American Water Works Association
California-Nevada Section

CA-NV AWWA Water Loss Technical Assistance Program

Wave 4 Water Audit Level 1 Validation Document

Utility Provided

Water System Name: Olivenhain Municipal Water District **Water System ID Number:** 3710029 **Water Audit Period:** Calendar 2016

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:

1) Obtained import meter testing/calibration results. 2) Obtained export meter testing/calibration results. 3) Aligned billing cycle with production and consumption cycle. 4) Included fire hydrant lateral length. 5) Calculated total annual operating cost to include all costs associated with running the potable system, including capital costs. 6) Re-calculated customer retail unit cost by dividing volume based revenue by volume sold.

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.

Joey Randall	Assistant General Manager		9-28-17
Executive Name (Print)	Executive Position	Signature	Date

WSO | CAVANAUGH Stewardship Through Innovation

American Water Works Association
California-Nevada Section

CA-NV AWWA Water Loss Technical Assistance Program

Wave 4 Water Audit Level 1 Validation Document

Validator Provided

Audit Information:

Utility: Olivenhain Municipal Water District PWS ID: 3710029

System Type: Potable Audit Period: Calendar 2016

Utility Representation: Brian Sodeman, Don Hussey, Dan Bean, Dave Smith, Felipe Monasi, John Carnegie, Joey Randall

Validation Date: 9/14/2017 Call Time: 12pm Sufficient Supporting Documents Provided: Yes

Validation Findings & Confirmation Statement:

Key Audit Metrics:

Data Validity Score: 72 Data Validity Band (Level): Band IV (71-90)

ILI: 1.00 Real Loss: 30.19 (gal/conn/day) Apparent Loss: 5.06 (gal/conn/day)

Non-revenue water as percent of cost of operating system: 3.1%

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: William Elman / Kevin Burgers (support) Validator Qualifications: Contractor for CA-NV AWWA Water Loss TAP

WSO

CAVANAUGH
Stewardship Through Innovation