

# Small System Water Audit

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# Small System Water Audit

- The small system water audit was developed in response to state legislation: Section 3.4 of Session Law 2011-374 (House Bill 609).
  - Water efficiency and conservation
  - **Water auditing**
  - Water loss abatement
  - Metering
  - Retrofitting fixtures and equipment
  - Efficient landscaping
  - Water reuse
  - Full-cost pricing of water



# Small System Water Audit


Parameter	AWWA Water Audit	Small System Water Audit
Apparent Water Loss	•	•
Real Water Loss	•	•
Revenue Water	•	•
Non-Revenue Water (NRW)	•	•
Cost of Apparent Loss	•	•
Cost of Real Loss	•	•
Percent Water Loss		•
Percent NRW	•	
Data Validity Score	•	
Performance Indicators	•	
Water Loss Planning Guide	•	
Annual Tracking Chart		•
Water Balance Dashboard	•	



**WATER SYSTEM AUDIT WORKSHEET**

(Units should be reported in gallons per year, gpy)

Enter values in non-shaded cells only.

Cells with red triangles  contain information. Roll your pointer over the triangle to reveal the information.

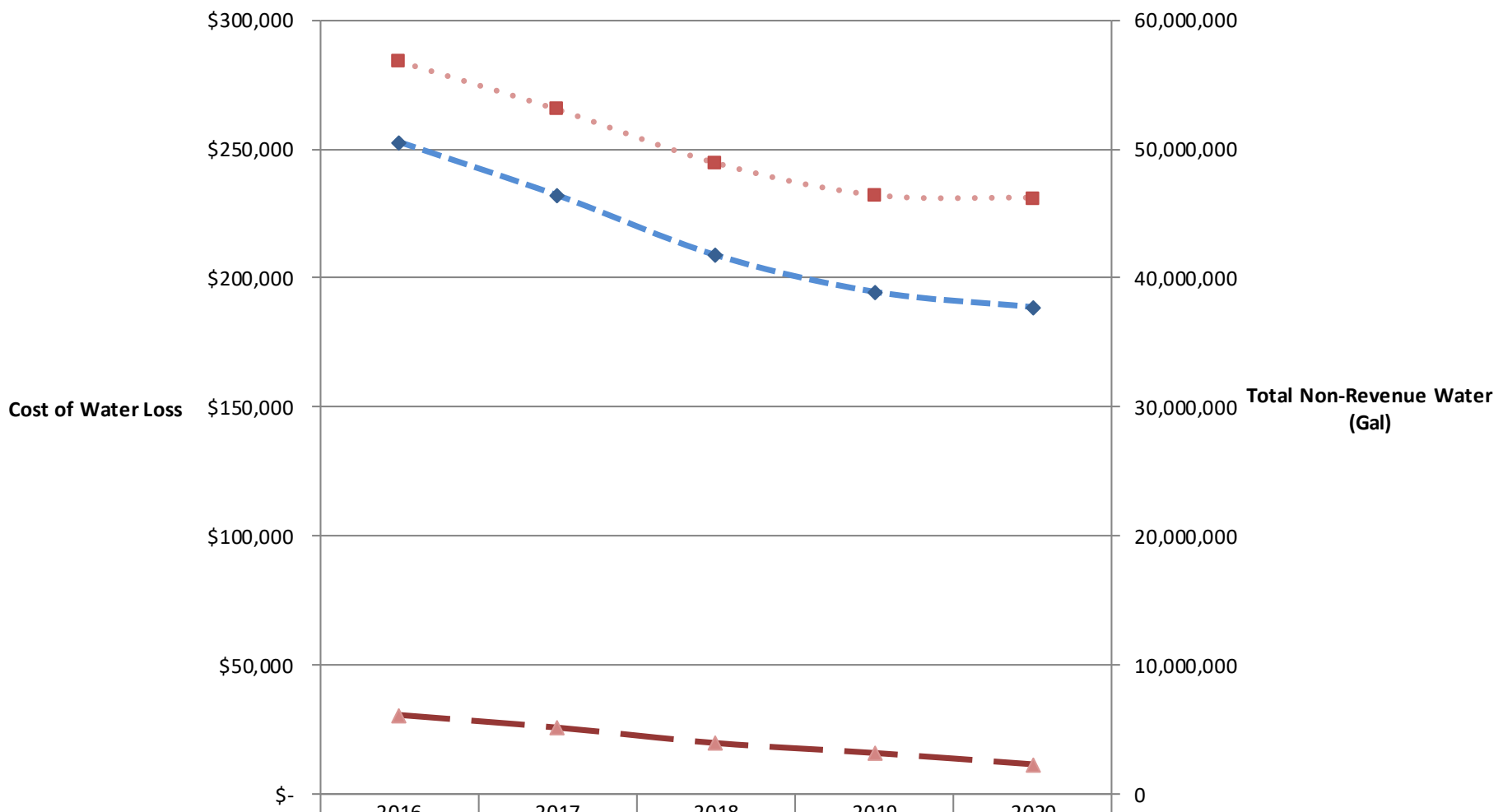
Tutorial	Unhide	Preview	2016	Hide	Preview	2017	Hide	Preview	2018	Hide	Preview	2019	Hide	Preview	2020	Hide	
<b>WATER DELIVERED (Gal/Yr)</b>																	
1. Total Source Water Supply (Raw Water)	Metered	Unmetered	0	Metered	Unmetered	0	Metered	Unmetered	0	Metered	Unmetered	0	Metered	Unmetered	0	Metered	Unmetered
Ground Water Sources																	
Surface Water Sources																	
2. Adjustments to Water Delivery			0			0			0			0					0
Backwash water																	
Other (e.g. tank maintenance, meter calibration, wash water, etc.)																	
3. Water Produced (as read from finished water meter)																	
4. Purchase Water Sources																	
<b>Water Delivered to Distribution System</b>			0			0			0			0					0
<b>WATER USED (Gal/Yr)</b>																	
5. Water Sold	Metered	Unmetered		Metered	Unmetered		Metered	Unmetered		Metered	Unmetered		Metered	Unmetered		Metered	Unmetered
Residential																	
Commercial																	
Industrial																	
Institutional																	
Other Water Systems (Utilities)																	
Other																	
<b>Total Water Sold</b>			0			0			0			0					0
6. Water Not Sold (metered and unmetered)	Metered	Unmetered		Metered	Unmetered		Metered	Unmetered		Metered	Unmetered		Metered	Unmetered		Metered	Unmetered
Residential																	
Commercial																	
Industrial																	
Institutional																	
Water Main Flushing (Institutional)																	
Sewer/Storm Drain Flushing (Institutional)																	
Parks/Playgrounds/Swimming Pools (Institutional)																	
Road Medians (Institutional)																	
Schools (Institutional)																	
Training/Fire Fighting (Institutional)																	
Storage Tank Drainage (within distribution system) (Institutional)																	
Sewer Plant Uses (Institutional)																	
Municipal Buildings (Institutional)																	
Golf Courses (Commercial)																	
Cemeteries (Commercial)																	
Construction Use (Commercial)																	
Other																	
<b>Total Water Not Sold</b>			0			0			0			0					0
<b>WATER LOSSES (Gal/Yr)</b>																	
7. Apparent Water Losses																	
Water Meter Error (see tab: Meter Error Table)			0			0			0			0					0
Data Handling Error																	
Theft																	
Other																	
<b>Total Apparent Losses</b>			0			0			0			0					0
8. Real Water Losses																	
Distribution System Leaks			0			0			0			0					0
Storage Overflow																	
Other (e.g. service line to meter leaks)																	
<b>Total Real Losses</b>			0			0			0			0					0
9. Total Non-Revenue Water			0			0			0			0					0
10. Percentage Water Loss			0			0			0			0					0
11. Annual Cost of Apparent Losses			\$ -			\$ -			\$ -			\$ -					\$ -
12. Annual Cost of Real Losses			\$ -			\$ -			\$ -			\$ -					\$ -
13. Cost to Produce Water* (see tab: Cost to Produce Calculator)			\$ -			\$ -			\$ -			\$ -					\$ -
14. Retail Charge for Water* (see tab: Retail Charge Calculator)			\$ -			\$ -			\$ -			\$ -					\$ -
15. Composite rate for water not sold (\$/1,000 Gal.)																	

\*Value per 1,000 Gal.

Negative water loss will appear in red cells. If this happens, check the water delivered and water used values. Water

# Water Management Chart

■ Annual Cost of Apparent Losses    
 ▲ Annual Cost of Real Losses    
 ◆ Total Non-Revenue Water (Gal)



	2016	2017	2018	2019	2020
Annual Cost of Apparent Losses	\$284,026.72	\$265,278.98	\$244,423.02	\$231,961.82	\$230,903.21
Annual Cost of Real Losses	\$30,226.00	\$25,298.67	\$19,308.57	\$15,460.86	\$11,052.68
Total Non-Revenue Water (Gal)	50,485,000	46,365,500	41,747,310	38,920,128	37,734,140

**Audit Period**

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## Questions?

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