Payments (present value)	3,361,724	2,947,097	2,552,214	2,176,135	1,817,964	1,476,849	1,151,978	842,576	547,909	267,272
3	Principal and Present Value of Interest	\$12,504,257	\$12,546,756	\$12,631,856	\$12,759,759	\$12,930,769	\$13,145,295	\$13,403,845	\$13,707,038	\$14,055,593	\$14,450,341
4	Beginning Year Service Units	353,172	363,213	363,213	363,213	363,213	363,213	363,213	363,213	363,213	363,213
5	Incremental Service Units	10,041	0	0	0	0	0	0	0	0	0
6	Total Service Units	363,213	363,213	363,213	363,213	363,213	363,213	363,213	363,213	363,213	363,213
7	Debt Service Credit per Unit	\$34	\$35	\$35	\$35	\$36	\$36	\$37	\$38	\$39	\$40

**Notes:**

1. Present value calculations apply a 5 percent discount rate.

**ATTACHMENT G (continued)**  
**Water and Wastewater Impact Fee Study**  
**Impact Fee Credit Calculation**

**Systemwide Wastewater Credit Calculation**

Line No.		Total (All Years)	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
1	Principal Payments	\$289,740,000	\$8,762,487	\$9,200,612	\$9,660,642	\$10,143,674	\$10,650,858	\$11,183,401	\$11,742,571	\$12,329,699	\$12,946,184	\$13,593,494
2	Interest Payments (present value)	\$122,835,482	13,797,143	12,742,744	11,738,555	10,782,185	9,871,356	9,003,899	8,177,751	7,390,942	6,641,601	5,927,942
3	Principal and Present Value of Interest	\$412,575,482	\$22,559,630	\$21,943,356	\$21,399,197	\$20,925,859	\$20,522,214	\$20,187,300	\$19,920,321	\$19,720,642	\$19,587,785	\$19,521,436
4	Beginning Year Service Units		206,116	216,157	226,197	236,238	246,278	256,319	266,360	276,400	286,441	296,481
5	Incremental Service Units		10,041	10,041	10,041	10,041	10,041	10,041	10,041	10,041	10,041	10,041
6	Total Service Units		216,157	226,197	236,238	246,278	256,319	266,360	276,400	286,441	296,481	306,522
7	Debt Service Credit per Unit	\$1,455	\$104	\$97	\$91	\$85	\$80	\$76	\$72	\$69	\$66	\$64

Notes:  
1. Present value calculations apply a 5 percent discount rate.

**ATTACHMENT G (continued)**  
**Water and Wastewater Impact Fee Study**  
**Impact Fee Credit Calculation**

**Systemwide Wastewater Credit Calculation**

Line No.		2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
1	Principal Payments	\$14,273,168	\$14,986,827	\$15,736,168	\$16,522,976	\$17,349,125	\$18,216,582	\$19,127,411	\$20,083,781	\$21,087,970	\$22,142,369
2	Interest Payments (present value)	5,248,268	4,600,959	3,984,474	3,397,345	2,838,175	2,305,632	1,798,448	1,315,416	855,386	417,261
3	Principal and Present Value of Interest	\$19,521,436	\$19,587,785	\$19,720,642	\$19,920,321	\$20,187,300	\$20,522,214	\$20,925,859	\$21,399,197	\$21,943,356	\$22,559,630
4	Beginning Year Service Units	306,522	316,563	316,563	316,563	316,563	316,563	316,563	316,563	316,563	316,563
5	Incremental Service Units	10,041	0	0	0	0	0	0	0	0	0
6	Total Service Units	316,563	316,563	316,563	316,563	316,563	316,563	316,563	316,563	316,563	316,563
7	Debt Service Credit per Unit	\$62	\$62	\$62	\$63	\$64	\$65	\$66	\$68	\$69	\$71

Notes:  
1. Present value calculations apply a 5 percent discount rate.

## Attachment H Impact fee Assessment Schedules

**ATTACHMENT H**  
**Water and Wastewater Impact Fee Study**  
**Impact Fee Assessment Schedules (Net Fee after Credit)**

**Northeast - Net Impact Fee after Max Credit**

Meter Size	Meter Capacity Ratio	Water	Wastewater	Total
Less than 1-inch	1.00	\$5,012	\$672	\$5,684
1-inch	1.67	8,370	1,122	9,492
1½-inch	3.33	16,690	2,238	18,928
2-inch	5.33	26,714	3,582	30,296
3-inch	10.00	50,120	6,720	56,840
4-inch	16.67	83,550	11,202	94,752
6-inch	33.33	167,050	22,398	189,448
8-inch	53.33	\$267,290	\$35,838	\$303,128

**Westside - Net Impact Fee after Max Credit**

Meter Size	Meter Capacity Ratio	Water	Wastewater	Total
Less than 1-inch	1.00	\$1,568	\$1,689	\$3,257
1-inch	1.67	2,619	2,821	5,439
1½-inch	3.33	5,221	5,624	10,846
2-inch	5.33	8,357	9,002	17,360
3-inch	10.00	15,680	16,890	32,570
4-inch	16.67	26,139	28,156	54,294
6-inch	33.33	52,261	56,294	108,556
8-inch	53.33	\$83,621	\$90,074	\$173,696

**Eastside - Net Impact Fee after Max Credit**

Meter Size	Meter Capacity Ratio	Water	Wastewater	Total
Less than 1-inch	1.00	\$7,477	\$10,504	\$17,981
1-inch	1.67	12,487	17,542	30,028
1½-inch	3.33	24,898	34,978	59,877
2-inch	5.33	39,852	55,986	95,839
3-inch	10.00	74,770	105,040	179,810
4-inch	16.67	124,642	175,102	299,743
6-inch	33.33	249,208	350,098	599,307
8-inch	53.33	\$398,748	\$560,178	\$958,927

**ATTACHMENT H**  
**Water and Wastewater Impact Fee Study**  
**Impact Fee Assessment Schedules (Net Fee after Credit)**

**Northeast - Net Impact Fee after Revenue Credit**

Meter Size	Meter Capacity Ratio	Water	Wastewater	Total
Less than 1-inch	1.00	\$9,213	\$1,074	\$10,287
1-inch	1.67	15,386	1,794	17,179
1½-inch	3.33	30,679	3,576	34,256
2-inch	5.33	49,105	5,724	54,830
3-inch	10.00	92,130	10,740	102,870
4-inch	16.67	153,581	17,904	171,484
6-inch	33.33	307,069	35,796	342,866
8-inch	53.33	\$491,329	\$57,276	\$548,606

**Westside - Net Impact Fee after Revenue Credit**

Meter Size	Meter Capacity Ratio	Water	Wastewater	Total
Less than 1-inch	1.00	\$2,883	\$2,700	\$5,583
1-inch	1.67	4,815	4,509	9,324
1½-inch	3.33	9,600	8,991	18,591
2-inch	5.33	15,366	14,391	29,757
3-inch	10.00	28,830	27,000	55,830
4-inch	16.67	48,060	45,009	93,069
6-inch	33.33	96,090	89,991	186,081
8-inch	53.33	\$153,750	\$143,991	\$297,741

**Eastside - Net Impact Fee after Revenue Credit**

Meter Size	Meter Capacity Ratio	Water	Wastewater	Total
Less than 1-inch	1.00	\$13,745	\$16,788	\$30,533
1-inch	1.67	22,954	28,036	50,990
1½-inch	3.33	45,771	55,904	101,675
2-inch	5.33	73,261	89,480	162,741
3-inch	10.00	137,450	167,880	305,330
4-inch	16.67	229,129	279,856	508,985
6-inch	33.33	458,121	559,544	1,017,665
8-inch	53.33	\$733,021	\$895,304	\$1,628,325