



**Presentation and
Discussion Item 7**

FY22 WATER LOSS AUDIT RESULTS



April 26, 2023

New Water Loss Regulations

- 2017-2023 – Perform a Water Loss Audit, have it validated by a certified 3rd Party, and submit to DWR
- 2020-2022 – Real Loss Performance Standards set by DWR for each urban retail water supplier
 - Mesa Water Real Loss standard is 16.7 gallons/connection/day
 - Mesa Water Apparent Loss standard is 11.4 gallons/connection/day
- 2023-2028 – Submit Water Loss Audit + three new questionnaires
- 2028 – Meet the Real Loss standard + Apparent Loss standard+ Water Loss Audit+ questionnaires

Real Loss and Apparent Loss

$$\text{Water Loss} = \text{Water Supplied} - \text{Water Demand}$$

- Clear Wells
- MWRF
- Customer meters
- Authorized, unmetered (ie, CMFD, CMSD)

$$\text{Water Loss} = \text{Apparent Loss} + \text{Real Loss}$$

- Customer meter inaccuracy
- Theft
- Billing discrepancies
- Main line breaks
- Service line breaks
- Background leakage

$$\text{Real Loss} = \text{Water Loss} - \text{Apparent Loss}$$

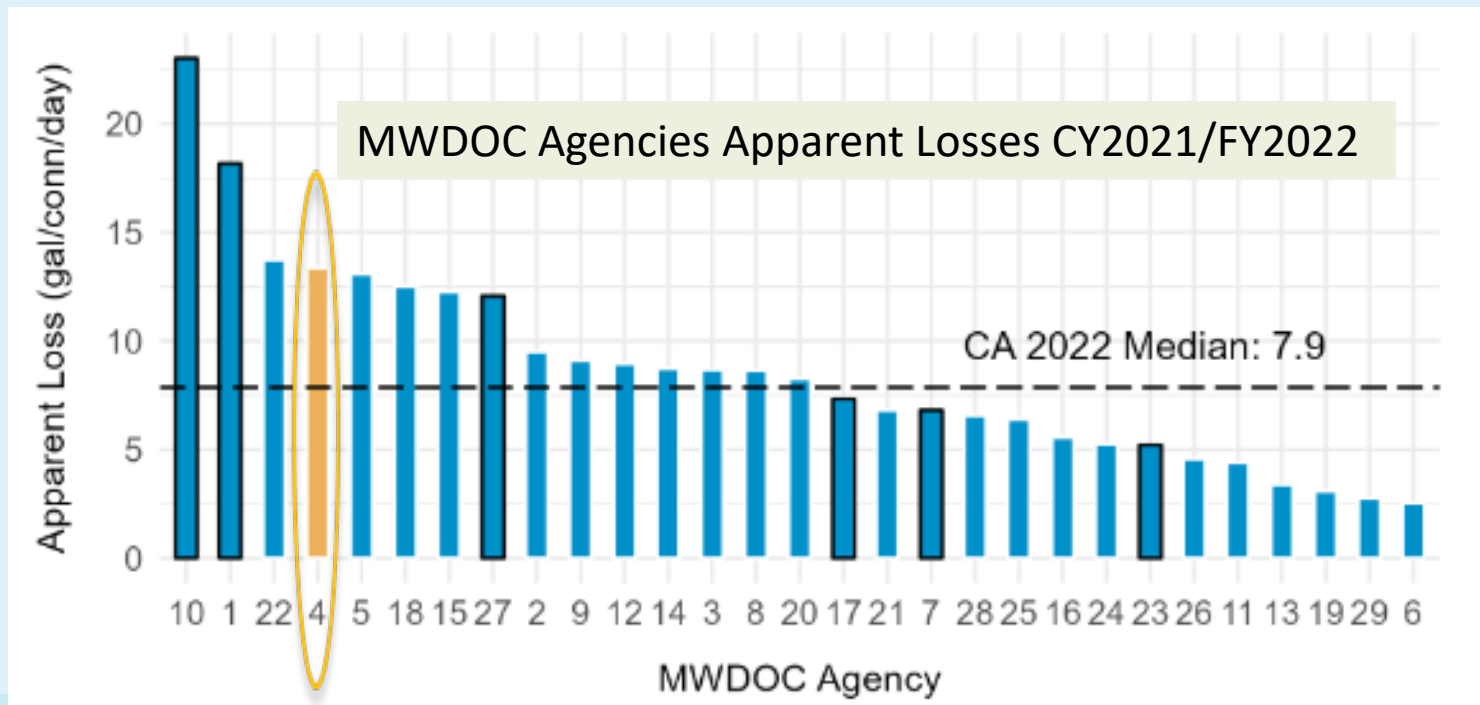
FY22 Water Loss Audit Outputs-KPIs

KPI	Mesa Water	California Percentile	MWDOC Member Agency Percentile
Real Loss (as percent of water supplied)	1.2%	Not available	Not available
Real Loss (Gal/connection/day)	7.9	Best 5%	Best 25%
Apparent Loss (Gal/connection/day)	13.4	Bottom 20%	Bottom 15%
Infrastructure Leakage Index (ILI)	0.44	Best 20%	Best 25%
Data Validity Score	79	Best 20%	Best

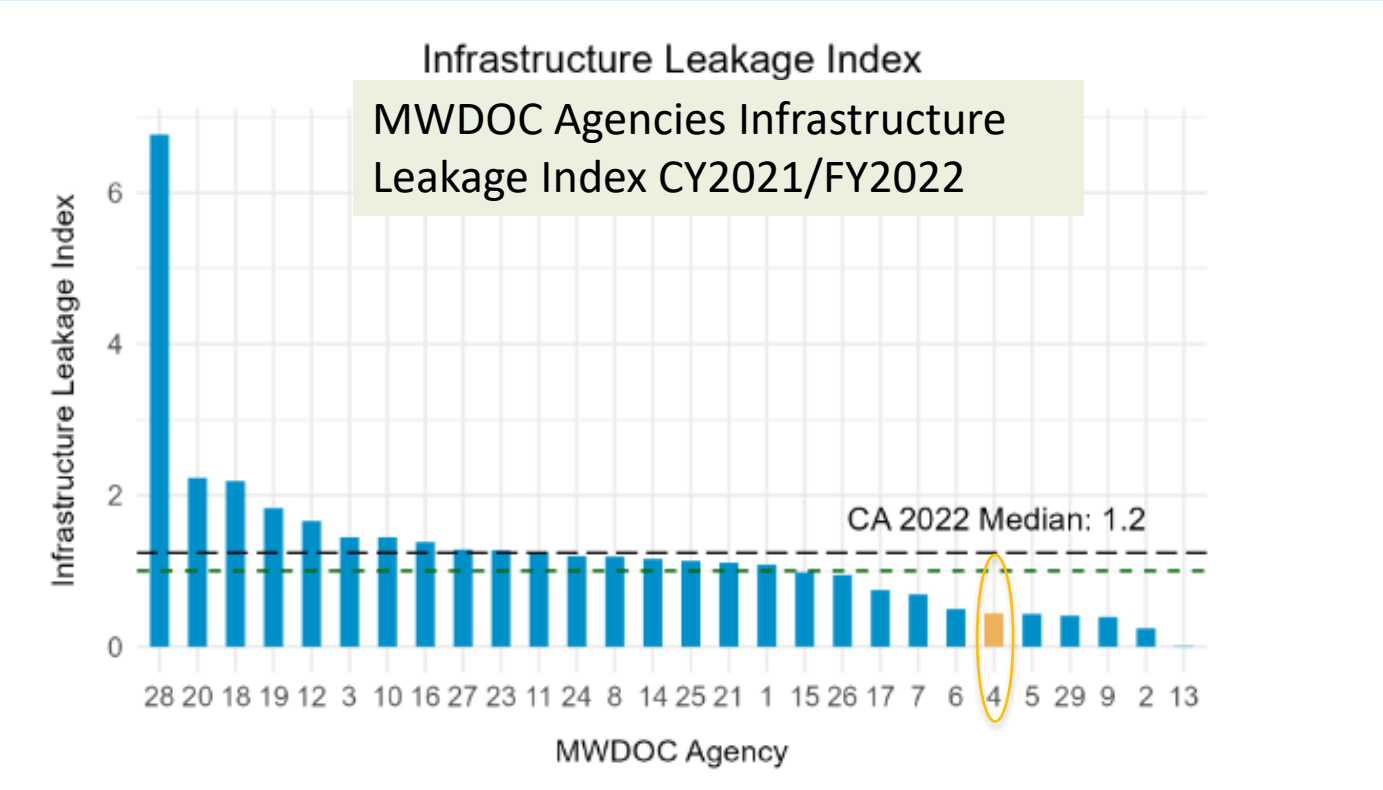
Real Losses



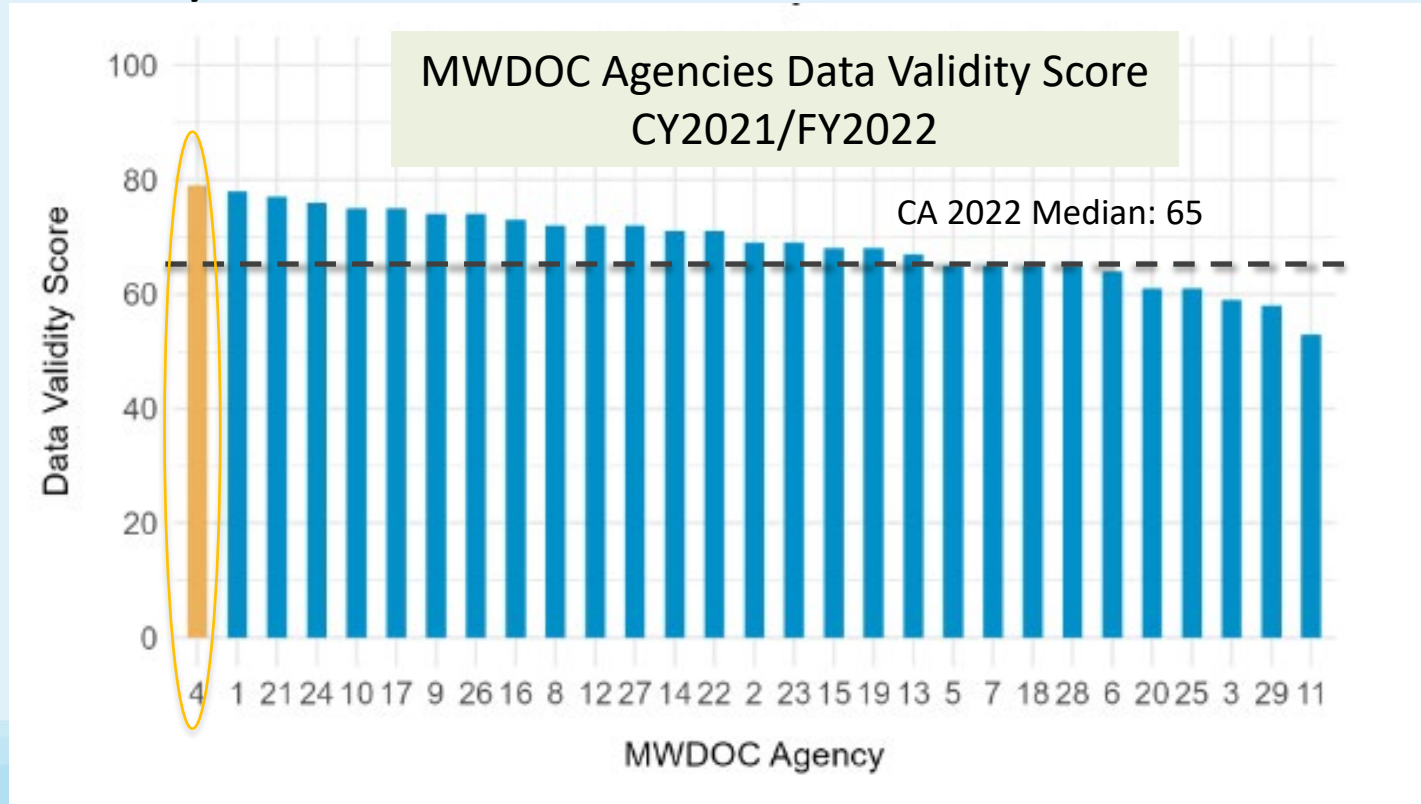
Apparent Losses



Infrastructure Leakage Index (ILI)



Data Validity Score



2028 Performance Standards

	2028 Standard (gal/conn/day)	FY2022 Result	Met the Standard?	Compliance Standard?
Real Loss	16.7	7.9	Yes	Yes
Apparent Loss	11.4	13.4	No	No

Changes for 2023

- Version 6.0 of AWWA Free Water Loss Software
 - Different default values may change the balance between Real Loss and Apparent Loss
 - No flexibility on data validation grading may lower our overall Data Validity Score
- Initial Questionnaires are due for
 - Data Quality
 - Pressure Management

Questions

