Level 1 Validation Certificate

WSO

This document verifies that the Level 1 Validation process was completed. The session details and audit review outcomes are included here.

This certificate is required for submission – alongside the Level 1 validated water audit software file – to the California Department of Water Resources.

Call Date: 8/23/2018

Water Supplier

Supplier Name: City of Garden Grove

Supplier Participants:

Les Ruitenschild, Water Distribution Supervisor; CelPasillas, Water Quality Supervisor; Robert Bermudez, Water Production Supervisor; Rebecca Li, Sr. Civil Engineer; Katie Delfin, Sr. Administrative Analyst

Validator

Validator:	Reinhard Sturm, Water Systems Optimization
Validator Qualifications:	Water Audit Validator Certificate from the AWWA California Nevada Section

Key Audit Metrics

Certification Statement by Validator

Data Validity Score:	63	
ILI:	1.47	
Real Loss:	16.87	gal / conn / day
Apparent Loss:	9.07	gal / conn / day
Non-Revenue Water as Percent of Cost of Operating System:	4.7%	

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. ☒

If not, rejected recommendations are included here.

Level 1 Validation – Water Supplier Confirmation

This document confirms participation in and endorsement of the Level 1 Validation as completed.

This acknowledgement is required for submission – alongside your Level 1 validated water audit software file – to the California Department of Water Resources.

Water Supplier Name:	City of Garden Grove
Water Supplier Public Water System ID:	3010062
Water Audit Period:	Calendar Year 2018

Water Audit & Water Loss Improvement Steps

Steps taken in the audit period timeframe to increase data source accuracy, reduce real losses, and/or reduce apparent losses, as informed by the water audit.

Continued to monitor the pilot program of AMI meters for commercial customers. Continued to manually read production meters daily. Will consider pro-rating the first and last months of the audit period to better align consumption with actual dates of use, and using read date as basis for reporting. Will continue making progress on producing itemized, agency-specific estimates of unbilled unmetered uses, rather than using the default. Our agency will also ensure leakage estimates are excluded.

Certification Statement by Water Supplier 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):	Samuel Kim
Executive Position:	Water Services Manager
Signature:	
Date	September 30, 2019