CAVANAUGH
Stewardship Through Innovation

AWWA 2020 Water Audit Level 1 Validation – Review Document

Validator Provided

Audit Information:

Utility: Marina Coast Water District PWS ID: 2710017

System Type: Potable Audit Period: Calendar 2020

Utility Representation: Paul Lord, Patrick Breen

Validation Date: 7/28/2021 Call Time: 10:00am Sufficient Supporting Documents Provided: Yes

Validation Findings & Confirmation Statement:

Key Audit Metrics:

Data Validity Score: 69 Data Validity Band (Level): Band III (51-70)

ILI: 0.72 Real Loss: 441.37 (gal/mile-main/day) Apparent Loss: 7.48 (gal/conn/day)

Non-revenue water as percent of cost of operating system: 1.1%

Certification Statement by Validator:

This water loss audit report has been Level 1 validated per the requirements of California Code of Regulations Title 23, Division 2, Chapter 7 and the California Water Code Section 10608.34.

All recommendations on volume derivation and Data Validity Grades were incorporated into the water audit. ☒

Validator Information:

Water Audit Validator: Larry Lewison, Will Jernigan Validator Qualifications: Certified Water Audit Validator (CA)

2020 AWWA Water Audit Level 1 Validation

Water System Name:	Water System ID Number:	Water Audit Period:
Marina Coast Water District	#2710017	Calendar Year 2020

Water Audit & Water Loss Improvement Steps:

Steps taken in preceding 3 years to increase data validity, reduce real loss and apparent loss as informed by the annual validated water audit:

Utility Provided

- 515 previously unmetered residential housing units were metered. All accounts are now metered.
- An adjustment for lag time in customer meter reading data is made each year.
- There is an ongoing, prioritized effort to replace older, failing meter registers.
- A calculation of the net change in distribution storage (between January 1st and December 31st) is made each year.
- A more precise calculation of the number of service connections is now being made.
- Unlike 2018, all production well meters were flow tested in 2019.and 2020
- Complete production well meter testing allowed us to calculate and apply a Master Meter & Supply Error Adjustment to our water production figures.
- Many of our largest, field testable meters over 3" in size are now being flow tested. Poor performing meters are identified for replacement.
- All hydrant flushing is now metered.
- Using data from GIS, a more accurate measurement of distribution system mainline length was obtained.
- A more accurate calculation of Commodity Revenue (capacity charges no longer included in commodity revenue) has resulted in a more accurate calculation of Customer Retail Unit Cost of water for our Ord Community.
- Conducted monthly outreach to local Fire Departments requesting accurate records of unmetered & unbilled water uses
- Updated population calculation in early 2020 to address COVID-19 related student housing vacancies at the local university
- Read and recorded metered yet unbilled operational water uses at the same monthly frequency as billed metered consumption

Certification Statement by Utility Executive:

This water loss audit report meets the requirements of California Code of Regulations Title 23, Division 2, Chapter 7 and the California Water Code Section 10608.34 and has been prepared in accordance with the method adopted by the American Water Works Association, as contained in their manual, *Water Audits and Loss Control Programs, Manual M36, Fourth Edition* and in the Free Water Audit Software version 5.

Executive Name (Print)	Executive Position	Signature	Date
Derek Schwenger	General Manager		9/21/21