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August 16, 2024

Melinda Moritz
Public Works Director
City of Leon Valley
6400 El Verde Rd.
Leon Valley, TX 78238

RE: Leon Valley Impact Fee Evaluation

Dear Ms. Moritz,

Ardurra had previously provided an assessment of the City of Leon Valley's impact fees and gave recommendation for new impact fees for the city to adopt. The city adopted the impact fees as recommended in June of 2024. Former and current adopted impact fees are presented below:

Impact Fees for a Standard Residential Meter			
	Prior to 2024	**Adopted By Council 6/6/2024**	**Proposed In This Memo**
Water Supply Impact Fee	$1,242	$2,650	$4,997
Development Impact Fee	$450	$962	$962
Total Impact Fee	**$1,692**	**$3,612**	**$5,959**

In July 2024, the City provided new information regarding the cost of water acquisition. The memorandum is revised with the new acquisition costs accounted for below with edits highlighted. New calculations for suggested impact fees are presented at the end.

Methods:

An impact fee is a one-time charge imposed on new development to help recover capital costs associated with providing the infrastructure and other required improvements to provide service to that new development. The maximum impact fee per service unit is calculated by dividing the cost of the growth-related Capital Improvements Projects (CIP) the city anticipates undertaking in the evaluated time period by the projected number of total service units the city will add in that time period.

Ardurra set the evaluation time period at ten years. Capital Improvement Projects evaluated included replacing the Marshall Elevated Storage Tank and costs associated with expanding the city's water rights. To estimate the number of total service units to be added in ten years, Ardurra performed a generalized population projection utilizing census data and meter counts provided by the City.

The Texas Local Government Code Chapter 395 requires utilities to calculate a credit for growth related Capital Improvements Projects (CIP) to be subtracted from the impact fee. The credit is based on the amount of projected future rate revenues or taxes expected to be generated by the new development and used to pay for capital improvements identified in the CIP. This credit provides an adjustment to benefit fee payers who will pay for CIP in both the impact fee and their future rates and taxes. Utilities can calculate this credit and apply it to the calculated impact fee or alternatively, can avoid having to calculate the credit by opting to use the statutory credit equal to 50% of the calculated impact fee. Ardurra has opted to estimate impact fees here by statutory credit of 50%.

Population Projections:

- In 2010, according to the US Census Bureau, Leon Valley had a population of 10,151. In 2020, according to the US Census Bureau, Leon Valley had grown to a population of 11,542, a growth rate of 1.29% annually. Ardurra has assumed this growth rate will continue through the ten year evaluation period. With that assumption in mind, the population in the current year of 2023 is estimated to be 11,842.
- Leon Valley provided the current meter count for the water system as 2,576 meters. In order to estimate the number of meters to be added in the evaluation period, Ardurra will use a ratio of meters per resident. In 2023, this ratio is 4.6 residents per meter. Ardurra will use the assumption that this ratio holds for the evaluation period.
- In 2033, the population is estimated to be 13,368. With an assumed ratio of 4.6 residents per meter, it is estimated that the meter count in 2033 will be 2,965 meters. Based on this assumption, Leon Valley will add an additional 390 meters to their water system over the evaluation period.

Growth Related Capital Improvement Project:

Water Sourcing:

- The City of Leon Valley currently owns 1,758.38 acre-feet of Edwards Aquifer water rights. The city rarely gets access to its full water rights due to withdrawal reductions required by Edwards Aquifer water restriction stages.
- In 2018, Leon Valley reported having 2,440 meters and using 1,086 acre-feet of water. This is the highest per-capita water usage in recent history, 0.45 acre-feet per meter over that year. Ardurra has opted to use this per-capita water usage as basis for projected water demand in the evaluation period.
    - This projects the full system ultimate water usage in 2033 as:

$$2{,}965\ meters * 0.45 \frac{acre - feet}{meter} = 1{,}335\ acre - feet\ of\ water$$

- Edwards Aquifer water withdrawal reduction stages are given as percentage reductions of total owned water rights. This means when the city is at a critical period stage 3 reduction level, they can only utilize up to 65% of their owned water rights. The City of Leon Valley is currently in a stage 3 reduction period. If one were to assume stage 3 reduction level in 2033, to have enough water rights to meet water demand the city would need to own:

$$\frac{1{,}335\ acre - feet\ of\ water}{65\%} = 2{,}054\ acre - feet$$

- The city estimates cost per acre-foot of water rights acquisition at $11,500 per acre-foot. Using this as a baseline cost, which includes closing costs, and extrapolating this cost over the evaluation period with inflation, it is estimated it will cost the city approximately $3,897,295 to acquire the recommended water rights (see Attachment A for estimate).

Capital Improvements Project:

- The City of Leon Valley will need to replace the 100,000 gallon Marshall Elevated Storage Tank in the next ten years with a larger tank.
    - Removing and replacing the tank with a 150,000 gallon elevated storage tank is estimated to cost $750,000 (see Attachment B for estimate).

Impact Fee Calculation with Credit:

- The impact fee that can be levied per service unit is calculated by dividing the growth-related CIP costs by the projected number of total service units projected. Then the maximum impact fee amount is calculated by applying a 50% credit to account for projected future rate revenues or taxes expected to be generated by the new development and used to pay for capital improvements identified in the CIP. The max impact fee is calculated in the table below:

Description	CIP	Calculated Maximum Impact Fee	Credited Impact Fee (50%)
Water Supply	$3,897,295	$9,993	$4,997
System Development	$750,000	$1,923	$962

- These proposed impact fees and Leon Valley's existing impact fees (adopted in June 2024) were referenced against the nearest water system, San Antonio Water System (SAWS), current impact fees, adopted in 2020. This comparison is shown in the table below. It should be noted that Leon Valley's water system was found to have adequately sized mains for projected growth and there is no need for flow expansion improvement projects.

Description	SAWS Impact Fee	Adopted June 2024 Leon Valley Impact Fee	Proposed Leon Valley Impact Fee
Flow Impact Fee	$1,188	$0	$0
Water Supply Impact Fee	$2,706	$2,650	$4,997
System Development Impact Fee	$855	$962	$962
Total Impact Fee	**$4,749**	**$3,612**	**$5,959**

Conclusions and Recommendations:

It is recommended that the City of Leon Valley update their impact fees. The existing impact fees are too low to address the water system's growth demands in the coming years. The suggested impact fee per water meter size is shown below. To estimate recommended impact fees for larger than standard residential size water meters, multiplier of fee increase from the previous adopted fees in 2008 were used:

Size of Meter	Water Supply Impact Fee Prior to 2024	Development Impact Fee Prior to 2024	Current Water Supply Impact Fee	Current Development Impact Fee	Proposed Water Supply Impact Fee	Proposed Development Impact Fee
5/8" & 3/4"	$1,242	$450	$1,242	$450	$4,997	$962
1"	$2,074	$750	$2,074	$750	$8,344	$1,603
1 1/2"	$4,136	$1,500	$4,136	$1,500	$16,639	$3,207
2"	$13,252	$4,800	$13,252	$4,800	$53,312	$10,261
3"	$20,704	$7,500	$20,704	$7,500	$83,291	$16,033
4"	$27,324	$9,900	$27,324	$9,900	$109,923	$21,164
6"	$33,943	$12,300	$33,943	$12,300	$136,551	$26,295
8"	$41,396	$25,000	$41,396	$25,000	$166,534	$53,444
10"	$66,199	$24,000	$66,199	$24,000	$166,533	$51,307

We appreciate the opportunity to assist you in this matter. If you have any questions, please contact us at (210) 822-2232 or e-mail us at jhoelscher@ardurra.com.

Sincerely,

TBPE Firm No. F-10053

James Hoelscher, PE
Project Engineer

ATTACHMENT A

WATER ACQUISITION COSTS ESTIMATE

Description	**Units**	**Qty**
Water Rights Acquired Current	Acre Feet	1758.38
Water Rights Desired	Acre Feet	2054
$/Acre Foot	$	$ 11,500.00
To Acquire	Acre Feet	295.62
Acquire per year	Acre Feet	29.562
Inflation	%	3.0%
2024 Cost to Purchase Water Rights	$	$ 339,963.00
2025 Cost to Purchase Water Rights	$	$ 350,161.89
2026 Cost to Purchase Water Rights	$	$ 360,666.75
2027 Cost to Purchase Water Rights	$	$ 371,486.75
2028 Cost to Purchase Water Rights	$	$ 382,631.35
2029 Cost to Purchase Water Rights	$	$ 394,110.29
2030 Cost to Purchase Water Rights	$	$ 405,933.60
2031 Cost to Purchase Water Rights	$	$ 418,111.61
2032 Cost to Purchase Water Rights	$	$ 430,654.96
2033 Cost to Purchase Water Rights	$	$ 443,574.61
Total Cost to Acquire	**$**	**$ 3,897,294.80**

ATTACHMENT B

MARSHALL ELEVATED STORAGE TANK DEMOLITION AND REPLACEMENT PROJECT COST ESTIMATE

Item #	Decription	Unit	Unit Cost	Qty	$
1	Demo of Existing 100,000 Gallon Tank	LS	$ 60,000.00	1	$ 60,000.00
2	Construction of 150,000 Gallon Tank	LS	$ 540,000.00	1	$ 540,000.00
			Contingency	*25%*	*$ 150,000.00*
			TOTAL		**$ 750,000.00**