CAVANAUGH
Stewardship Through Innovation

Validator Provided

AWWA 2017 Water Audit Level 1 Validation – Review Document

Audit Information:

Utility: Rincon del Diablo Municipal Water District PWS ID: 3710018 (ID-1)

System Type: Potable Audit Period: Calendar 2017

Utility Representation: Clint Baze

Validation Date: 8/30/2018 Call Time: 11:30am Sufficient Supporting Documents Provided: Yes

Validation Findings & Confirmation Statement:

Key Audit Metrics:

Data Validity Score: 65 Data Validity Band (Level): Band III (51-70)

ILI: 0.04 Real Loss: 0.93 (gal/conn/day) Apparent Loss: 3.32 (gal/conn/day)

Non-revenue water as percent of cost of operating system: 0.8%

While this system may experience low levels of loss, the audit metrics after level 1 validation indicates that advanced validation is warranted before conclusions can be made regarding the system's loss performance. At least one of the following scenarios may contribute to this result:

- **Water Supplied (both Own Source and Imported Water) may be understated**. This can occur if supply meters are under-registering more significantly than is currently reflected in the Master Meter Error & Supply Adjustment (MMSEA). This can also occur if the supply volumes include uncorrected inaccuracies in the data archives due to data gaps or SCADA formula errors.
- **Authorized consumption may be overstated.** This can occur if the BMAC input includes any non-potable volumes, duplication of potable volumes, or inclusion of potable volumes from a different system (i.e. ID-A). Level 2 validation on the billing database is recommended.

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: Drew Blackwell, Will Jernigan, P.E. Validator Qualifications: Contractor for California Water Loss TAP

2017 AWWA Water Audit Level 1 Validation

Water System Name: Rincon del Diablo MWD (ID-1) Water System ID Number: 3710018 Water Audit Period: Calendar 2017

Water Audit & Water Loss Improvement Steps:

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

Increased water meter testing frequency. Added additional large meter testing procedures at turn-outs. Increased Capital Improvement Budget for water main replacement and/or rehabilitation projects. Improved customer engagement practices to notify for potential leaks or over irrigation/water consumption.

Utility Provided

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.

Clint R. Baze	Director of Eng & Ops	Clint Baze	9-28-2018
Executive Name (Print)	Executive Position	Signature	Date