



Water Loss Reduction Report
2020–2025 Historical Review
Jan–Jun 2026 Operational Results

Executive Summary

The City of Gladewater achieved measurable improvements in water accountability through enhanced operational coordination between the Water Treatment Plant and Public Works Department. Distribution system losses decreased by approximately 58.8 million gallons (47%) compared with the same period in 2025. Total system losses from raw water intake to customer billing decreased by approximately 41.5 million gallons (24%). Customer billed consumption remained essentially unchanged, indicating that the improvement resulted from recovering non-revenue water rather than reduced customer demand.

Historical Background

Between 2020 and 2025, the City's water accountability data shows a steady increase in non-revenue water. Historical records indicate that deferred maintenance within the distribution system allowed numerous water main leaks to remain active for extended periods. As treated water escaped from the system before reaching customers, non-revenue water steadily increased despite relatively stable billed consumption. Unaccounted-for water increased from approximately 55.6 million gallons in 2020 to 212.9 million gallons in 2025 representing nearly a **FOUR-FOLD** increase over five years.

Operational Improvements Implemented

Water Treatment Plant personnel continuously monitor plant production, SCADA trends, distribution flows, and storage tank levels. Unusual flow trends are immediately communicated to Public Works, allowing leaks to be identified and repaired much sooner. In addition to monitoring system performance, Water Treatment Plant operators manage the operation of the high-service pumps to maintain adequate system pressure for customers while supporting distribution system maintenance. Operators maintain system pressure above the minimum regulatory and operational target of **35 psi**, while avoiding unnecessarily high pressures that can increase water loss and make repairs more difficult. During water main repairs, pump operation and storage tank levels are adjusted to provide Public Works personnel with lower operating pressures whenever practical, improving repair efficiency, reducing water loss during excavations, and enhancing employee safety. Reducing the amount of treated water lost before reaching customers allows decreased by **58.8 million gallons (47%)** compared with the same period in 2025, while billed customer consumption remained nearly unchanged. Overall system losses from raw water intake to customer billing were reduced by **41.5 million gallons (24%)**, demonstrating measurable improvements in operational efficiency and water conservation.

Key Performance Indicators

- 47% reduction in distribution system water loss.
- 24% reduction in total system water loss.
- 58.8 million gallons reduction in distribution losses.
- 41.5 million gallons reduction in total losses.
- Customer consumption remained relatively stable.
- Improved communication between departments.
- Faster leak identification and repair response.

Financial Impact

Every gallon of treated water lost through distribution system leaks has already incurred production costs including:

- Raw water pumping
- Coagulants
- Disinfection chemicals
- Electricity
- Laboratory testing
- Operator labor
- Equipment maintenance
- Chemical feed equipment operation

Consequently, increasing water loss results in higher production costs without generating additional revenue. Reducing non-revenue water improves both operational efficiency and long-term financial sustainability.

Measurable Results

<i>Performance Measure</i>	Improvement
<i>Distribution Water Loss</i>	↓ 47%
<i>Total Water Loss</i>	↓ 24%
<i>Water Lost</i>	58.8 million gallons recovered
<i>Customer Consumption</i>	Essentially unchanged
<i>Leak Response</i>	Improved
<i>Interdepartmental Communication</i>	Continuous
<i>Operational Efficiency</i>	

Recommendations

Continue proactive leak detection, preventive maintenance, pressure management, infrastructure replacement, SCADA monitoring, and close coordination between Water Treatment and Public Works. Continue tracking monthly performance indicators and reporting results to City leadership.

Conclusion

The operational improvements implemented demonstrate that focused management, teamwork, and timely maintenance can significantly improve water accountability without major capital expenditures. Continued investment in leak detection, infrastructure maintenance, and interdepartmental communication will further improve system reliability, conserve treated drinking water, reduce operating costs, and enhance long-term sustainability for the City of Gladewater.

	2020	2021	2022	2023	2024	2025
Sent to Dist System	319,773,000	373,240,000	311,985,000	323,232,000	371,972,799	377,725,000
Billed (Accounted For)	264,180,790	264,181,819	166,320,000	180,007,962	180,788,987	164,794,772
Loss (Unaccounted For)	55,592,210	109,058,181	145,665,000	143,224,038	191,183,812	212,930,228

Sent to Dist System			
	2025	2026	
JAN	37,596,500	24,572,500	
FEB	31,009,100	20,686,800	
MAR	33,085,900	23,447,000	
APR	33,834,000	23,039,900	
MAY	34,601,500	24,656,200	
JUN	33,834,700	25,529,200	
	203,961,700	141,931,600	62,030,100

Billed (Accounted For)			
	2025	2026	
JAN	13,082,474	12,658,600	
FEB	12,645,064	12,846,800	
MAR	15,512,000	10,911,901	
APR	12,371,100	13,240,300	
MAY	12,399,200	12,482,670	
JUN	12,707,523	13,370,128	
	78,717,361	75,510,399	3,206,962

Loss (Unaccounted For)			
	2025	2026	
JAN	24,514,026	11,913,900	
FEB	18,364,036	7,840,000	
MAR	17,573,900	12,535,099	
APR	21,462,900	9,799,600	
MAY	22,202,300	12,173,530	
JUN	21,127,177	12,159,072	
	125,244,339	66,421,201	58,823,138

Total Loss (Unaccounted For)			
	2025	2026	
Jan	36,174,026	25,662,100	
Feb	23,766,236	20,302,000	
Mar	22,822,700	24,767,099	
Apr	30,392,800	20,645,700	
May	30,032,100	22,175,530	
Jun	32,977,077	21,069,872	
	176,164,939	134,622,301	41,542,638

Jan - June 2025 -2026 Comparrison

Raw Water to Plant

	Jan	Feb	Mar	Apr	May	Jun	TOTAL
2025	49,256,500	36,411,300	38,334,700	42,763,900	42,431,300	45,684,600	254,882,300
2026	38,320,700	33,148,800	35,679,000	33,886,000	34,658,200	34,440,000	210,132,700
							44,749,600

Sent to Dist System (From Plant to Distribution)

	Jan	Feb	Mar	Apr	May	Jun	TOTAL
2025	37,596,500	31,009,100	33,085,900	33,834,000	34,601,500	33,834,700	203,961,700
2026	24,572,500	20,686,800	23,447,000	23,039,900	24,656,200	25,529,200	141,931,600
							62,030,100

Billed (Water Meters)

	Jan	Feb	Mar	Apr	May	Jun	TOTAL
2025	13,082,474	12,645,064	15,512,000	12,371,100	12,399,200	12,707,523	78,717,361
2026	12,658,600	12,846,800	10,911,901	13,240,300	12,482,670	13,370,128	75,510,399
							3,206,962

Loss (Sent to Dist System - Billed)

	Jan	Feb	Mar	Apr	May	Jun	TOTAL
2025	24,514,026	18,364,036	17,573,900	21,462,900	22,202,300	21,127,177	125,244,339
2026	11,913,900	7,840,000	12,535,099	9,799,600	12,173,530	12,159,072	66,421,201
							58,823,138

Total Loss (Raw Water to Plant - Billed)

	Jan	Feb	Mar	Apr	May	Jun	TOTAL
2025	36,174,026	23,766,236	22,822,700	30,392,800	30,032,100	32,977,077	176,164,939
2026	25,662,100	20,302,000	24,767,099	20,645,700	22,175,530	21,069,872	134,622,301
							41,542,638

5 Year Water Loss Data

	2020	2021	2022	2023	2024	2025
Raw Water to Plant	397,770,000	460,319,934	386,591,000	383,150,500	423,418,875	494,815,000
Sent to Dist System	319,773,000	373,240,000	311,985,000	323,232,000	371,972,799	377,725,000
Loss	77,997,000	87,079,934	74,606,000	59,918,500	51,446,076	117,090,000

	2020	2021	2022	2023	2024	2025
Sent to Dist System	319,773,000	373,240,000	311,985,000	323,232,000	371,972,799	377,725,000
Billed (Accounted For)	264,180,790	264,181,819	166,320,000	180,007,962	180,788,987	164,794,772
Loss	55,592,210	109,058,181	145,665,000	143,224,038	191,183,812	212,930,228

	2020	2021	2022	2023	2024	2025
Raw Water to Plant	397,770,000	460,319,934	386,591,000	383,150,500	423,418,875	494,815,000
Billed (Accounted For)	264,180,790	264,181,819	166,320,000	180,007,962	180,788,987	164,794,772
Total Loss	133,589,210	196,138,115	220,271,000	203,142,538	242,629,888	330,020,228

