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: North Marin Water District PWS ID: CA2110003

System Type: Potable Audit Period: Calendar 2016

Utility Representation: Robert Clark, Alicia Manzoni, David Ladd

Validation Date: 6/28/2017 Call Time: 1pm Sufficient Supporting Documents Provided: Yes

Validation Findings & Confirmation Statement:

Key Audit Metrics:

Data Validity Score: 67 Data Validity Band (Level): Band III (51-70)

ILI: 1.49 Real Loss: 21.63 (gal/conn/day) Apparent Loss: 7.6 (gal/conn/day)

Non-revenue water as percent of cost of operating system: 5.1%

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

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Water System Name: North Marin Water District **Water System ID Number:** 2110003 **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. Procedures have been put in place to have all import/export meters annually calibrated.
2. As of April 2017, the large SCWA input meters are on radio read.
3. NMWD has begun a trial run of 200 AMI meters, full deployment expected within 18 months.

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.

Drew McIntyre	General Manager		9/29/17
Executive Name (Print)	Executive Position	Signature	Date

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