Validator Provided

# Appendix B

## Certified Validation Report Template, Part A: Provided by Validator

**Audit Information:**

Water Supplier Name: City of Chino PWS ID: 3610012

System Type: Potable Audit Period: 1/1/2018 through 12/31/2018

Utility Representation: Pete Vicario

Validation Date: 10/21/19 Call Time: 11 am Sufficient Supporting Documents Provided: yes

**Validation Findings & Confirmation Statement:**

**Key Audit Metrics:**

Data Validity Score: 61 Data Validity Band (Level): III (51-70)

ILI: -0.52 Real Loss: -194.839 AFY Apparent Loss: 209.921 AFY

Non-revenue water as percent of cost of operating system: 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. ☒

*If not, rejected recommendations are included here.*

**Validator Information:**

Water Audit Validator : Amanda Coker Qualifications: Water Audit Validator Certificate issued by the CA-NV Section of the AWWA

# Certified Validation Report Template, Part B: Provided by Utility

Utility Provided

**Water Supplier Name:** City of Chino **Water Supplier ID Number:** 3610012 **Water Audit Period:** CY 2018

**Water Audit & Water Loss Improvement Steps:**

*Utility to provide steps taken in preceding year to increase data validity, reduce real loss and apparent loss as informed by the annual validated water audit:* Apparent losses should be less than water losses. Appears to be a data error most likely in the billed metered field. Utility should confirm the consumptions. reports should be run Jan-Dec or if the report should be offset to Feb-Jan to account for billing dates. Utility should also look into using treatment plant effluent meters for the VOS field and possibly including change in storage.

**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 Audit and Loss Control Programs, Manual M36, Fourth Edition* and in the Free Water Audit Software version 5.

| Executive Name (Print) | Executive Position | Signature | Date |
|---|---|---|---|
| Pete Vicario III | Water Utilities Supervisor | | 11.6.19 |

# AWWA Free Water Audit Software: Reporting Worksheet

v5.0 r5
American Water Works Association
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Click to access definition
Click to add a comment

Water Audit Report for: City of Chino (3610012)
Reporting Year: 2018 1/2018 - 12/2018

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

Master Meter and Supply Error Adjustments

## WATER SUPPLIED

<-------- Enter grading in column 'E' and 'J' -------->

| | | | | | | Pcnt: | Value: | |
|---|---|---|---|---|---|---|---|---|
| Volume from own sources: | 6 | 4,576.380 | acre-ft/yr | | 3 | | 16.940 | acre-ft/yr |
| Water imported: | 8 | 9,401.720 | acre-ft/yr | | | | | acre-ft/yr |
| Water exported: | n/a | 0.000 | acre-ft/yr | | | | | acre-ft/yr |

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: 13,961.160 acre-ft/yr

## AUTHORIZED CONSUMPTION

Click here: for help using option buttons below

| | | | | Pcnt: | Value: | |
|---|---|---|---|---|---|---|
| Billed metered: | 7 | 13,800.000 | acre-ft/yr | | | |
| Billed unmetered: | n/a | 0.000 | acre-ft/yr | | | |
| Unbilled metered: | 7 | 111.300 | acre-ft/yr | | | |
| Unbilled unmetered: | 3 | 34.778 | acre-ft/yr | | 34.778 | acre-ft/yr |

Use buttons to select percentage of water supplied OR value

AUTHORIZED CONSUMPTION: 13,946.078 acre-ft/yr

## WATER LOSSES (Water Supplied - Authorized Consumption)

15.082 acre-ft/yr

### Apparent Losses

| | | | | Pcnt: | Value: | |
|---|---|---|---|---|---|---|
| Unauthorized consumption: | | 34.903 | acre-ft/yr | 0.25% | | acre-ft/yr |

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

| | | | | | | |
|---|---|---|---|---|---|---|
| Customer metering inaccuracies: | 3 | 140.518 | acre-ft/yr | 1.00% | | acre-ft/yr |
| Systematic data handling errors: | | 34.500 | acre-ft/yr | 0.25% | | acre-ft/yr |

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 209.921 acre-ft/yr

Check input values; APPARENT LOSSES should be less than WATER LOSSES

### Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: -194.839 acre-ft/yr

WATER LOSSES: 15.082 acre-ft/yr

## NON-REVENUE WATER

NON-REVENUE WATER: 161.160 acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

## SYSTEM DATA

| | | | |
|---|---|---|---|
| Length of mains: | 5 | 289.0 | miles |
| Number of active AND inactive service connections: | 8 | 20,616 | |
| Service connection density: | | 77 | conn./mile main |

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

| | | | |
|---|---|---|---|
| Average operating pressure: | 8 | 74.0 | psi |

## COST DATA

| | | | |
|---|---|---|---|
| Total annual cost of operating water system: | 10 | $19,271,777 | $/Year |
| Customer retail unit cost (applied to Apparent Losses): | 10 | $2.76 | $/100 cubic feet (ccf) |
| Variable production cost (applied to Real Losses): | 5 | $781.00 | $/acre-ft |

☑ Use Customer Retail Unit Cost to value real losses

## WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 61 out of 100 ***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

## PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Water Imported
2: Volume from own sources
3: Customer metering inaccuracies