

**TEXAS WATER DEVELOPMENT BOARD**

P.O. BOX 13231, CAPITOL STATION

AUSTIN, TX 78711-3231

**2021 WATER AUDIT REPORT**

**A. Water Utility General Information**

1. Water Utility Name	<u>CITY OF LULING</u>		
1a. Regional Water Planning Area	<u>L</u>		
1b. Address	<u>509 E CROCKETT ST</u>		
	<u>LULING, TX 78648-2603</u>		
2. Contact Information			
2a. Name	<u>Ernest Saldana</u>	Have you completed Water Loss Auditor Training?	
2b. Telephone Number	<u>(830) 351-0056</u>	<input checked="" type="radio"/> Yes	
2c. Email Address	<u>esaldana@cityofluling.net</u>	<input type="radio"/> No	
3. Reporting Period			
3a. Start Date	<u>01/01/2021</u>		
3b. End Date	<u>12/31/2021</u>		
4. Source Water Utilization			
4a. Surface Water	<u>100.00</u>	%	
4b. Ground Water	<u>0.00</u>	%	
5. Population Served			
5a. Retail Population Served	<u>5,869</u>		Assessment Scale
5b. Wholesale Population Served	<u>0</u>		
6. Utility's Length of Main Lines	<u>250.00</u>	miles	<u>0.5</u>
7. Total Retail Metered Connections - Active and Inactive	<u>2,711</u>		
7b. Service Connections	<u>2,711</u>		<u>1</u>
8. Number of Wholesale Connections Served	<u>0</u>		
9. Service Connection Density	<u>10.84</u>	connections per mile	
10. Average Yearly System Operating Pressure	<u>65.00</u>	psi	<u>0.5</u>
11. Volume Units of Measure	<u>Gallons</u>		

**B. System Input Volume**

12. Volume of Water Intake	<u>250,618,000</u>	gallons	
13. Produced Water	<u>250,618,000</u>	gallons	<u>1.5</u>
13a. Production Meter Accuracy	<u>100.00</u>	%	<u>1.5</u>
13b. Corrected Input Volume	<u>250,618,000</u>	gallons	
14. Total Treated Purchased Water	<u>0</u>	gallons	<u>0.5</u>
14a. Treated Purchased Water Meter Accuracy	<u>100.00</u>	%	<u>0.5</u>

**TEXAS WATER DEVELOPMENT BOARD**

P.O. BOX 13231, CAPITOL STATION

AUSTIN, TX 78711-3231

**2021 WATER AUDIT REPORT**

14b. Corrected Treated Purchased Water Volume	0	gallons	
	<hr/>		
15. Total Treated Wholesale Water Sales	0	gallons	0.5
15a. Treated Wholesale Water Meter Accuracy	0.00	%	0.5
15b. Corrected Treated Wholesale Water Sales Volume	0	gallons	
	<hr/>		
<b>16. Total System Input Volume</b>	250,618,000	gallons	
Line 13b + Line 14b - Line 15b			
			Assessment Scale
<b>C. Authorized Consumption</b>			
17. Billed Metered	229,092,700	gallons	0.5
18. Billed Unmetered	0	gallons	0.5
19. Unbilled Metered	0	gallons	0.5
20. Unbilled Unmetered	572,732	gallons	0.5
	<hr/>		
<b>21. Total Authorized Consumption</b>	229,665,432	gallons	
	<hr/>		
<b>D. Water Losses</b>			
<b>22. Water Losses</b>	20,952,568	gallons	
Line 16 - Line 21			
	<hr/>		
<b>E. Apparent Losses</b>			
23. Average Customer Meter Accuracy	100.00	%	0.5
24. Customer Meter Accuracy Loss	0	gallons	
25. Systematic Data Handling Discrepancy	572,732	gallons	0.5
26. Unauthorized Consumption	572,732	gallons	0.5
	<hr/>		
<b>27. Total Apparent Losses</b>	1,145,464	gallons	
	<hr/>		
<b>F. Real Losses</b>			
28. Reported Breaks and Leaks	0	gallons	0.5
29. Unreported Loss	19,807,104	gallons	0.5
	<hr/>		
<b>30. Total Real Losses</b>	19,807,104	gallons	
Line 28 + Line 29			
	<hr/>		
<b>31. Total Water Losses</b>	20,952,568	gallons	
Line 27 + Line 30			
	<hr/>		
32. Non-Revenue Water	21,525,300	gallons	
Line 31 + Line 19 + Line 20			
	<hr/>		
<b>G. Technical Performance Indicator for Apparent Loss</b>			
33. Apparent Losses Normalized	1.16	gallons lost per	
Line 27 / Line 7b / 365		connection per day	
	<hr/>		

**TEXAS WATER DEVELOPMENT BOARD**

P.O. BOX 13231, CAPITOL STATION

AUSTIN, TX 78711-3231

**2021 WATER AUDIT REPORT**

**H. Technical Performance Indicators for Real Loss**

34. Real Loss Volume	<u>19,807,104</u>	gallons
Line 30		
35. Unavoidable Annual Real Losses Volume	<u>0</u>	gallons
(5.41 * Line 6 + (Line 7b * 0.15 )) * 365 * Line 10		
36. Infrastructure Leakage Index	<u>0.00</u>	I.L.I
Line 34 / Line 35		
37. Real Losses Normalized - Service Connections	<u>20.02</u>	gallons lost per connection per day
Line 34 / Line 7b / 365		
38. Real Losses Normalized - Main Lines	<u>217.06</u>	gallons lost per mile per day
Line 34 / Line 6 / 365		

**I. Financial Performance Indicators**

			Assessment Scale
39. Total Apparent Losses	<u>1,145,464</u>	gallons	
Line 27			
40. Retail Price of Water	<u>0.00300</u>	\$/gallons	<u>1.5</u>
41. Cost of Apparent Losses	<u>\$3,436</u>		
Line 39 x Line 40			
42. Total Real Losses	<u>19,807,104</u>	gallons	
Line 30			
43. Variable Production Cost of Water	<u>0.002000</u>	\$/gallons	<u>1.5</u>
44. Cost of Real Losses	<u>\$39,614</u>		
Line 42 x Line 43			
45. Total Cost Impact of Apparent and Real Losses	<u>\$43,050</u>		
Line 41 + Line 44			
46. Total Assessment Score	<u>14.5</u>		

**J. System Losses and Gallons Per Capita per Day (GPCD)**

47. Total Water Loss per Connection per Day	<u>21.17</u>	gallons
Line 22 / Line 7b / 365	<u>117</u>	
48. GPCD Input		
Line 16 / Line 5a / 365	<u>10</u>	
49. GPCD Loss		
Line 31 / Line 5a / 365		

**K. Wholesale Factor Adjustments**

50. Percent of Treated Wholesale Water Traveling through General Distribution System	<u>0.00</u>	%
--	-------------	---

**TEXAS WATER DEVELOPMENT BOARD**

P.O. BOX 13231, CAPITOL STATION

AUSTIN, TX 78711-3231

**2021 WATER AUDIT REPORT**

51. Volume of Treated Wholesale Water Traveling through General Distribution System (Line 50/100) * Line 15b	<u>0</u>	gallons
52. Wholesale Factor Line 15b / (Line 13b + Line 14b)	<u>0.00</u>	
53. Adjusted Real Loss Volume ((1 - Line 52) x (Line 30 * Line 50 / 100)) + (Line 30 - (Line 30 * Line 50/100))	<u>19,807,104</u>	gallons
54. Adjusted Cost of Real Losses ((1 - Line 52) x (Line 44 * Line 50 / 100)) + (Line 44 - (Line 44 * Line 50/100))	<u>\$39,614</u>	
55. Adjusted Total Water Loss Volume ((1 - Line 52) x (Line 31 * Line 50 / 100)) + (Line 31 - (Line 31 * Line 50/100))	<u>20,952,568</u>	gallons
56. Adjusted Total Cost Impact of Apparent and Real Losses ((1 - Line 52) x (Line 45 * Line 50 / 100)) + (Line 45 - (Line 45 * Line 50/100))	<u>\$43,050</u>	
57. Adjusted Real Loss Per Connection ((1 - Line 52) x (Line 37 * Line 50 / 100)) + (Line 37 - (Line 37 * Line 50/100))	<u>20.02</u>	gallons lost per connection per day
58. Adjusted Real Loss Per Mile ((1 - Line 52) x (Line 38 * Line 50 / 100)) + (Line 38 - (Line 38 * Line 50/100))	<u>217.06</u>	gallons lost per mile per day
59. Adjusted Infrastructure Leakage Index ((1 - Line 52) x (Line 36 * Line 50 / 100)) + (Line 36 - (Line 36 * Line 50/100))	<u>0.00</u>	I.L.I
60. Adjusted Total Water Loss Per Connection Per Day (((1 - Line 52) x (Line 37 * Line 50 / 100)) + (Line 37 - (Line 37 * Line 50/100))) + Line 33	<u>21.18</u>	gallons
61. Adjusted GPCD Loss ((1 - Line 52) x (Line 49 * Line 50 / 100)) + (Line 49 - (Line 49 * Line 50/100))	<u>10</u>	

**Comments**