

# Lockhart Water/Wastewater Impact Fee Update

May 2<sup>nd</sup>, 2023

## Historical Water Demands

- **Average Daily Flow from Jan 2018 – Dec 2022**
  - 1.47 MGD
- **Maximum Daily Flow from Jan 2018 – Dec 2022**
  - 2.55 MGD
- **Average Demand per Capita per Day**
  - 96 gal/day/capita
- **Average Monthly Peak Demand per Capita**
  - 155 gal/day/capita

# Projected Water Demands

**Table 3 – Projected Water Usage**

Year	Population	Water Usage Average <sup>(1)</sup> (MGD)	Water Usage Peak <sup>(2)</sup> (MGD)
2022	15,210	1.47	2.36
2032	23,832	2.30	3.69

<sup>(1)</sup> Based upon average per capita water usage of 96 gal/day

<sup>(2)</sup> Based upon peak per capita water usage of 155 gal/day

## Historical Wastewater Demands

- **Average Daily Flow from Jan 2018 – Dec 2022**
  - 1.04 MGD
- **Maximum Daily Flow from Jan 2018 – Dec 2022**
  - 4.48 MGD
- **Average Flow per Capita per Day**
  - 71 gal/day/capita
- **Average Monthly Peak Demand per Capita**
  - 259 gal/day/capita

# Projected Wastewater Demands

**Table 6 – Projected Future Wastewater Flows**

Year	Population	Wastewater Usage Average <sup>(1)</sup> (MGD)	Wastewater Usage Peak <sup>(2)</sup> (MGD)
2022	15,210	1.08	3.94
2032	23,832	1.69	6.17

<sup>(1)</sup> Based upon average per capita water usage of 71 gal/day

<sup>(2)</sup> Based upon peak per capita water usage of 259 gal/day

# Current Meter Counts and Conversions

**Table 10 – LUE Equivalencies for Various Types and Sizes of Water Meters**

Meter Type	Meter Size	Continuous Duty Maximum Rate (gpm)	Ratio To 3/4" Meter
Simple	5/8" x 3/4"	10	0.667
Simple	3/4"	15	1.000
Simple	1"	25	1.667
Simple	1-1/2"	50	3.333
Simple	2"	80	5.333
Compound	2"	80	5.333
Turbine	2"	100	6.667
Compound	3"	175	11.667
Turbine	3"	220	14.667
Compound	4"	300	20.000
Turbine	4"	420	28.000
Compound	6"	675	45.000
Turbine	6"	865	57.667

SOURCE: AWWA Standards C700, C701, C702, C703.

**Table 11 – Current Meter Count and Estimation of LUE**

Meter Size	Number Of Meters <sup>(a)</sup>	LUEs Per Meter <sup>(b)</sup>	Number Of LUEs <sup>(c)</sup>
3/4"	4,950	1	4,950
1"	157	1.667	262
1-1/2"	20	3.333	67
2"	131	5.333	699
3"	26	11.667	303
4"	10	20.000	200
<b>TOTAL</b>	<b>5,294</b>		<b>6,481</b>
Population			15,210
Population/LUE			2.35

(a) SOURCE: City of Lockhart

(b) See Table 10

(c) January 2022 estimate

# Estimated Water Service Demand

Facility Type	Volume	
	2022	2032
<b>LUE'S (a)</b>	<b>6,481</b>	<b>10,154</b>
<b>WELLS MGD:</b>		
Estimated Demand (b)	4.61	7.23
Estimated Demand minus Carrizo Supply (g)	1.94	4.56
Existing Capacity	4.60	4.60
<i>Excess/(Deficiency)</i>	2.66	0.04
<b>RAW WATER TRANSMISSION:</b>		
Estimated Demand (c)	4.61	7.23
Estimated Demand minus Carrizo Supply (g)	1.94	4.56
Existing Capacity	5.20	5.20
<i>Excess/(Deficiency)</i>	3.26	0.64
<b>WATER TREATMENT PEAK MGD:</b>		
Estimated Demand (c)	4.61	7.23
Estimated Demand minus Carrizo Supply (g)	1.94	4.56
Existing Capacity	5.70	5.70
<i>Excess/(Deficiency)</i>	3.76	1.14
<b>BOOSTER PUMP MGD:</b>		
Estimated Demand (d)	4.61	7.23
Existing Capacity (f)	6.92	6.92
<i>Excess/(Deficiency)</i>	2.31	(0.31)
<b>ELEVATED WATER STORAGE MGD:</b>		
Estimated Demand (e)	1.07	1.68
Existing Capacity	1.55	1.55
<i>Excess/(Deficiency)</i>	0.48	(0.13)

# Estimated Wastewater Service Demand

**Table 13 – Estimated Wastewater Service Demand by Facility Type**

Facility Type	Volume	
	2022	2032
<b>LUE'S (a)</b>	<b>6,481</b>	<b>10,154</b>
<b>WASTEWATER TREATMENT PEAK MGD:</b>		
Estimated Demand (b)	1.08	1.69
Existing Capacity	2.60	2.60
<i>Excess/(Deficiency)</i>	1.52	0.91

(a) Wastewater LUE's same as water.

(b) Capacity demand based on 167 gallons/LUE/day



# Cost of Existing Water Facilities

WATER			
<b>SUPPLY</b>			
Well	3B	\$169,148	
	4A	\$118,917	
	5A	\$96,025	
	9A	\$623,902	
	10	\$623,902	
	11	\$412,793	
	12	\$402,258	
	<b>TOTAL</b>		<b>\$2,446,945</b>
<b>RAW WATER TRANSMISSION</b>			
Raw Water Pump Station		\$296,495	
Well 9 Transmission Main		\$300,415	
Plum Creek Raw Water Main		\$349,246	
Ethridge Raw Water Main		\$394,413	
Well 12 Transmission Main		\$146,183	
18" Raw Water Main		\$49,353	
	<b>TOTAL</b>		<b>\$1,536,105</b>

# Cost of Existing Water Facilities

WATER			
<b>TREATMENT</b>			
Water Plant			\$2,310,484
<b>BOOSTER PUMPS</b>			
High Service Pump Station Expansion			\$989,000
<b>ELEVATED STORAGE</b>			
City Line Rd Pump Station		\$1,025,000	
0.5 MG Elevated Storage		\$1,716,000	
	<b>TOTAL</b>		<b>\$2,741,000</b>
<b>TRANSMISSION MAINS</b>			
18" MLK Water Main		\$460,601	
18" SH 130 Main Phase 1		\$217,666	
18" SH 130 Main Phase 2		\$606,143	
Bufkin Water Main		\$294,685	
Carrizo Water Supply		\$3,075,277	
	<b>TOTAL</b>		<b>\$4,654,372</b>
	<b>TOTAL WATER</b>		<b>\$14,677,906</b>

# Cost of Existing Wastewater Facilities

WASTEWATER			
<b>TREATMENT</b>			\$3,653,000
<b>PUMPING</b>			
Airport Lift Station			\$658,482
<b>COLLECTION LINES</b>			
FM 20 Trunk Main		\$1,827,000	
Borchert Lane 12" Sewer		\$133,349	
	<b>TOTAL</b>		<b>\$1,960,349</b>
<b>TOTAL WASTEWATER</b>			<b>\$6,271,831</b>

# Cost of New Water Facilities

Name	Quantity	Description	Unit Price <sup>(1)</sup>	Cost
W-1	15,000 Feet	12" Pipe from Hidden Path Rd. to 2720	\$175	\$2,625,000
W-2	7,000 Feet	12" Pipe along the West side of 130	\$175	\$1,225,000
W-3	4,700 Feet	12" Pipe along Silent Valley Rd. from SH 130 to Stueve Ln.	\$175	\$822,500
W-4	3,000 Feet	12" Pipe from Silent Valley Rd to N. Mockingbird Ln.	\$175	\$525,000
W-5	1,200 Feet	12" Pipe along W. San Antonio St. from S. Mockingbird Ln. to Borchert Loop	\$175	\$210,000
W-6	2,000 Feet	12" Pipe along W. San Antonio St. from Borchert Loop to Windsor Blvd.	\$175	\$350,000
W-7	1,700 Feet	12" Pipe from W. San Antonio St. to Borchert Loop on the E. side of SH 130	\$175	\$297,500
W-8	2,200 Feet	12" Pipe from W. San Antonio St. to Borchert Dr. on the W. side of SH 130	\$175	\$385,000
W-9	3,000 Feet	12" Pipe from Borchert Dr. to Maple St. on the W. side of SH 130	\$175	\$525,000
W-10	4,000 Feet	12" Pipe S. of Maple St. on the W. side of SH 130	\$175	\$700,000
W-11	3,500 Feet	12" Pipe from City Line Rd. to State Park Rd.	\$175	\$612,500
W-12	2,200 Feet	12" Pipe along State Park Rd.	\$175	\$385,000
W-13	7,000 Feet	12" Pipe from State Park Rd. to W. Martin Luther Kng Jr Industrial Blvd.	\$175	\$1,225,000
W-14	1,600 Feet	12" Pipe along Cunningham	\$175	\$280,000
W-15	1,400 Feet	12" Pipe S. of Cunningham	\$175	\$245,000

# Cost of New Water Facilities

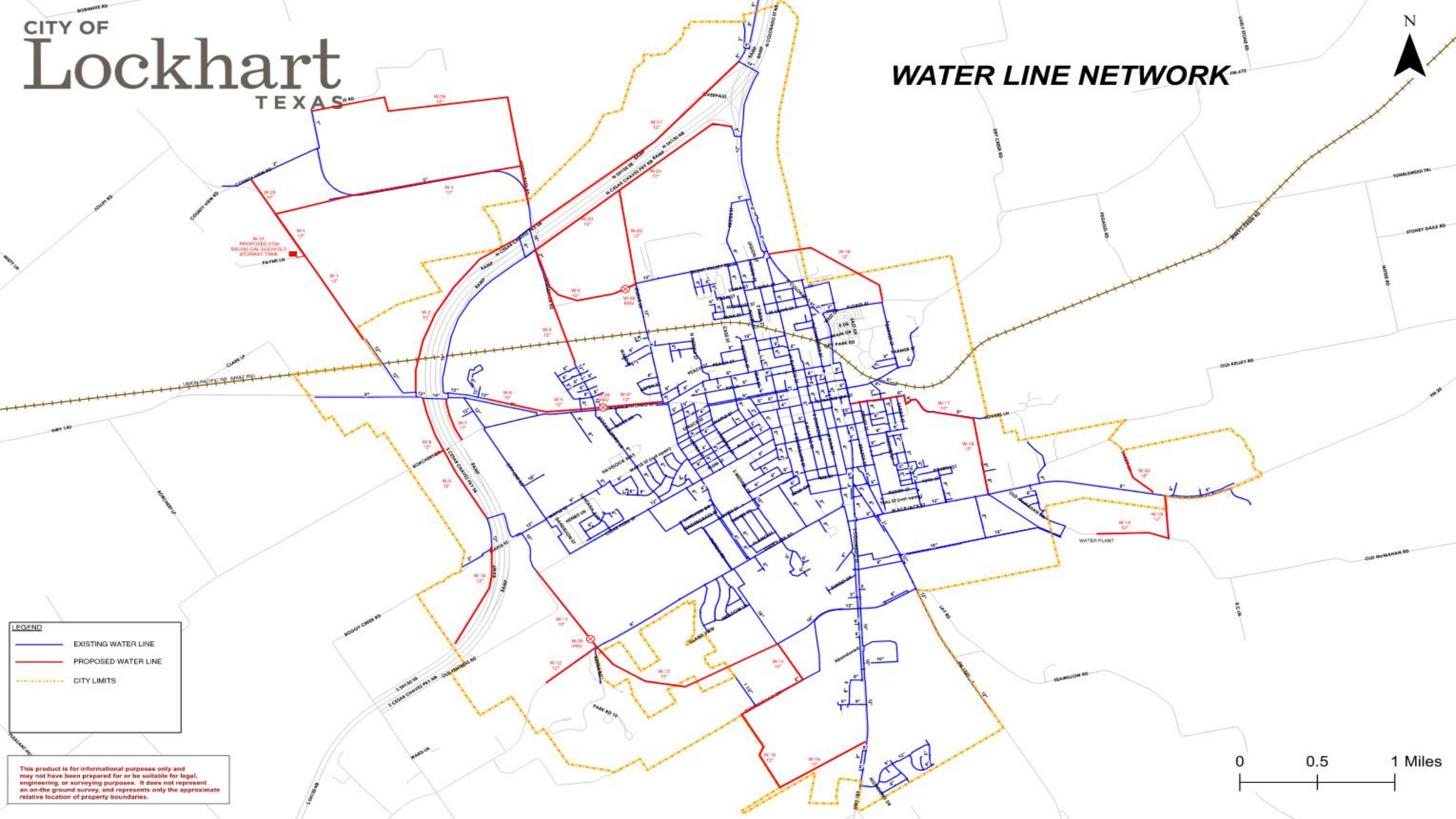
Name	Quantity	Description	Unit Price <sup>(1)</sup>	Cost
W-16	3,400 Feet	12" Pipe S. of the Lockhart Municipal Airport	\$175	\$595,000
W-17	4,800 Feet	12" Pipe along Lovers Ln. to Brazos St.	\$175	\$840,000
W-18	3,000 Feet	12" Pipe from Lovers Ln. to Blackjack St.	\$175	\$525,000
W-19	4,200 Feet	12" Pipe from Water Plant to Blackjack St.	\$175	\$735,000
W-20	2,000 Feet	12" Pipe along Shady Ln.	\$175	\$350,000
W-21	3,000 Feet	12" Pipe from Mockinbird Ln to Stueve Ln	\$175	\$525,000
W-22	3,500 Feet	12" Pipe from Stueve Ln to SH 130	\$175	\$612,500
W-23	3,700 Feet	12" Pipe along SH 130 to Horshoe Rd	\$175	\$647,500
W-24	4,700 Feet	12" Pipe along SH 130 to N Colorado St.	\$175	\$822,500
W-25	2,000 Feet	12" Pipe from County View Rd to Payne Ln	\$175	\$350,000
W-26	10,000 Feet	12" Pipe along Hidden Path Rd connecting to Cypress Rd	\$175	\$1,750,000
W-27	10,000 Feet	12" Pipe on N. side of SH 130 E of Hidden Path Rd.	\$175	\$1,750,000
W-28	1 Each	Pressure Reducing Valve	\$35,000	\$35,000
W-29	1 Each	Pressure Reducing Valve	\$35,000	\$35,000
W-30	1 Each	Pressure Reducing Valve	\$35,000	\$35,000
W-31	1 Each	Elevated Storage Tank	\$1,750,000	\$1,750,000
		<b>TOTAL</b>		<b>\$21,770,000</b>

# Cost of New Wastewater Facilities

Name	Quantity	Description	Unit Price <sup>(1)</sup>	Cost
S-1	12,000 Feet	12" Pipe extension past SH 130 to Hidden Path Rd	\$200	\$2,400,000
S-2	3,300 Feet	12" Pipe between SH 130 and Windridge	\$200	\$660,000
S-3	1,500 Feet	12" W of SH 130 to San Antonio St.	\$200	\$300,000
S-4	7,000 Feet	12" Pipe along County Ln.	\$200	\$1,400,000
S-5	9,300 Feet	15" Pipe along SH 130 and San Antonio St.	\$25	\$232,500
S-6	5,000 Feet	18" Pipe under SH 130 S of Maple St.	\$250	\$1,250,000
S-7	3,500 Feet	18" Pipe from State Park Rd. to Old Fentress Rd.	\$250	\$875,000
S-8	1,700 Feet	12" Pipe S of Old Fentress Rd.	\$200	\$340,000
S-9	1,500 Feet	12" Pipe along State Park Rd.	\$200	\$300,000
S-10	1,700 Feet	12" Pipe N of State Park Rd.	\$200	\$340,000
S-11	5,500 Feet	12" Pipe along Cunningham Rd	\$200	\$1,100,000
S-12	4,300 Feet	18" Pipe along Clear Fork Plum Creek	\$250	\$1,075,000
S-13	1,500 Feet	12" Pipe E of 183	\$200	\$300,000
S-14	3,200 Feet	18" Pipe along railroad W of Stueve Ln.	\$250	\$800,000
S-15	2,200 Feet	18" Pipe along Stueve Ln.	\$250	\$550,000
S-16	7,000 Feet	24" Pipe along Tank St.	\$300	\$2,100,000
S-17	2,500 Feet	30" Pipe along railroad	\$350	\$875,000
S-18	12,000 Feet	12" Pipe under SH 130 to N Colorado St.	\$200	\$2,400,000

# Cost of New Wastewater Facilities

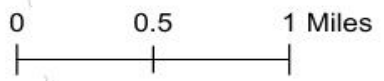
Name	Quantity	Description	Unit Price <sup>(1)</sup>	Cost
S-19	2,200 Feet	12" Pipe S of SH 130 to N Colorado St.	\$200	\$440,000
S-20	6,000 Feet	12" Pipe E of Plum Creek Lift Station	\$200	\$1,200,000
S-21	5,200 Feet	12" Pipe along Lovers Ln.	\$200	\$1,040,000
S-22	3,900 Feet	12" Pipe W of Century Oaks Lift Station	\$200	\$780,000
S-23	2,800 Feet	10" Pipe E of Century Oaks Lift Station	\$180	\$504,000
S-24	5,000 Feet	18" Pipe along S Commerce St.	\$250	\$1,250,000
S-25	1,800 Feet	12" Pipe E of S Commerce St.	\$200	\$360,000
S-26	2,500 Feet	18" Pipe along S Commerce St.	\$250	\$625,000
S-27	4,300 Feet	12" Pipe W of Pecan Branch Lift Station	\$200	\$860,000
S-28	2,000 Feet	12" Pipe W of FM 20 East Lift Station	\$200	\$400,000
S-29	1 Each	Boggy Creek Lift Station	\$1,500,000	\$1,500,000
S-30	1,300 Feet	Boggy Creek Force Main	\$150	\$195,000
S-31	1 Each	Plum Creek Lift Station	\$1,500,000	\$1,500,000
S-32	5,500 Feet	Plum Creek Force Main	\$150	\$825,000
S-33	1 Each	South Commerce Lift Station	\$1,500,000	\$1,500,000
S-34	10,400 Feet	South Commerce Force Main	\$150	\$1,560,000
S-35	1 Each	Pecan Branch Lift Station	\$1,500,000	\$1,500,000
S-36	6,200 Feet	Pecan Branch Force Main	\$150	\$930,000
S-37	1 Each	FM 20 East Lift Station	\$1,500,000	\$1,500,000
		<b>TOTAL</b>		<b>\$35,766,500</b>



**LEGEND**

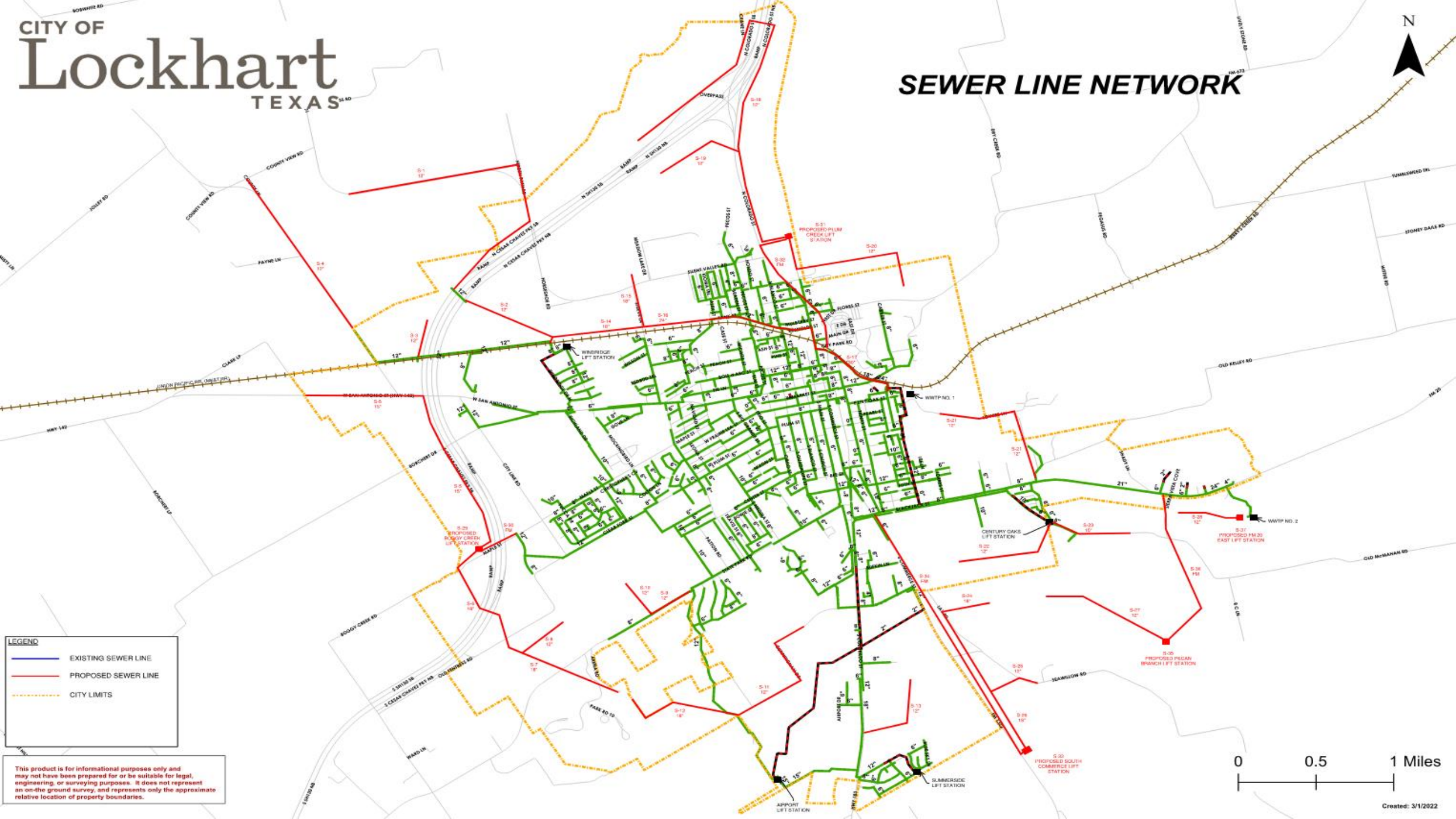
- EXISTING WATER LINE
- PROPOSED WATER LINE
- - - CITY LIMITS

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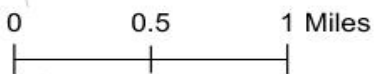
## SEWER LINE NETWORK



**LEGEND**

- EXISTING SEWER LINE
- PROPOSED SEWER LINE
- CITY LIMITS

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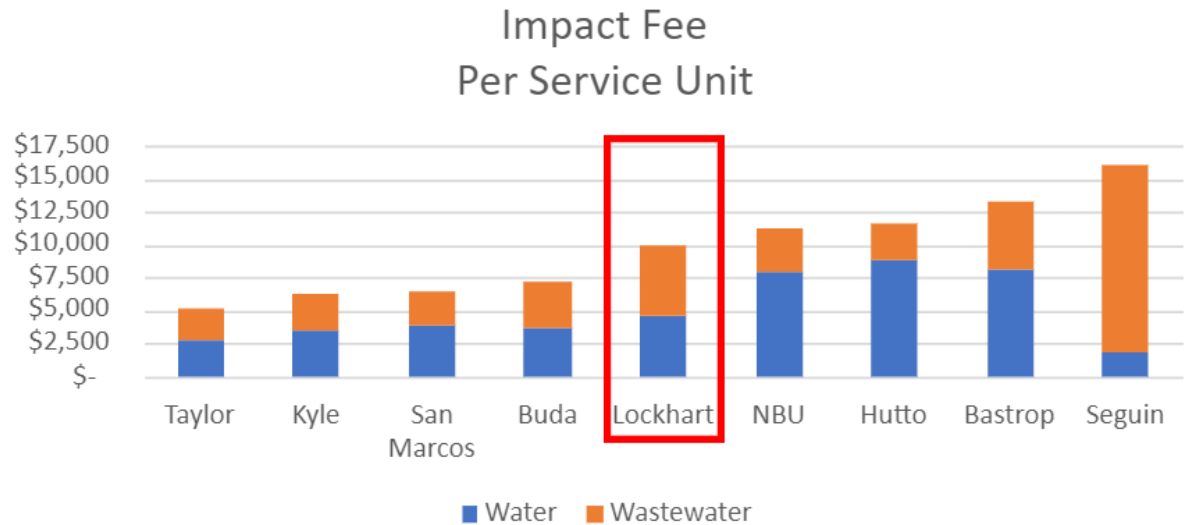


**Table 17 – Water and Wastewater Capital Cost Summary**

Utility	Facility	Cost/LUE	Credit/LUE	Maximum Fee/LUE
<b>WATER</b>	Wells	\$568.12	\$284.06	\$284.06
	Raw Water Transmission	\$315.49	\$157.75	\$157.75
	Treatment	\$432.91	\$216.46	\$216.46
	Pumping	\$134.58	\$67.29	\$67.29
	Elevated Storage	\$375.73	\$187.86	\$187.86
	Major Transmission	\$7,252.57	\$3,626.29	\$3,626.29
	Fee Update Cost	\$4.49	\$2.24	\$2.24
	Master Plan	\$40.83	\$20.42	\$20.42
	<b>TOTAL WATER CAPITAL COSTS</b>		<b>\$9,124.71</b>	<b>\$4,562.36</b>
<b>WASTEWATER</b>	Treatment	\$351.80	\$175.90	\$175.90
	Lift Stations (a)	\$1,531.25	\$765.63	\$765.63
	Major Collection	\$8,656.62	\$4,328.31	\$4,328.31
	Fee Update Cost	\$4.49	\$2.24	\$2.24
	Master Plan	\$40.83	\$20.42	\$20.42
	<b>TOTAL WASTEWATER CAPITAL COSTS</b>		<b>\$10,945.20</b>	<b>\$5,472.60</b>
<b>TOTAL WATER AND WASTEWATER CAPITAL COSTS</b>		<b>\$20,069.92</b>	<b>\$10,034.96</b>	<b>\$10,034.96</b>

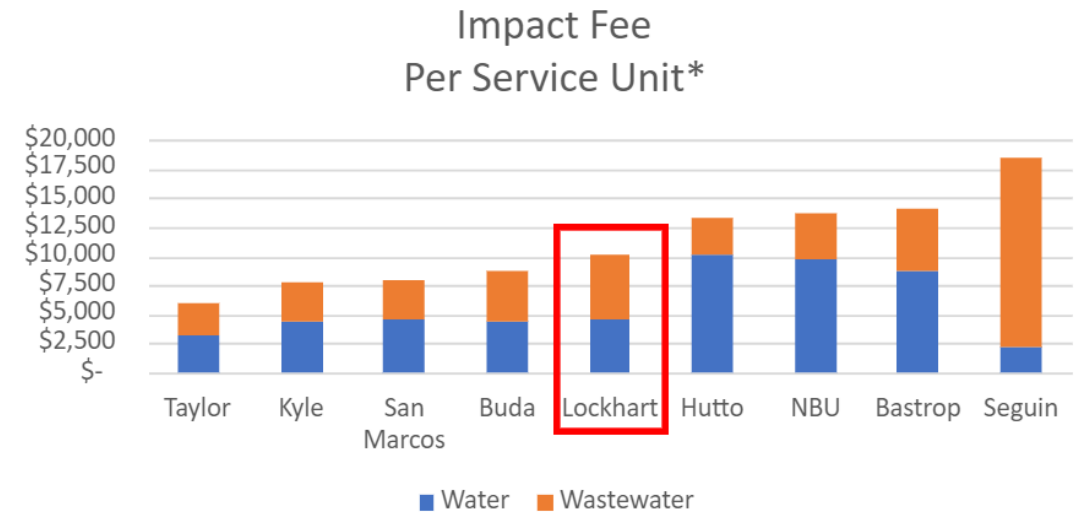
# Central Texas Impact Fees

City	Year	Current Population	Water Impact Fee Per Service Unit	Wastewater Impact Fee Per Service Unit	Total
Taylor	2021	16,807	\$2,800	\$2,400	\$5,200
Kyle	2017	51,789	\$3,535	\$2,826	\$6,361
San Marcos	2018	68,580	\$3,801	\$2,684	\$6,485
Buda	2017	15,643	\$3,595	\$3,515	\$7,110
<b>Lockhart</b>	<b>2022</b>	<b>15,210</b>	<b>\$4,562</b>	<b>\$5,473</b>	<b>\$10,035</b>
NBU	2018	98,857	\$7,989	\$3,251	\$11,240
Hutto	2021	30,855	\$8,832	\$2,788	\$11,620
Bastrop	2022	10,434	\$8,182	\$5,089	\$13,271
Seguin	2020	30,902	\$1,872	\$14,123	\$15,995



# Central Texas Impact Fees (Inflation Adjusted)

City	Year	Inflation Multiplier	Water Impact Fee Per Service Unit	Wastewater Impact Fee Per Service Unit	Total Impact Fee Per Service Unit
Taylor	2021	1.14	\$3,192	\$2,736	\$5,928
Kyle	2017	1.23	\$4,348	\$3,476	\$7,824
San Marcos	2018	1.21	\$4,599	\$3,248	\$7,847
Buda	2017	1.23	\$4,422	\$4,323	\$8,745
<b>Lockhart</b>	<b>2022</b>		<b>\$4,562</b>	<b>\$5,473</b>	<b>\$10,035</b>
Hutto	2021	1.14	\$10,068	\$3,178	\$13,247
NBU	2018	1.21	\$9,667	\$3,934	\$13,600
Bastrop	2022	1.06	\$8,673	\$5,394	\$14,067
Seguin	2020	1.16	\$2,172	\$16,383	\$18,554



# Impact Fee Summary

## Max Water Impact Fee

Parameter	LUE	Lockhart	Bastrop	Buda	Taylor	Hutto	Seguin	Kyle	San Marcos	NBU
Single Family House	1	\$ 4,562	\$ 8,182	\$ 3,595	\$ 2,800	\$ 8,832	\$ 1,872	\$ 3,535	\$ 3,801	\$ 7,989
10,000 SF Office Bldg	3.33	\$ 15,193	\$ 27,246	\$ 11,971	\$ 9,324	\$ 29,411	\$ 6,234	\$ 11,772	\$ 12,657	\$ 26,603
150,000 SF Shopping Center	90.36	\$ 412,255	\$ 739,326	\$ 324,844	\$ 253,008	\$ 798,060	\$ 169,154	\$ 319,423	\$ 343,458	\$ 721,886
50,000 SF Industrial Warehouse	12.5	\$ 57,030	\$ 102,275	\$ 44,938	\$ 35,000	\$ 110,400	\$ 23,400	\$ 44,188	\$ 47,513	\$ 99,863

Note: LUE Conversion Rate based on Austin Water LUE Guidance Document. This is a calculation to help **estimate** flows for various development types. Actual impact fee will be dependent on meter size(s) that the facility puts in.

# Impact Fee Summary

## Max Wastewater Impact Fee

Parameter	LUE	Lockhart	Bastrop	Buda	Taylor	Hutto	Seguin	Kyle	San Marcos	NBU
Single Family House	1	\$ 5,473	\$ 5,089	\$ 3,515	\$ 2,400	\$ 2,788	\$ 14,123	\$ 2,826	\$ 2,684	\$ 3,251
10,000 SF Office Bldg	3.33	\$ 15,193	\$ 16,946	\$ 11,705	\$ 7,992	\$ 9,284	\$ 47,030	\$ 9,411	\$ 8,938	\$ 10,826
150,000 SF Shopping Center	90.36	\$ 412,255	\$ 459,842	\$ 317,615	\$ 216,864	\$ 251,924	\$ 1,276,154	\$ 255,357	\$ 242,526	\$ 293,760
50,000 SF Industrial Warehouse	12.5	\$ 57,030	\$ 63,613	\$ 43,938	\$ 30,000	\$ 34,850	\$ 176,538	\$ 35,325	\$ 33,550	\$ 40,638

Note: LUE Conversion Rate based on Austin Water LUE Guidance Document. This is a calculation to help **estimate** flows for various development types. Actual impact fee will be dependent on meter size(s) that the facility puts in.

# Impact Fee Summary

## Max Total Water and Wastewater Impact Fee

Parameter	LUE	Lockhart	Bastrop	Buda	Taylor	Hutto	Seguin	Kyle	San Marcos	NBU
Single Family House	1	\$ 10,035	\$ 13,271	\$ 7,110	\$ 5,200	\$ 11,620	\$ 15,995	\$ 6,361	\$ 6,485	\$ 11,240
10,000 SF Office Bldg	3.33	\$ 33,416	\$ 44,192	\$ 23,676	\$ 17,316	\$ 38,695	\$ 53,263	\$ 21,182	\$ 21,595	\$ 37,429
150,000 SF Shopping Center	90.36	\$ 906,759	\$ 1,199,168	\$ 642,460	\$ 469,872	\$ 1,049,983	\$ 1,445,308	\$ 574,780	\$ 585,985	\$ 1,015,646
50,000 SF Industrial Warehouse	12.5	\$ 125,437	\$ 165,888	\$ 88,875	\$ 65,000	\$ 145,250	\$ 199,938	\$ 79,513	\$ 81,063	\$ 140,500

Note: LUE Conversion Rate based on Austin Water LUE Guidance Document. This is a calculation to help **estimate** flows for various development types. Actual impact fee will be dependent on meter size(s) that the facility puts in.