



THE 2016 UTILITY SYSTEM

WATER SUPPLY SYSTEM

The City of Laredo uses surface water from the Rio Grande River as its source of raw water. The two plants in the City of Laredo are Jefferson Water Treatment Plant 65 MGD and El Pico Water Treatment Plant 20 MGD for a combined capacity of 85 MGD. The average daily consumption during 2016 was approximately 36.291 million gallons per day and peak demand for 2016 was 58.51 million gallons per day. Connections to the water system as of September 30, 2016 were 70,545. The monthly average of meters read is 70,072. The average number of service calls per month is 12,890 for a FY 2015-2016 total of 154,683. Currently, the system consists of approximately 1,048 miles of transmission and distribution lines and 7,271 Fire Hydrants.

The City of Laredo owns approximately 62,009 acre-feet of municipal water rights.

The Jefferson Water Treatment Plant has two separate river intakes, two separate river pump structures and related multiple pump units. The lower treatment plant has been closed down permanently since 2013. The electrical system includes underground electrical power distribution system including three electrical buildings housing motor control centers. The Supervisory Control and Data Acquisition (SCADA) system combined with magnetic flow meters and motor operated valves allow increased precision in chemical addition for reduced operating costs. The traveling water screens, flocculators, re-lift pumps and five clarifiers provide a more reliable hydraulic capacity. Twelve gravity filters allow the facility to respond to wide variations in river water turbidity. The two high service pump stations and three clear wells provide a uniform water system pressure. The actual process and electrical system enhance the reliability of the treatment process.

El Pico Water Treatment Plant was putting on service on April 2015. El Pico Water Treatment Plant consists of a forebay for the raw water intake followed by the Raw Water Pump Station, Rapid Mix, Flocculation, Sedimentation, Filtration, Filter Building, Backwash Pumping, Backwash Equalization, Backwash Clarifier, Intermediate Pumping, Clearwell, High Service Pump Station, Sludge Thickener, Sludge Holding Tank, Sludge Dewatering, Dewatering Building, Chemical Building, Chemical Feed and Bulk Storage, Administration Building, Effluent Transmission Main, Electrical and Instrumentation including the SCADA control.

In 1957, the City of Laredo entered into an agreement with Webb County to use Lake Casa Blanca Reservoir as off-channel storage for emergency use. This reservoir has an impoundment capacity of 77,800 acre feet at top of the Dam, 58,600 acre feet at maximum pool, (PMF – Probable Maximum Feet) of which 20,000 acre feet are reserved for emergency use. This agreement is still in effect.

WASTEWATER SYSTEM

The City of Laredo owns and operates six wastewater treatment plants, which have a combined total design capacity of 29.251 million gallons per day ("MGD"). The pounds of BOD treated are 12,488,619 by all six wastewater treatment plants and a Total Bio-Solids disposal cost of \$635,219. The Sewer System includes approximately 754 miles of sewer lines and 70 lift stations. The average daily treatment is 20.637 MGD with 65,291 connections as of September 30, 2016.



THE 2016 UTILITY SYSTEM

TABLE 1 - WATER STORAGE AND DISTRIBUTION

At the present time the system incorporates the following treated water storage facilities:

<u>Location</u>	<u>No. Tanks</u>	<u>No. Clear Wells</u>	<u>Storage Capacity</u>
Jefferson St Water Treatment Plant		3	3,500,000 gallons
El Pico Water Treatment Plant		1	5,000,000 gallons
Lyon Street and Meadow Avenue	1		5,000,000 gallons
Milmo and Texas Avenue	2		2,000,000 gallons
Pinto Valle #1	1		200,000 gallons
MHOC	2		10,000,000 gallons
Sierra Vista	1		5,000,000 gallons
San Isidro NE	1		310,000 gallons
359 Hwy Booster	1		200,000 gallons
South Laredo	1 (elevated)		1,000,000 gallons
North Laredo (Highland)	1 (elevated)		1,000,000 gallons
Northwest Laredo	1 (elevated)		1,000,000 gallons
Las Blancas	1 (elevated)		500,000 gallons
Killam (TAMIU) Tank	1 (elevated)		2,000,000 gallons
Cuatro Vientos	1 (elevated)		2,000,000 gallons
Nixon Bartlett and Price	1 (elevated)		<u>3,000,000 gallons</u>
Total Treated Water Storage			<u>41,510,000 gallons</u>

TABLE 2 - WATER PUMPAGE (THOUSAND GALLONS)

Historical water usage for the City is as follows:

<u>Fiscal Year Ended 9/30</u>	<u>Average Day Pumpage (1,000 Gallons)</u>	<u>Peak Day Pumpage (1,000 Gallons)</u>	<u>Total Yearly Pumpage (1,000 Gallons)</u>
2006	40,918	58,940	14,086,761
2007	33,550	49,000	12,245,329
2008	36,720	53,640	13,345,812
2009	35,900	51,810	13,047,594
2010	32,565	47,470	11,900,196
2011	32,600	47,470	11,726,000
2012	28,386	52,312	10,427,878
2013	35,528	48,000	11,883,850
2014	25,936	47,594	9,465,347
2015	31,900	54,389	11,654,700
2016	36,291	58,506	12,520,848



THE 2016 UTILITY SYSTEM

TABLE 3 - SEWAGE FLOW (THOUSAND GALLONS)

Fiscal Year Ended 9-30	Average Day Sewage Flow (1,000 Gallons)	Peak Day Highest Flow (1,000 Gallons)	Total Yearly Flow (1,000 Gallons)
2006	16,796	24,617	6,130,409
2007	18,215	28,656	6,648,535
2008	17,948	23,337	6,551,082
2009	17,572	24,057	6,413,631
2010	18,256	33,196	6,663,368
2011	18,783	24,234	6,855,795
2012	18,900	30,896	6,780,000
2013	19,300	33,356	6,849,845
2014	18,800	33,900	6,874,400
2015	19,701	29,824	7,190,787
2016	20,637	30,400	7,241,500

TABLE 4 - TEN LARGEST WATER/SEWER USERS (GALLONS) (1)

TYPE OF BUSINESS	WATER CONSUMPTION (1)
Laredo Medical Center	89,239,400
Texas A&M University System	77,409,800
United I.S.D.	68,959,400
New Webb County Jail	25,202,400
Laredo Regional Medical Center	20,399,500
CPL Power Plant	16,944,800
Clarks Crossing Apartments	15,314,200
Laredo Community College	11,799,500
Broad Acres Apartments	11,498,000
Parks and Recreation	11,058,500

TYPE OF BUSINESS	SEWER CONSUMPTION (1)
Laredo Medical Center	89,239,400
New Webb County Jail	25,202,400
Laredo Regional Medical Center	20,399,500
Texas A&M University System	18,435,600
CPL Power Plant	16,944,800
Clarks Crossing Apartments	15,314,200
Broad Acres Apartments	11,498,000
International Bank of Commerce	10,370,700
Howard Johnson Hotel	10,242,200
Flying J	9,531,800

(1) Source: City of Laredo, Texas.



THE 2016 UTILITY SYSTEM

TABLE 5 - MONTHLY WATER RATES

Water Rates
 (Effective October 1, 2016)
 Inside City Limits
Residential

Meter sized based minimum monthly water charges for metered consumption from zero to 2,000 gallons:

5/8" & 3/4" meter	\$9.63
1" meter	\$20.96
1 1/2" meter	\$29.65
2" meter	\$46.04
 Per 1,000 gallons (for the next 2,000 gallons) per month in excess Of 2,000 gallons per month.....	1.88
 Per 1,000 gallons (for the next 6,000 gallons) per month in excess of 4,000 gallons per month.....	2.01
 Per 1,000 gallons (for the next 10,000 gallons) per month in excess of 10,000 gallons per month.....	2.08
 Per 1,000 gallons (for the next 10,000 gallons) per month in excess of 20,000 gallons per month.....	2.21
 Per 1,000 gallons (for the next 10,000 gallons) per month in excess of 30,000 gallons per month.....	2.35
 Per 1,000 gallons (for the next 10,000 gallons) per month in excess of 40,000 gallons per month.....	2.46
 Per 1,000 gallons per month in excess of 50,000 gallons per month.....	4.90

Multi-Family and Commercial:

Meter sized based minimum monthly water charges for metered consumption from zero to 2,000 gallons:

5/8" & 3/4" meter	\$36.26
1" meter	\$39.39
1 1/2" meter	\$43.81
2" meter	\$60.46
3" meter	\$120.28
4" meter	\$181.66
6" meter	\$327.17
8" meter	\$482.24



THE 2016 UTILITY SYSTEM

TABLE 5 - MONTHLY WATER RATES (CONTINUED)

Per 1,000 gallons (for the next 2,000 gallons) per month in excess of 2,000 gallons per month.....	2.01
Per 1,000 gallons (for the next 6,000 gallons) per month in excess of 4,000 gallons per month.....	2.47
Per 1,000 gallons (for the next 30,000 gallons) per month in excess of 10,000 gallons per month.....	3.11
Per 1,000 gallons (for the next 110,000 gallons) per month in excess of 40,000 gallons per month.....	3.28
Per 1,000 gallons (for the next 150,000 gallons) per month in excess of 150,000 gallons per month.....	3.55
Per 1,000 gallons (for the next 300,000 gallons) per month in excess of 300,000 gallons per month.....	3.92
Per 1,000 gallons (for the next 400,000 gallons) per month in excess of 600,000 gallons per month.....	4.63
Per 1,000 gallons per month in excess of 1,000,000 gallons per month.....	4.74

TABLE 6 - MONTHLY SEWER RATES (BASED ON WATER CONSUMPTION)

Per Ordinance [2016-O-143](#)

SEWER RATES - RESIDENTIAL (EFFECTIVE 11/07/16)

0 to 2,000 gallons	\$ 9.47
2,001 to 4,000 gallons	\$ 3.24
4,001 to 10,000 gallons	\$ 3.29
10,001 to 20,000 gallons	\$ 3.47
20,001 to 30,000 gallons	\$ 3.72
30,001 gallons and greater	\$ 3.72

Monthly charges are based on water consumption per 1,000 gallons.

Monthly sewer rate charges shall be based on metered water consumption as described with annual adjustments beginning on October 1, 2008 and every year that follows up to 2037.



THE 2016 UTILITY SYSTEM

TABLE 6 - MONTHLY SEWER RATES (CONTINUED)

**SEWER RATES - MULTI-FAMILY AND
COMMERCIAL
(EFFECTIVE 11/07/16)**

0 to 2,000 gallons	\$ 25.36
2,001 to 4,000 gallons	\$ 2.41
4,001 to 10,000 gallons	\$ 2.46
10,001 to 40,000 gallons	\$ 2.82
40,001 to 150,000 gallons	\$ 2.91
150,001 to 300,000 gallons	\$ 3.72
300,001 to 600,000 gallons	\$ 3.72
600,001 to 1,000,000 gallons	\$ 4.25
1,000,001 gallons and greater	\$ 5.16

WATER CONSERVATION PROGRAM

The Utilities Department Water Conservation Program is designed to provide practices, techniques, and technologies that help reduce the consumption of water, reduce the loss or waste of water, improve the efficiency in the use of water, and increase the recycling and reuse of water for the ultimate purpose of making available a water supply for future or alternative uses. The Water Conservation Program operates to implement and enforce the Water Conservation & Drought Contingency Ordinance. The program is divided into two sections; enforcement and public education. For enforcement there were a total of 601 warnings issued and 20 citations. For public education there were 8 various events by hosting proclamations, groundbreaking ceremonies, ribbon cutting ceremonies, career day events, and other city/civic events. The WaterSense High Efficiency Toilet (HET) Rebate Program is designed to encourage water customers to replace old water wasting toilets with new high efficiency toilets. For each toilet replaced (maximum 2 per household per year), the City of Laredo Utilities Department provides the water customer with a standard one-hundred dollar (\$100.00) rebate, which is applied as a credit to the participants water account. Each installation of toilet is verified by water conservation inspectors, the old water wasting toilet(s) are destroyed (tank only) by the participating customer. The old toilets are reported to the Solid Waste Department and are scheduled for collection at each participant's address to be transported to the City of Laredo Landfill. During fiscal year 2015-2016, there were a total of 103 toilets rebates approved and applied. A total of 3 vehicle car wash permits were issued during this Fiscal Year.