

Appendix A: Urban Water Management Planning Act

# Appendix A. California Water Code – Urban Water Management Planning

# This material is for informational purposes only and not to be used in place of official California Water Code (Water Code).

This document presents updated sections of Water Code as of January 1, 2020, as compiled by DWR staff. The selection focuses on the portions of code directly relevant to preparation of the urban water management plan and contextually relevant to urban water suppliers and the Department of Water Resources (DWR). This includes the Urban Water Management Planning Act and the Sustainable Water Use and Demand Reduction (SB X7-7), and more. Further legislative information is available on the California Legislative Information website at

https://leginfo.legislature.ca.gov/.

The following Water Code sections are included in this appendix.

- Sustainable Water Use and Demand Reduction (SB X7-7) Water Code Division 6, Part 2.55
  - Chapter 1. General Declarations and Policy, Sections 10608
     10608.8
  - Chapter 2. Definitions, Section 10608.12
  - Chapter 3. Urban Retail Water Suppliers, Sections 10608.16
     10608.44
  - Chapter 4. Agricultural Water Suppliers, Section 10608.48
  - **Chapter 5. Sustainable Water Management**, Section 10608.50
  - **Chapter 6. Standardized Data Collection**, Section 10608.52
  - Chapter 7. Funding Provisions, Sections 10608.56 10608.60
  - Chapter 8. Quantifying Agricultural Water Use Efficiency, Section 10608.64

### • Urban Water Management Planning Act Water Code Division 6, Part 2.6

- Chapter 1. General Declaration and Policy, Sections 10610 10610.4
- Chapter 2. Definitions, Sections 10611 10618
- Chapter 3. Urban Water Management Plans
   Article 1. General Provisions, Sections 10620 10621
   Article 2. Contents of Plans, Sections 10630 10634
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- Chapter 4. Miscellaneous Provisions, Sections 10650 10657

### PART 2.55. SUSTAINABLE WATER USE AND DEMAND REDUCTION CHAPTER 1. General Declaration and Policy [10608 – 10608.8]

**10608.** The Legislature finds and declares all of the following:

- (a) Water is a public resource that the California Constitution protects against waste and unreasonable use.
- (b) Growing population, climate change, and the need to protect and grow California's economy while protecting and restoring our fish and wildlife habitats make it essential that the state manage its water resources as efficiently as possible.
- (c) Diverse regional water supply portfolios will increase water supply reliability and reduce dependence on the Delta.
- (d) Reduced water use through conservation provides significant energy and environmental benefits, and can help protect water quality, improve streamflows, and reduce greenhouse gas emissions.
- (e) The success of state and local water conservation programs to increase efficiency of water use is best determined on the basis of measurable outcomes related to water use or efficiency.
- (f) Improvements in technology and management practices offer the potential for increasing water efficiency in California over time,

providing an essential water management tool to meet the need for water for urban, agricultural, and environmental uses.

- (g) The Governor has called for a 20 percent per capita reduction in urban water use statewide by 2020.
- (h) The factors used to formulate water use efficiency targets can vary significantly from location to location based on factors including weather, patterns of urban and suburban development, and past efforts to enhance water use efficiency.
- (i) Per capita water use is a valid measure of a water provider's efforts to reduce urban water use within its service area. However, per capita water use is less useful for measuring relative water use efficiency between different water providers. Differences in weather, historical patterns of urban and suburban development, and density of housing in a particular location need to be considered when assessing per capita water use as a measure of efficiency.

**10608.4.** It is the intent of the Legislature, by the enactment of this part, to do all of the following:

- (a) Require all water suppliers to increase the efficiency of use of this essential resource.
- (b) Establish a framework to meet the state targets for urban water conservation identified in this part and called for by the Governor.
- (c) Measure increased efficiency of urban water use on a per capita basis.
- (d) Establish a method or methods for urban retail water suppliers to determine targets for achieving increased water use efficiency by the year 2020, in accordance with the Governor's goal of a 20percent reduction.
- (e) Establish consistent water use efficiency planning and implementation standards for urban water suppliers and agricultural water suppliers.
- (f) Promote urban water conservation standards that are consistent with the California Urban Water Conservation Council's adopted best management practices and the requirements for demand management in Section 10631.

- (g) Establish standards that recognize and provide credit to water suppliers that made substantial capital investments in urban water conservation since the drought of the early 1990s.
- (h) Recognize and account for the investment of urban retail water suppliers in providing recycled water for beneficial uses.
- (i) Require implementation of specified efficient water management practices for agricultural water suppliers.
- (j) Support the economic productivity of California's agricultural, commercial, and industrial sectors.
- (k) Advance regional water resources management.

**10608.8.** (a) (1) Water use efficiency measures adopted and implemented pursuant to this part or Part 2.8 (commencing with Section 10800) are water conservation measures subject to the protections provided under Section 1011.

- (2) Because an urban agency is not required to meet its urban water use target until 2020 pursuant to subdivision (b) of Section 10608.24, an urban retail water supplier's failure to meet those targets shall not establish a violation of law for purposes of any state administrative or judicial proceeding prior to January 1, 2021. Nothing in this paragraph limits the use of data reported to the department or the board in litigation or an administrative proceeding. This paragraph shall become inoperative on January 1, 2021.
- (3) To the extent feasible, the department and the board shall provide for the use of water conservation reports required under this part to meet the requirements of Section 1011 for water conservation reporting.
- (b) This part does not limit or otherwise affect the application of Chapter 3.5 commencing with Section 11340), Chapter 4 (commencing with Section 11370), Chapter 4.5 (commencing with Section 11400), and Chapter 5 (commencing with Section 11500) of Part 1 of Division 3 of Title 2 of the Government Code.
- (c) This part does not require a reduction in the total water used in the agricultural or urban sectors, because other factors, including, but not limited to, changes in agricultural economics or population

growth may have greater effects on water use. This part does not limit the economic productivity of California's agricultural, commercial, or industrial sectors.

(d) The requirements of this part do not apply to an agricultural water supplier that is a party to the Quantification Settlement Agreement, as defined in subdivision (a) of Section 1 of Chapter 617 of the Statutes of 2002, during the period within which the Quantification Settlement Agreement remains in effect. After the expiration of the Quantification Settlement Agreement, to the extent conservation water projects implemented as part of the Quantification Settlement Agreement remain in effect, the conserved water created as part of those projects shall be credited against the obligations of the agricultural water supplier pursuant to this part.

# CHAPTER 2. Definitions [10608.12]

**10608.12.** Unless the context otherwise requires, the following definitions govern the construction of this part:

- (a) "Agricultural water supplier" means a water supplier, either publicly or privately owned, providing water to 10,000 or more irrigated acres, excluding recycled water. "Agricultural water supplier" includes a supplier or contractor for water, regardless of the basis of right, that distributes or sells water for ultimate resale to customers. "Agricultural water supplier" does not include the department.
- (b) "Base daily per capita water use" means any of the following:
  - (1) The urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous 10-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.
  - (2) For an urban retail water supplier that meets at least 10 percent of its 2008 measured retail water demand through recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier, the urban retail water supplier may extend the

calculation described in paragraph (1) up to an additional five years to a maximum of a continuous 15-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.

- (3) For the purposes of Section 10608.22, the urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous five-year period ending no earlier than December 31, 2007, and no later than December 31, 2010.
- (c) "Baseline commercial, industrial, and institutional water use" means an urban retail water supplier's base daily per capita water use for commercial, industrial, and institutional users.
- (d) "CII water use" means water used by commercial water users, industrial water users, institutional water users, and large landscape water users.
- (e) "Commercial water user" means a water user that provides or distributes a product or service.
- (f) "Compliance daily per capita water use" means the gross water use during the final year of the reporting period, reported in gallons per capita per day.
- (g) "Disadvantaged community" means a community with an annual median household income that is less than 80 percent of the statewide annual median household income.
- (h) "Gross water use" means the total volume of water, whether treated or untreated, entering the distribution system of an urban retail water supplier, excluding all of the following:
  - (1) Recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier.
  - (2) The net volume of water that the urban retail water supplier places into long-term storage.
  - (3) The volume of water the urban retail water supplier conveys for use by another urban water supplier.
  - (4) The volume of water delivered for agricultural use, except as otherwise provided in subdivision (f) of Section 10608.24.
- (i) "Industrial water user" means a water user that is primarily a

manufacturer or processor of materials as defined by the North American Industry Classification System code sectors 31 to 33, inclusive, or an entity that is a water user primarily engaged in research and development.

- (j) "Institutional water user" means a water user dedicated to public service. This type of user includes, among other users, higher education institutions, schools, courts, churches, hospitals, government facilities, and nonprofit research institutions.
- (k) "Interim urban water use target" means the midpoint between the urban retail water supplier's base daily per capita water use and the urban retail water supplier's urban water use target for 2020.
- (I) "Large landscape" means a nonresidential landscape as described in the performance measures for CII water use adopted pursuant to Section 10609.10.
- (m) "Locally cost effective" means that the present value of the local benefits of implementing an agricultural efficiency water management practice is greater than or equal to the present value of the local cost of implementing that measure.
- (n) "Performance measures" means actions to be taken by urban retail water suppliers that will result in increased water use efficiency by CII water users. Performance measures may include, but are not limited to, educating CII water users on best management practices, conducting water use audits, and preparing water management plans. Performance measures do not include process water.
- (o) "Potable reuse" means direct potable reuse, indirect potable reuse for groundwater recharge, and reservoir water augmentation as those terms are defined in Section 13561.
- (p) "Process water" means water used by industrial water users for producing a product or product content or water used for research and development. Process water includes, but is not limited to, continuous manufacturing processes, and water used for testing, cleaning, and maintaining equipment. Water used to cool machinery or buildings used in the manufacturing process or necessary to maintain product quality or chemical characteristics for product manufacturing or control rooms, data centers, laboratories, clean rooms, and other industrial facility units that

are integral to the manufacturing or research and development process is process water. Water used in the manufacturing process that is necessary for complying with local, state, and federal health and safety laws, and is not incidental water, is process water. Process water does not mean incidental water uses.

- (q) "Recycled water" means recycled water, as defined in subdivision(n) of Section 13050.
- (r) "Regional water resources management" means sources of supply resulting from watershed-based planning for sustainable local water reliability or any of the following alternative sources of water:
  - (1) The capture and reuse of stormwater or rainwater.
  - (2) The use of recycled water.
  - (3) The desalination of brackish groundwater.
  - (4) The conjunctive use of surface water and groundwater in a manner that is consistent with the safe yield of the groundwater basin.
- (s) "Reporting period" means the years for which an urban retail water supplier reports compliance with the urban water use targets.
- (t) "Urban retail water supplier" means a water supplier, either publicly or privately owned, that directly provides potable municipal water to more than 3,000 end users or that supplies more than 3,000 acre-feet of potable water annually at retail for municipal purposes.
- (u) "Urban water use objective" means an estimate of aggregate efficient water use for the previous year based on adopted water use efficiency standards and local service area characteristics for that year, as described in Section 10609.20.
- (v) "Urban water use target" means the urban retail water supplier's targeted future daily per capita water use.
- (w) "Urban wholesale water supplier" means a water supplier, either publicly or privately owned, that provides more than 3,000 acrefeet of water annually at wholesale for potable municipal purposes.

#### CHAPTER 3. Urban Retail Water Suppliers [10608.16 - 10608.44]

**10608.16.** (a) The state shall achieve a 20-percent reduction in urban per capita water use in California on or before December 31, 2020.

 The state shall make incremental progress towards the state target specified in subdivision (a) by reducing urban per capita water use by at least 10 percent on or before December 31, 2015.

**10608.20.** (a) (1) Each urban retail water supplier shall develop urban water use targets and an interim urban water use target by July 1, 2011. Urban retail water suppliers may elect to determine and report progress toward achieving these targets on an individual or regional basis, as provided in subdivision (a) of Section 10608.28, and may determine the targets on a fiscal year or calendar year basis.

- (2) It is the intent of the Legislature that the urban water use targets described in paragraph (1) cumulatively result in a 20-percent reduction from the baseline daily per capita water use by December 31, 2020.
- (b) An urban retail water supplier shall adopt one of the following methods for determining its urban water use target pursuant to subdivision (a):
  - (1) Eighty percent of the urban retail water supplier's baseline per capita daily water use.
  - (2) The per capita daily water use that is estimated using the sum of the following performance standards:
    - (A) For indoor residential water use, 55 gallons per capita daily water use as a provisional standard. Upon completion of the department's 2017 report to the Legislature pursuant to Section 10608.42, this standard may be adjusted by the Legislature by statute.
    - (B) For landscape irrigated through dedicated or residential meters or connections, water efficiency equivalent to the standards of the Model Water Efficient Landscape Ordinance set forth in Chapter 2.7 (commencing with Section 490) of Division 2 of Title 23 of the California Code of Regulations, as in effect the later of the year of the landscape's installation or 1992. An urban retail

water supplier using the approach specified in this subparagraph shall use satellite imagery, site visits, or other best available technology to develop an accurate estimate of landscaped areas.

- (C) For commercial, industrial, and institutional uses, a 10percent reduction in water use from the baseline commercial, industrial, and institutional water use by 2020.
- (3) Ninety-five percent of the applicable state hydrologic region target, as set forth in the state's draft 20x2020 Water Conservation Plan (dated April 30, 2009). If the service area of an urban water supplier includes more than one hydrologic region, the supplier shall apportion its service area to each region based on population or area.
- (4) A method that shall be identified and developed by the department, through a public process, and reported to the Legislature no later than December 31, 2010. The method developed by the department shall identify per capita targets that cumulatively result in a statewide 20-percent reduction in urban daily per capita water use by December 31, 2020. In developing urban daily per capita water use targets, the department shall do all of the following:
  - (A) Consider climatic differences within the state.
  - (B) Consider population density differences within the state.
  - (C) Provide flexibility to communities and regions in meeting the targets.
  - (D) Consider different levels of per capita water use according to plant water needs in different regions.
  - (E) Consider different levels of commercial, industrial, and institutional water use in different regions of the state.
  - (F) Avoid placing an undue hardship on communities that have implemented conservation measures or taken actions to keep per capita water use low.

(c) If the department adopts a regulation pursuant to paragraph (4) of

subdivision (b) that results in a requirement that an urban retail water supplier achieve a reduction in daily per capita water use that is greater than 20 percent by December 31, 2020, an urban retail water supplier that adopted the method described in paragraph (4) of subdivision (b) may limit its urban water use target to a reduction of not more than 20 percent by December 31, 2020, by adopting the method described in paragraph (1) of subdivision (b).

- (d) The department shall update the method described in paragraph (4) of subdivision (b) and report to the Legislature by December 31, 2014. An urban retail water supplier that adopted the method described in paragraph (4) of subdivision (b) may adopt a new urban daily per capita water use target pursuant to this updated method.
- (e) An urban retail water supplier shall include in its urban water management plan due in 2010 pursuant to Part 2.6 (commencing with Section 10610) the baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.
- (f) When calculating per capita values for the purposes of this chapter, an urban retail water supplier shall determine population using federal, state, and local population reports and projections.
- (g) An urban retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan required pursuant to Part 2.6 (commencing with Section 10610).
- (h) (1) The department, through a public process and in consultation with the California Urban Water Conservation Council, shall develop technical methodologies and criteria for the consistent implementation of this part, including, but not limited to, both of the following:
  - (A) Methodologies for calculating base daily per capita water use, baseline commercial, industrial, and institutional water use, compliance daily per capita water use, gross water use, service area population, indoor residential water use, and landscaped area water use.

- (B) Criteria for adjustments pursuant to subdivisions (d) and (e) of Section 10608.24.
- (2) The department shall post the methodologies and criteria developed pursuant to this subdivision on its internet website, and make written copies available, by October 1, 2010. An urban retail water supplier shall use the methods developed by the department in compliance with this part.
- (i) (1) The department shall adopt regulations for implementation of the provisions relating to process water in accordance with Section 10608.12, subdivision (e) of Section 10608.24, and subdivision (d) of Section 10608.26.
  - (2) The initial adoption of a regulation authorized by this subdivision is deemed to address an emergency, for purposes of Sections 11346.1 and 11349.6 of the Government Code, and the department is hereby exempted for that purpose from the requirements of subdivision (b) of Section 11346.1 of the Government Code. After the initial adoption of an emergency regulation pursuant to this subdivision, the department shall not request approval from the Office of Administrative Law to readopt the regulation as an emergency regulation pursuant to Section 11346.1 of the Government Code.
- (j) (1) An urban retail water supplier is granted an extension to July 1, 2011, for adoption of an urban water management plan pursuant to Part 2.6 (commencing with Section 10610) due in 2010 to allow the use of technical methodologies developed by the department pursuant to paragraph (4) of subdivision (b) and subdivision (h). An urban retail water supplier that adopts an urban water management plan due in 2010 that does not use the methodologies developed by the department to subdivision (h) shall amend the plan by July 1, 2011, to comply with this part.
  - (2) An urban wholesale water supplier whose urban water management plan prepared pursuant to Part 2.6 (commencing with Section 10610) was due and not submitted in 2010 is granted an extension to July 1, 2011, to permit coordination between an urban wholesale water

supplier and urban retail water suppliers.

**10608.22.** Notwithstanding the method adopted by an urban retail water supplier pursuant to Section 10608.20, an urban retail water supplier's per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use as defined in paragraph (3) of subdivision (b) of Section 10608.12. This section does not apply to an urban retail water supplier with a base daily per capita water use at or below 100 gallons per capita per day.

**10608.24.** (a) Each urban retail water supplier shall meet its interim urban water use target by December 31, 2015.

- (b) Each urban retail water supplier shall meet its urban water use target by December 31, 2020.
- (c) An urban retail water supplier's compliance daily per capita water use shall be the measure of progress toward achievement of its urban water use target.
- (d) (1) When determining compliance daily per capita water use, an urban retail water supplier may consider the following factors:
  - (A) Differences in evapotranspiration and rainfall in the baseline period compared to the compliance reporting period.
  - (B) Substantial changes to commercial or industrial water use resulting from increased business output and economic development that have occurred during the reporting period.
  - (C) Substantial changes to institutional water use resulting from fire suppression services or other extraordinary events, or from new or expanded operations, that have occurred during the reporting period.
  - (2) If the urban retail water supplier elects to adjust its estimate of compliance daily per capita water use due to one or more of the factors described in paragraph (1), it shall provide the basis for, and data supporting, the adjustment in the report required by Section 10608.40.
- (e) When developing the urban water use target pursuant to Section 10608.20, an urban retail water supplier that has a substantial

percentage of industrial water use in its service area may exclude process water from the calculation of gross water use to avoid a disproportionate burden on another customer sector.

- (f) (1) An urban retail water supplier that includes agricultural water use in an urban water management plan pursuant to Part 2.6 (commencing with Section 10610) may include the agricultural water use in determining gross water use. An urban retail water supplier that includes agricultural water use in determining gross water use and develops its urban water use target pursuant to paragraph (2) of subdivision (b) of Section 10608.20 shall use a water efficient standard for agricultural irrigation of 100 percent of reference evapotranspiration multiplied by the crop coefficient for irrigated acres.
  - (2) An urban retail water supplier, that is also an agricultural water supplier, is not subject to the requirements of Chapter 4 (commencing with Section 10608.48), if the agricultural water use is incorporated into its urban water use target pursuant to paragraph (1).

**10608.26**. (a) In complying with this part, an urban retail water supplier shall conduct at least one public hearing to accomplish all of the following:

- (1) Allow community input regarding the urban retail water supplier's implementation plan for complying with this part.
- (2) Consider the economic impacts of the urban retail water supplier's implementation plan for complying with this part.
- (3) Adopt a method, pursuant to subdivision (b) of Section 10608.20, for determining its urban water use target.
- (b) In complying with this part, an urban retail water supplier may meet its urban water use target through efficiency improvements in any combination among its customer sectors. An urban retail water supplier shall avoid placing a disproportionate burden on any customer sector.
- (c) For an urban retail water supplier that supplies water to a United States Department of Defense military installation, the urban retail water supplier's implementation plan for complying with this part shall consider the conservation of that military installation under

federal Executive Order 13514.

- (d) (1) Any ordinance or resolution adopted by an urban retail water supplier after the effective date of this section shall not require existing customers as of the effective date of this section, to undertake changes in product formulation, operations, or equipment that would reduce process water use, but may provide technical assistance and financial incentives to those customers to implement efficiency measures for process water. This section shall not limit an ordinance or resolution adopted pursuant to a declaration of drought emergency by an urban retail water supplier.
  - (2) This part shall not be construed or enforced so as to interfere with the requirements of Chapter 4 (commencing with Section 113980) to Chapter 13 (commencing with Section 114380), inclusive, of Part 7 of Division 104 of the Health and Safety Code, or any requirement or standard for the protection of public health, public safety, or worker safety established by federal, state, or local government or recommended by recognized standard setting organizations or trade associations.

**10608.28.** (a) An urban retail water supplier may meet its urban water use target within its retail service area, or through mutual agreement, by any of the following:

- (1) Through an urban wholesale water supplier.
- (2) Through a regional agency authorized to plan and implement water conservation, including, but not limited to, an agency established under the Bay Area Water Supply and Conservation Agency Act (Division 31 (commencing with Section 81300)).
- (3) Through a regional water management group as defined in Section 10537.
- (4) By an integrated regional water management funding area.
- (5) By hydrologic region.
- (6) Through other appropriate geographic scales for which computation methods have been developed by the

department.

(b) A regional water management group, with the written consent of its member agencies, may undertake any or all planning, reporting, and implementation functions under this chapter for the member agencies that consent to those activities. Any data or reports shall provide information both for the regional water management group and separately for each consenting urban retail water supplier and urban wholesale water supplier.

**10608.32.** All costs incurred pursuant to this part by a water utility regulated by the Public Utilities Commission may be recoverable in rates subject to review and approval by the Public Utilities Commission, and may be recorded in a memorandum account and reviewed for reasonableness by the Public Utilities Commission.

**10608.34.** (a) (1) On or before January 1, 2017, the department shall adopt rules for all of the following:

- (A) The conduct of standardized water loss audits by urban retail water suppliers in accordance with the method adopted by the American Water Works Association in the third edition of Water Audits and Loss Control Programs, Manual M36 and in the Free Water Audit Software, version 5.0.
- (B) The process for validating a water loss audit report prior to submitting the report to the department. For the purposes of this section, "validating" is a process whereby an urban retail water supplier uses a technical expert to confirm the basis of all data entries in the urban retail water supplier's water loss audit report and to appropriately characterize the quality of the reported data. The validation process shall follow the principles and terminology laid out by the American Water Works Association in the third edition of Water Audits and Loss Control Programs, Manual M36 and in the Free Water Audit Software, version 5.0. A validated water loss audit report shall include the name and technical qualifications of the person engaged for validation.
- (C) The technical qualifications required of a person to

engage in validation, as described in subparagraph (B).

- (D) The certification requirements for a person selected by an urban retail water supplier to provide validation of its own water loss audit report.
- (E) The method of submitting a water loss audit report to the department.
- (2) The department shall update rules adopted pursuant to paragraph (1) no later than six months after the release of subsequent editions of the American Water Works Association's Water Audits and Loss Control Programs, Manual M36. Except as provided by the department, until the department adopts updated rules pursuant to this paragraph, an urban retail water supplier may rely upon a subsequent edition of the American Water Works Association's Water Audits and Loss Control Programs, Manual M36 or the Free Water Audit Software.
- (b) (1) On or before October 1 of each year until October 1, 2023, each urban retail water supplier reporting on a calendar year basis shall submit a completed and validated water loss audit report for the previous calendar year or the previous fiscal year as prescribed by the department pursuant to subdivision (a).
  - (2) On or before January 1 of each year until January 1, 2024, each urban retail water supplier reporting on a fiscal year basis shall submit a completed and validated water loss audit report for the previous fiscal year as prescribed by the department pursuant to subdivision (a).
  - (3) On or before January 1, 2024, and on or before January 1 of each year thereafter, each urban retail water supplier shall submit a completed and validated water loss audit report for the previous calendar year or previous fiscal year as part of the report submitted to the department pursuant to subdivision (a) of Section 10609.24 and as prescribed by the department pursuant to subdivision (a).
  - (4) Water loss audit reports submitted on or before October 1, 2017, may be completed and validated with assistance as described in subdivision (c).

- (c) Using funds available for the 2016–17 fiscal year, the board shall contribute up to four hundred thousand dollars (\$400,000) towards procuring water loss audit report validation assistance for urban retail water suppliers.
- (d) Each water loss audit report submitted to the department shall be accompanied by information, in a form specified by the department, identifying steps taken in the preceding year to increase the validity of data entered into the final audit, reduce the volume of apparent losses, and reduce the volume of real losses.
- (e) At least one of the following employees of an urban retail water supplier shall attest to each water loss audit report submitted to the department:
  - (1) The chief financial officer.
  - (2) The chief engineer.
  - (3) The general manager.
- (f) The department shall deem incomplete and return to the urban retail water supplier any final water loss audit report found by the department to be incomplete, not validated, unattested, or incongruent with known characteristics of water system operations. A water supplier shall resubmit a completed water loss audit report within 90 days of an audit being returned by the department.
- (g) The department shall post all validated water loss audit reports on its internet website in a manner that allows for comparisons across water suppliers. The department shall make the validated water loss audit reports available for public viewing in a timely manner after their receipt.
- (h) Using available funds, the department shall provide technical assistance to guide urban retail water suppliers' water loss detection programs, including, but not limited to, metering techniques, pressure management techniques, condition-based assessment techniques for transmission and distribution pipelines, and utilization of portable and permanent water loss detection devices.
- No earlier than January 1, 2019, and no later than July 1, 2020, the board shall adopt rules requiring urban retail water suppliers to meet performance standards for the volume of water losses. In

adopting these rules, the board shall employ full life-cycle cost accounting to evaluate the costs of meeting the performance standards. The board may consider establishing a minimum allowable water loss threshold that, if reached and maintained by an urban water supplier, would exempt the urban water supplier from further water loss reduction requirements.

**10608.35.** (a) The department, in coordination with the board, shall conduct necessary studies and investigations and make a recommendation to the Legislature, by January 1, 2020, on the feasibility of developing and enacting water loss reporting requirements for urban wholesale water suppliers.

- (b) The studies and investigations shall include an evaluation of the suitability of applying the processes and requirements of Section 10608.34 to urban wholesale water suppliers.
- (c) In conducting necessary studies and investigations and developing its recommendation, the department shall solicit broad public participation from stakeholders and other interested persons.

**10608.36.** Urban wholesale water suppliers shall include in the urban water management plans required pursuant to Part 2.6 (commencing with Section 10610) an assessment of their present and proposed future measures, programs, and policies to help achieve the water use reductions required by this part.

**10608.40.** Urban water retail suppliers shall report to the department on their progress in meeting their urban water use targets as part of their urban water management plans submitted pursuant to Section 10631. The data shall be reported using a standardized form developed pursuant to Section 10608.52.

**10608.42.** (a) The department shall review the 2015 urban water management plans and report to the Legislature by July 1, 2017, on progress towards achieving a 20-percent reduction in urban water use by December 31, 2020. The report shall include recommendations on changes to water efficiency standards or urban water use targets to achieve the 20-percent reduction and to reflect updated efficiency information and technology changes.

(b) A report to be submitted pursuant to subdivision (a) shall be submitted in compliance with Section 9795 of the Government Code.

**10608.43.** The department, in conjunction with the California Urban Water Conservation Council, by April 1, 2010, shall convene a representative task force consisting of academic experts, urban retail water suppliers, environmental organizations, commercial water users, industrial water users, and institutional water users to develop alternative best management practices for commercial, industrial, and institutional users and an assessment of the potential statewide water use efficiency improvement in the commercial, industrial, and institutional sectors that would result from implementation of these best management practices. The taskforce, in conjunction with the department, shall submit a report to the Legislature by April 1, 2012, that shall include a review of multiple sectors within commercial, industrial, and institutional users and that shall recommend water use efficiency standards for commercial, industrial, and institutional users among various sectors of water use. The report shall include, but not be limited to, the following:

- (a) Appropriate metrics for evaluating commercial, industrial, and institutional water use.
- (b) Evaluation of water demands for manufacturing processes, goods, and cooling.
- (c) Evaluation of public infrastructure necessary for delivery of recycled water to the commercial, industrial, and institutional sectors.
- (d) Evaluation of institutional and economic barriers to increased recycled water use within the commercial, industrial, and institutional sectors.
- (e) Identification of technical feasibility and cost of the best management practices to achieve more efficient water use statewide in the commercial, industrial, and institutional sectors that is consistent with the public interest and reflects past investments in water use efficiency.

**10608.44.** Each state agency shall reduce water use at facilities it operates to support urban retail water suppliers in meeting the target identified in

Section 10608.16.

#### CHAPTER 4. Agricultural Water Suppliers [10608.48]

**10608.48.** (a) On or before July 31, 2012, an agricultural water supplier shall implement efficient water management practices pursuant to subdivisions (b) and (c).

- (b) Agricultural water suppliers shall implement both of the following critical efficient management practices:
  - Measure the volume of water delivered to customers with sufficient accuracy to comply with subdivision (a) of Section 531.10 and to implement paragraph (2).
  - (2) Adopt a pricing structure for water customers based at least in part on quantity delivered.
- (c) Agricultural water suppliers shall implement additional efficient management practices, including, but not limited to, practices to accomplish all of the following, if the measures are locally cost effective and technically feasible:
  - (1) Facilitate alternative land use for lands with exceptionally high water duties or whose irrigation contributes to significant problems, including drainage.
  - (2) Facilitate use of available recycled water that otherwise would not be used beneficially, meets all health and safety criteria, and does not harm crops or soils.
  - (3) Facilitate the financing of capital improvements for on-farm irrigation systems.
  - (4) Implement an incentive pricing structure that promotes one or more of the following goals:
    - (A) More efficient water use at the farm level.
    - (B) Conjunctive use of groundwater.
    - (C) Appropriate increase of groundwater recharge.
    - (D) Reduction in problem drainage.

- (E) Improved management of environmental resources.
- (F) Effective management of all water sources throughout the year by adjusting seasonal pricing structures based on current conditions.
- (5) Expand line or pipe distribution systems, and construct regulatory reservoirs to increase distribution system flexibility and capacity, decrease maintenance, and reduce seepage.
- (6) Increase flexibility in water ordering by, and delivery to, water customers within operational limits.
- (7) Construct and operate supplier spill and tailwater recovery systems.
- (8) Increase planned conjunctive use of surface water and groundwater within the supplier service area.
- (9) Automate canal control structures.
- (10) Facilitate or promote customer pump testing and evaluation.
- (11) Designate a water conservation coordinator who will develop and implement the water management plan and prepare progress reports.
- (12) Provide for the availability of water management services to water users. These services may include, but are not limited to, all of the following:
  - (A) On-farm irrigation and drainage system evaluations.
  - (B) Normal year and real-time irrigation scheduling and crop evapotranspiration information.
  - (C) Surface water, groundwater, and drainage water quantity and quality data.
  - (D) Agricultural water management educational programs and materials for farmers, staff, and the public.
- (13) Evaluate the policies of agencies that provide the supplier with water to identify the potential for institutional changes to allow more flexible water deliveries and storage.
- (14) Evaluate and improve the efficiencies of the supplier's

pumps.

- (d) Agricultural water suppliers shall include in the agricultural water management plans required pursuant to Part 2.8 (commencing with Section 10800) a report on which efficient water management practices have been implemented and are planned to be implemented, an estimate of the water use efficiency improvements that have occurred since the last report, and an estimate of the water use efficiency improvements estimated to occur five and 10 years in the future. If an agricultural water supplier determines that an efficient water management practice is not locally cost effective or technically feasible, the supplier shall submit information documenting that determination.
- (e) The department shall require information about the implementation of efficient water management practices to be reported using a standardized form developed pursuant to Section 10608.52. (f) An agricultural water supplier may meet the requirements of subdivisions (d) and (e) by submitting to the department a water conservation plan submitted to the United States Bureau of Reclamation that meets the requirements described in Section 10828.
- (f) On or before December 31, 2013, December 31, 2016, and December 31, 2021, the department, in consultation with the board, shall submit to the Legislature a report on the agricultural efficient water management practices that have been implemented and are planned to be implemented and an assessment of the manner in which the implementation of those efficient water management practices has affected and will affect agricultural operations, including estimated water use efficiency improvements, if any.
- (g) The department may update the efficient water management practices required pursuant to subdivision (c), in consultation with the Agricultural Water Management Council, the United States Bureau of Reclamation, and the board. All efficient water management practices for agricultural water use pursuant to this chapter shall be adopted or revised by the department only after the department conducts public hearings to allow participation of the diverse geographical areas and interests of the state.

- (h) (1) The department shall adopt regulations that provide for a range of options that agricultural water suppliers may use or implement to comply with the measurement requirement in paragraph (1) of subdivision (b).
  - (2) The initial adoption of a regulation authorized by this subdivision is deemed to address an emergency, for purposes of Sections 11346.1 and 11349.6 of the Government Code, and the department is hereby exempted for that purpose from the requirements of subdivision (b) of Section 11346.1 of the Government Code. After the initial adoption of an emergency regulation pursuant to this subdivision, the department shall not request approval from the Office of Administrative Law to readopt the regulation as an emergency regulation pursuant to Section 11346.1 of the Government Code.

## CHAPTER 5. Sustainable Water Management [10608.50]

**10608.50.** (a) The department, in consultation with the board, shall promote implementation of regional water resources management practices through increased incentives and removal of barriers consistent with state and federal law. Potential changes may include, but are not limited to, all of the following:

- (1) Revisions to the requirements for urban and agricultural water management plans.
- (2) Revisions to the requirements for integrated regional water management plans.
- (3) Revisions to the eligibility for state water management grants and loans.
- (4) Revisions to state or local permitting requirements that increase water supply opportunities, but do not weaken water quality protection under state and federal law.
- (5) Increased funding for research, feasibility studies, and project construction.
- (6) Expanding technical and educational support for local land use and water management agencies.

(b) No later than January 1, 2011, and updated as part of the California Water Plan, the department, in consultation with the board, and with public input, shall propose new statewide targets, or review and update existing statewide targets, for regional water resources management practices, including, but not limited to, recycled water, brackish groundwater desalination, and infiltration and direct use of urban stormwater runoff.

#### CHAPTER 6. Standardized Data Collection [10608.52]

**10608.52.** (a) The department, in consultation with the board, the California Bay-Delta Authority or its successor agency, the State Department of Public Health, and the Public Utilities Commission, shall develop a single standardized water use reporting form to meet the water use information needs of each agency, including the needs of urban water suppliers that elect to determine and report progress toward achieving targets on a regional basis as provided in subdivision (a) of Section 10608.28.

(b) At a minimum, the form shall be developed to accommodate information sufficient to assess an urban water supplier's compliance with conservation targets pursuant to Section 10608.24 and an agricultural water supplier's compliance with implementation of efficient water management practices pursuant to subdivision (a) of Section 10608.48. The form shall accommodate reporting by urban water suppliers on an individual or regional basis as provided in subdivision (a) of Section 10608.28.

#### CHAPTER 7. Funding Provisions [10608.56 – 10608.60]

**10608.56.** (a) On and after July 1, 2016, an urban retail water supplier is not eligible for a water grant or loan awarded or administered by the state unless the supplier complies with this part.

- (b) On and after July 1, 2013, an agricultural water supplier is not eligible for a water grant or loan awarded or administered by the state unless the supplier complies with this part.
- (c) Notwithstanding subdivision (a), the department shall determine that an urban retail water supplier is eligible for a water grant or loan even though the supplier has not met the per capita

reductions required pursuant to Section 10608.24, if the urban retail water supplier has submitted to the department for approval a schedule, financing plan, and budget, to be included in the grant or loan agreement, for achieving the per capita reductions. The supplier may request grant or loan funds to achieve the per capita reductions to the extent the request is consistent with the eligibility requirements applicable to the water funds.

- (d) Notwithstanding subdivision (b), the department shall determine that an agricultural water supplier is eligible for a water grant or loan even though the supplier is not implementing all of the efficient water management practices described in Section 10608.48, if the agricultural water supplier has submitted to the department for approval a schedule, financing plan, and budget, to be included in the grant or loan agreement, for implementation of the efficient water management practices. The supplier may request grant or loan funds to implement the efficient water management practices to the extent the request is consistent with the eligibility requirements applicable to the water funds.
- (e) Notwithstanding subdivision (a), the department shall determine that an urban retail water supplier is eligible for a water grant or loan even though the supplier has not met the per capita reductions required pursuant to Section 10608.24, if the urban retail water supplier has submitted to the department for approval documentation demonstrating that its entire service area qualifies as a disadvantaged community.
- (f) The department shall not deny eligibility to an urban retail water supplier or agricultural water supplier in compliance with the requirements of this part and Part 2.8 (commencing with Section 10800), that is participating in a multiagency water project, or an integrated regional water management plan, developed pursuant to Section 75026 of the Public Resources Code, solely on the basis that one or more of the agencies participating in the project or plan is not implementing all of the requirements of this part or Part 2.8 (commencing with Section 10800).

**10608.60.** (a) It is the intent of the Legislature that funds made available by Section 75026 of the Public Resources Code should be expended, consistent with Division 43 (commencing with Section 75001) of the Public

Resources Code and upon appropriation by the Legislature, for grants to implement this part. In the allocation of funding, it is the intent of the Legislature that the department give consideration to disadvantaged communities to assist in implementing the requirements of this part.

(b) It is the intent of the Legislature that funds made available by Section 75041 of the Public Resources Code, should be expended, consistent with Division 43 (commencing with Section 75001) of the Public Resources Code and upon appropriation by the Legislature, for direct expenditures to implement this part.

## CHAPTER 8. Quantifying Agricultural Water Use Efficiency [10608.64]

**10608.64**. The department, in consultation with the Agricultural Water Management Council, academic experts, and other stakeholders, shall develop a methodology for quantifying the efficiency of agricultural water use. Alternatives to be assessed shall include, but not be limited to, determination of efficiency levels based on crop type or irrigation system distribution uniformity. On or before December 31, 2011, the department shall report to the Legislature on a proposed methodology and a plan for implementation. The plan shall include the estimated implementation costs and the types of data needed to support the methodology. Nothing in this section authorizes the department to implement a methodology established pursuant to this section.

# PART 2.55. SUSTAINABLE WATER USE AND DEMAND REDUCTION [10608 - 10609.42]

# CHAPTER 9. Urban Water Use Objectives and Water Use Reporting [10609 – 10609.38]

**10609.** (a) The Legislature finds and declares that this chapter establishes a method to estimate the aggregate amount of water that would have been delivered the previous year by an urban retail water supplier if all that water had been used efficiently. This estimated aggregate water use is the urban retail water supplier's urban water use objective. The method is based on water use efficiency standards and local service area characteristics for that year. By comparing the amount of water actually used in the previous year with the urban water use objective, local urban water suppliers will be in a better position to help eliminate unnecessary use of water; that is, water used in excess of that needed to accomplish the intended beneficial use.

- (b) The Legislature further finds and declares all of the following:
  - (1) This chapter establishes standards and practices for the following water uses:
    - (A) Indoor residential use.
    - (B) Outdoor residential use.
    - (C) CII water use.
    - (D) Water losses.
    - (E) Other unique local uses and situations that can have a material effect on an urban water supplier's total water use.
  - (2) This chapter further does all of the following:
    - (A) Establishes a method to calculate each urban water use objective.
    - (B) Considers recycled water quality in establishing efficient irrigation standards.
    - (C) Requires the department to provide or otherwise identify data regarding the unique local conditions to support the calculation of an urban water use objective.
    - (D) Provides for the use of alternative sources of data if alternative sources are shown to be as accurate as, or more accurate than, the data provided by the department.
    - (E) Requires annual reporting of the previous year's water use with the urban water use objective.
    - (F) Provides a bonus incentive for the amount of potable recycled water used the previous year when comparing the previous year's water use with the urban water use objective, of up to 10 percent of the urban water use objective.
  - (3) This chapter requires the department and the board to solicit broad public participation from stakeholders and other interested persons in the development of the standards and the adoption of regulations pursuant to this chapter.

- (4) This chapter preserves the Legislature's authority over longterm water use efficiency target setting and ensures appropriate legislative oversight of the implementation of this chapter by doing all of the following:
  - (A) Requiring the Legislative Analyst to conduct a review of the implementation of this chapter, including compliance with the adopted standards and regulations, accuracy of the data, use of alternate data, and other issues the Legislative Analyst deems appropriate.
  - (B) Stating legislative intent that the director of the department and the chairperson of the board appear before the appropriate Senate and Assembly policy committees to report on progress in implementing this chapter.
  - (C) Providing one-time-only authority to the department and board to adopt water use efficiency standards, except as explicitly provided in this chapter. Authorization to update the standards shall require separate legislation.
- (c) It is the intent of the Legislature that the following principles apply to the development and implementation of long-term standards and urban water use objectives:
  - (1) Local urban retail water suppliers should have primary responsibility for meeting standards-based water use targets, and they shall retain the flexibility to develop their water supply portfolios, design and implement water conservation strategies, educate their customers, and enforce their rules.
  - (2) Long-term standards and urban water use objectives should advance the state's goals to mitigate and adapt to climate change.
  - (3) Long-term standards and urban water use objectives should acknowledge the shade, air quality, and heat-island reduction benefits provided to communities by trees through the support of water-efficient irrigation practices that keep trees healthy.

(4) The state should identify opportunities for streamlined reporting, eliminate redundant data submissions, and incentivize open access to data collected by urban and agricultural water suppliers.

**10609.2.** (a) The board, in coordination with the department, shall adopt long-term standards for the efficient use of water pursuant to this chapter on or before June 30, 2022.

- (b) Standards shall be adopted for all of the following:
  - (1) Outdoor residential water use.
  - (2) Outdoor irrigation of landscape areas with dedicated irrigation meters in connection with CII water use.
  - (3) A volume for water loss.
- (c) When adopting the standards under this section, the board shall consider the policies of this chapter and the proposed efficiency standards' effects on local wastewater management, developed and natural parklands, and urban tree health. The standards and potential effects shall be identified by May 30, 2022. The board shall allow for public comment on potential effects identified by the board under this subdivision.
- (d) The long-term standards shall be set at a level designed so that the water use objectives, together with other demands excluded from the long-term standards such as CII indoor water use and CII outdoor water use not connected to a dedicated landscape meter, would exceed the statewide conservation targets required pursuant to Chapter 3 (commencing with Section 10608.16).
- (e) The board, in coordination with the department, shall adopt by regulation variances recommended by the department pursuant to Section 10609.14 and guidelines and methodologies pertaining to the calculation of an urban retail water supplier's urban water use objective recommended by the department pursuant to Section 10609.16.

**10609.4.** (a) (1) Until January 1, 2025, the standard for indoor residential water use shall be 55 gallons per capita daily.

(2) Beginning January 1, 2025, and until January 1, 2030, the

standard for indoor residential water use shall be the greater of 52.5 gallons per capita daily or a standard recommended pursuant to subdivision (b).

- (3) Beginning January 1, 2030, the standard for indoor residential water use shall be the greater of 50 gallons per capita daily or a standard recommended pursuant to subdivision (b).
- (b) (1) The department, in coordination with the board, shall conduct necessary studies and investigations and may jointly recommend to the Legislature a standard for indoor residential water use that more appropriately reflects best practices for indoor residential water use than the standard described in subdivision (a). A report on the results of the studies and investigations shall be made to the chairpersons of the relevant policy committees of each house of the Legislature by January 1, 2021, and shall include information necessary to support the recommended standard, if there is one. The studies and investigations shall also include an analysis of the benefits and impacts of how the changing standard for indoor residential water use will impact water and wastewater management, including potable water usage, wastewater, recycling and reuse systems, infrastructure, operations, and supplies.
  - (2) The studies, investigations, and report described in paragraph (1) shall include collaboration with, and input from, a broad group of stakeholders, including, but not limited to, environmental groups, experts in indoor plumbing, and water, wastewater, and recycled water agencies.

**10609.6.** (a) (1) The department, in coordination with the board, shall conduct necessary studies and investigations and recommend, no later than October 1, 2021, standards for outdoor residential use for adoption by the board in accordance with this chapter.

- (2) (A) The standards shall incorporate the principles of the model water efficient landscape ordinance adopted by the department pursuant to the Water Conservation in Landscaping Act (Article 10.8 (commencing with Section 65591) of Chapter 3 of Division 1 of Title 7 of the Government Code).
  - (B) The standards shall apply to irrigable lands.

- (C) The standards shall include provisions for swimming pools, spas, and other water features. Ornamental water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, shall be analyzed separately from swimming pools and spas.
- (b) The department shall, by January 1, 2021, provide each urban retail water supplier with data regarding the area of residential irrigable lands in a manner that can reasonably be applied to the standards adopted pursuant to this section.
- (c) The department shall not recommend standards pursuant to this section until it has conducted pilot projects or studies, or some combination of the two, to ensure that the data provided to local agencies are reasonably accurate for the data's intended uses, taking into consideration California's diverse landscapes and community characteristics.

**10609.8.** (a) The department, in coordination with the board, shall conduct necessary studies and investigations and recommend, no later than October 1, 2021, standards for outdoor irrigation of landscape areas with dedicated irrigation meters or other means of calculating outdoor irrigation use in connection with CII water use for adoption by the board in accordance with this chapter.

- (b) The standards shall incorporate the principles of the model water efficient landscape ordinance adopted by the department pursuant to the Water Conservation in Landscaping Act (Article 10.8 (commencing with Section 65591) of Chapter 3 of Division 1 of Title 7 of the Government Code).
- (c) The standards shall include an exclusion for water for commercial agricultural use meeting the definition of subdivision (b) of Section 51201 of the Government Code.

**10609.9.** For purposes of Sections 10609.6 and 10609.8, "principles of the model water efficient landscape ordinance" means those provisions of the model water efficient landscape ordinance applicable to the establishment or determination of the amount of water necessary to efficiently irrigate both new and existing landscapes. These provisions include, but are not limited to, all of the following:

- (a) Evapotranspiration adjustment factors, as applicable.
- (b) Landscape area.
- (c) Maximum applied water allowance.
- (d) Reference evapotranspiration.
- (e) Special landscape areas, including provisions governing evapotranspiration adjustment factors for different types of water used for irrigating the landscape.

**10609.10.** (a) The department, in coordination with the board, shall conduct necessary studies and investigations and recommend, no later than October 1, 2021, performance measures for CII water use for adoption by the board in accordance with this chapter.

- (b) Prior to recommending performance measures for CII water use, the department shall solicit broad public participation from stakeholders and other interested persons relating to all of the following:
  - (1) Recommendations for a CII water use classification system for California that address significant uses of water.
  - (2) Recommendations for setting minimum size thresholds for converting mixed CII meters to dedicated irrigation meters, and evaluation of, and recommendations for, technologies that could be used in lieu of requiring dedicated irrigation meters.
  - (3) Recommendations for CII water use best management practices, which may include, but are not limited to, water audits and water management plans for those CII customers that exceed a recommended size, volume of water use, or other threshold.
- (c) Recommendations of appropriate performance measures for CII water use shall be consistent with the October 21, 2013, report to the Legislature by the Commercial, Industrial, and Institutional Task Force entitled "Water Use Best Management Practices," including the technical and financial feasibility recommendations provided in that report, and shall support the economic productivity of California's commercial, industrial, and institutional sectors.

(d) (1) The board, in coordination with the department, shall adopt performance measures for CII water use on or before June 30, 2022.

(a) Each urban retail water supplier shall implement the performance measures adopted by the board pursuant to paragraph (1).

**10609.12.** The standards for water loss for urban retail water suppliers shall be the standards adopted by the board pursuant to subdivision (i) of Section 10608.34.

**10609.14.** (a) The department, in coordination with the board, shall conduct necessary studies and investigations and, no later than October 1, 2021, recommend for adoption by the board in accordance with this chapter appropriate variances for unique uses that can have a material effect on an urban retail water supplier's urban water use objective.

- (b) Appropriate variances may include, but are not limited to, allowances for the following:
  - (1) Significant use of evaporative coolers.
  - (2) Significant populations of horses and other livestock.
  - (3) Significant fluctuations in seasonal populations.
  - (4) Significant landscaped areas irrigated with recycled water having high levels of total dissolved solids.
  - (5) Significant use of water for soil compaction and dust control.
  - (6) Significant use of water to supplement ponds and lakes to sustain wildlife.
  - (7) Significant use of water to irrigate vegetation for fire protection.
  - (8) Significant use of water for commercial or noncommercial agricultural use.
- (c) The department, in recommending variances for adoption by the board, shall also recommend a threshold of significance for each recommended variance.
- (d) Before including any specific variance in calculating an urban retail water supplier's water use objective, the urban retail water supplier shall request and receive approval by the board for the inclusion of that variance.
- (e) The board shall post on its Internet Web site all of the following:

- (1) A list of all urban retail water suppliers with approved variances.
- (2) The specific variance or variances approved for each urban retail water supplier.
- (3) The data supporting approval of each variance.

**10609.15.** To help streamline water data reporting, the department and the board shall do all of the following:

- (a) Identify urban water reporting requirements shared by both agencies, and post on each agency's Internet Web site how the data is used for planning, regulatory, or other purposes.
- (b) Analyze opportunities for more efficient publication of urban water reporting requirements within each agency, and analyze how each agency can integrate various data sets in a publicly accessible location, identify priority actions, and implement priority actions identified in the analysis.
- (c) Make appropriate data pertaining to the urban water reporting requirements that are collected by either agency available to the public according to the principles and requirements of the Open and Transparent Water Data Act (Part 4.9 (commencing with Section 12400)).

**10609.16.** The department, in coordination with the board, shall conduct necessary studies and investigations and recommend, no later than October 1, 2021, guidelines and methodologies for the board to adopt that identify how an urban retail water supplier calculates its urban water use objective. The guidelines and methodologies shall address, as necessary, all of the following:

- (a) Determining the irrigable lands within the urban retail water supplier's service area.
- (b) Updating and revising methodologies described pursuant to subparagraph (A) of paragraph (1) of subdivision (h) of Section 10608.20, as appropriate, including methodologies for calculating the population in an urban retail water supplier's service area.
- (c) Using landscape area data provided by the department or alternative data.

- (d) Incorporating precipitation data and climate data into estimates of a urban retail water supplier's outdoor irrigation budget for its urban water use objective.
- (e) Estimating changes in outdoor landscape area and population, and calculating the urban water use objective, for years when updated landscape imagery is not available from the department.
- (f) Determining acceptable levels of accuracy for the supporting data, the urban water use objective, and compliance with the urban water use objective.

**10609.18.** The department and the board shall solicit broad public participation from stakeholders and other interested persons in the development of the standards and the adoption of regulations pursuant to this chapter. The board shall hold at least one public meeting before taking any action on any standard or variance recommended by the department.

**10609.20.** (a) Each urban retail water supplier shall calculate its urban water use objective no later than January 1, 2024, and by January 1 every year thereafter.

- (b) The calculation shall be based on the urban retail water supplier's water use conditions for the previous calendar or fiscal year.
- (c) Each urban water supplier's urban water use objective shall be composed of the sum of the following:
  - (1) Aggregate estimated efficient indoor residential water use.
  - (2) Aggregate estimated efficient outdoor residential water use.
  - (3) Aggregate estimated efficient outdoor irrigation of landscape areas with dedicated irrigation meters or equivalent technology in connection with CII water use.
  - (4) Aggregate estimated efficient water losses.
  - (5) Aggregate estimated water use in accordance with variances, as appropriate.
- (d) (1) An urban retail water supplier that delivers water from a groundwater basin, reservoir, or other source that is augmented by potable reuse water may adjust its urban water use objective by a bonus incentive calculated pursuant to this subdivision.

- (2) The water use objective bonus incentive shall be the volume of its potable reuse delivered to residential water users and to landscape areas with dedicated irrigation meters in connection with CII water use, on an acre-foot basis.
- (3) The bonus incentive pursuant to paragraph (1) shall be limited in accordance with one of the following:
  - (A) The bonus incentive shall not exceed 15 percent of the urban water supplier's water use objective for any potable reuse water produced at an existing facility.
  - (B) The bonus incentive shall not exceed 10 percent of the urban water supplier's water use objective for any potable reuse water produced at any facility that is not an existing facility.
- (4) For purposes of this subdivision, "existing facility" means a facility that meets all of the following:
  - (A) The facility has a certified environmental impact report, mitigated negative declaration, or negative declaration on or before January 1, 2019.
  - (B) The facility begins producing and delivering potable reuse water on or before January 1, 2022.
  - (C) The facility uses microfiltration and reverse osmosis technologies to produce the potable reuse water.
- (e) (1) The calculation of the urban water use objective shall be made using landscape area and other data provided by the department and pursuant to the standards, guidelines, and methodologies adopted by the board. The department shall provide data to the urban water supplier at a level of detail sufficient to allow the urban water supplier to verify its accuracy at the parcel level.
  - (2) Notwithstanding paragraph (1), an urban retail water supplier may use alternative data in calculating the urban water use objective if the supplier demonstrates to the department that the alternative data are equivalent, or superior, in quality and accuracy to the data provided by the department. The department may provide technical assistance to an urban retail water supplier in evaluating whether the alternative data are appropriate for use in calculating the supplier's urban water use objective.

**10609.21.** (a) For purposes of Section 10609.20, and notwithstanding paragraph (4) of subdivision (d) of Section 10609.20, "existing facility" also includes the North City Project, phase one of the Pure Water San Diego Program, for which an environmental impact report was certified on April 10, 2018.

(b) This section shall become operative on January 1, 2019.

**10609.22.** (a) An urban retail water supplier shall calculate its actual urban water use no later than January 1, 2024, and by January 1 every year thereafter.

- (b) The calculation shall be based on the urban retail water supplier's water use for the previous calendar or fiscal year.
- (c) Each urban water supplier's urban water use shall be composed of the sum of the following:
  - (1) Aggregate residential water use.
  - (2) Aggregate outdoor irrigation of landscape areas with dedicated irrigation meters in connection with CII water use.
  - (3) Aggregate water losses.

**10609.24.** (a) An urban retail water supplier shall submit a report to the department no later than January 1, 2024, and by January 1 every year thereafter. The report shall include all of the following:

- The urban water use objective calculated pursuant to Section 10609.20 along with relevant supporting data.
- (2) The actual urban water use calculated pursuant to Section 10609.22 along with relevant supporting data.
- (3) Documentation of the implementation of the performance measures for CII water use.
- (4) A description of the progress made towards meeting the urban water use objective.
- (5) The validated water loss audit report conducted pursuant to Section 10608.34.
- (b) The department shall post the reports and information on its internet website.

(c) The board may issue an information order or conservation order to, or impose civil liability on, an entity or individual for failure to submit a report required by this section.

**10609.25.** As part of the first report submitted to the department by an urban retail water supplier no later than January 1, 2024, pursuant to subdivision (a) of Section 10609.24, each urban retail water supplier shall provide a narrative that describes the water demand management measures that the supplier plans to implement to achieve its urban water use objective by January 1, 2027.

**10609.26.** (a) (1) On and after January 1, 2024, the board may issue informational orders pertaining to water production, water use, and water conservation to an urban retail water supplier that does not meet its urban water use objective required by this chapter. Informational orders are intended to obtain information on supplier activities, water production, and conservation efforts in order to identify technical assistance needs and assist urban water suppliers in meeting their urban water use objectives.

- (2) In determining whether to issue an informational order, the board shall consider the degree to which the urban retail water supplier is not meeting its urban water use objective, information provided in the report required by Section 10609.24, and actions the urban retail water supplier has implemented or will implement in order to help meet the urban water use objective.
- (3) The board shall share information received pursuant to this subdivision with the department.
- (4) An urban water supplier may request technical assistance from the department. The technical assistance may, to the extent available, include guidance documents, tools, and data.
- (b) On and after January 1, 2025, the board may issue a written notice to an urban retail water supplier that does not meet its urban water use objective required by this chapter. The written notice may warn the urban retail water supplier that it is not meeting its urban water use objective described in Section 10609.20 and is not making adequate progress in meeting the urban water use objective, and may request that the urban retail water supplier

address areas of concern in its next annual report required by Section 10609.24. In deciding whether to issue a written notice, the board may consider whether the urban retail water supplier has received an informational order, the degree to which the urban retail water supplier is not meeting its urban water use objective, information provided in the report required by Section 10609.24, and actions the urban retail water supplier has implemented or will implement in order to help meet its urban water use objective.

- (c) (1) On and after January 1, 2026, the board may issue a conservation order to an urban retail water supplier that does not meet its urban water use objective. A conservation order may consist of, but is not limited to, referral to the department for technical assistance, requirements for education and outreach, requirements for local enforcement, and other efforts to assist urban retail water suppliers in meeting their urban water use objective.
  - (2) In issuing a conservation order, the board shall identify specific deficiencies in an urban retail water supplier's progress towards meeting its urban water use objective, and identify specific actions to address the deficiencies.
  - (3) The board may request that the department provide an urban retail water supplier with technical assistance to support the urban retail water supplier's actions to remedy the deficiencies.
- (d) A conservation order issued in accordance with this chapter may include requiring actions intended to increase water-use efficiency, but shall not curtail or otherwise limit the exercise of a water right, nor shall it require the imposition of civil liability pursuant to Section 377.

**10609.27.** Notwithstanding Section 10609.26, the board shall not issue an information order, written notice, or conservation order pursuant to Section 10609.26 if both of the following conditions are met:

(a) The board determines that the urban retail water supplier is not meeting its urban water use objective solely because the volume of water loss exceeds the urban retail water supplier's standard for water loss. (b) Pursuant to Section 10608.34, the board is taking enforcement action against the urban retail water supplier for not meeting the performance standards for the volume of water losses.

**10609.28.** The board may issue a regulation or informational order requiring a wholesale water supplier, an urban retail water supplier, or a distributor of a public water supply, as that term is used in Section 350, to provide a monthly report relating to water production, water use, or water conservation.

**10609.30.** On or before January 10, 2024, the Legislative Analyst shall provide to the appropriate policy committees of both houses of the Legislature and the public a report evaluating the implementation of the water use efficiency standards and water use reporting pursuant to this chapter. The board and the department shall provide the Legislative Analyst with the available data to complete this report.

- (a) The report shall describe all of the following:
  - (1) The rate at which urban retail water users are complying with the standards, and factors that might facilitate or impede their compliance.
  - (2) The accuracy of the data and estimates being used to calculate urban water use objectives.
  - (3) Indications of the economic impacts, if any, of the implementation of this chapter on urban water suppliers and urban water users, including CII water users.
  - (4) The frequency of use of the bonus incentive, the volume of water associated with the bonus incentive, value to urban water suppliers of the bonus incentive, and any implications of the use of the bonus incentive on water use efficiency.
  - (5) The early indications of how implementing this chapter might impact the efficiency of statewide urban water use.
  - (6) Recommendations, if any, for improving statewide urban water use efficiency and the standards and practices described in this chapter.
  - (7) Any other issues the Legislative Analyst deems appropriate.

**10609.32.** It is the intent of the Legislature that the chairperson of the board and the director of the department appear before the appropriate policy committees of both houses of the Legislature on or around January 1, 2026, and report on the implementation of the water use efficiency standards and water use reporting pursuant to this chapter. It is the intent of the Legislature that the topics to be covered include all of the following:

- (a) The rate at which urban retail water suppliers are complying with the standards, and factors that might facilitate or impede their compliance.
- (b) What enforcement actions have been taken, if any.
- (c) The accuracy of the data and estimates being used to calculate urban water use objectives.
- (d) Indications of the economic impacts, if any, of the implementation of this chapter on urban water suppliers and urban water users, including CII water users.
- (e) The frequency of use of the bonus incentive, the volume of water associated with the bonus incentive, value to urban water suppliers of the bonus incentive, and any implications of the use of the bonus incentive on water use efficiency.
- (f) An assessment of how implementing this chapter is affecting the efficiency of statewide urban water use.

**10609.34.** Notwithstanding Section 15300.2 of Title 14 of the California Code of Regulations, an action of the board taken under this chapter shall be deemed to be a Class 8 action, within the meaning of Section 15308 of Title 14 of the California Code of Regulations, provided that the action does not involve relaxation of existing water conservation or water use standards.

**10609.36.** (a) Nothing in this chapter shall be construed to determine or alter water rights. Sections 1010 and 1011 apply to water conserved through implementation of this chapter.

(b) Nothing in this chapter shall be construed to authorize the board to update or revise water use efficiency standards authorized by this chapter except as explicitly provided in this chapter. Authorization to update the standards beyond that explicitly provided in this chapter shall require separate legislation. (c) Nothing in this chapter shall be construed to limit or otherwise affect the use of recycled water as seawater barriers for groundwater salinity management.

**10609.38.** The board may waive the requirements of this chapter for a period of up to five years for any urban retail water supplier whose water deliveries are significantly affected by changes in water use as a result of damage from a disaster such as an earthquake or fire. In establishing the period of a waiver, the board shall take into consideration the breadth of the damage and the time necessary for the damaged areas to recover from the disaster.

## PART 2.6. URBAN WATER MANAGEMENT PLANNING CHAPTER 1. General Declaration and Policy [10610 – 10610.4]

**10610.** This part shall be known and may be cited as the "Urban Water Management Planning Act."

10610.2. (a) The Legislature finds and declares all of the following:

- (1) The waters of the state are a limited and renewable resource subject to ever-increasing demands.
- (2) The conservation and efficient use of urban water supplies are of statewide concern; however, the planning for that use and the implementation of those plans can best be accomplished at the local level.
- (3) A long-term, reliable supply of water is essential to protect the productivity of California's businesses and economic climate, and increasing long-term water conservation among Californians, improving water use efficiency within the state's communities and agricultural production, and strengthening local and regional drought planning are critical to California's resilience to drought and climate change.
- (4) As part of its long-range planning activities, every urban water supplier should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry water years now and into the

foreseeable future, and every urban water supplier should collaborate closely with local land-use authorities to ensure water demand forecasts are consistent with current land-use planning.

- (5) Public health issues have been raised over a number of contaminants that have been identified in certain local and imported water supplies.
- (6) Implementing effective water management strategies, including groundwater storage projects and recycled water projects, may require specific water quality and salinity targets for meeting groundwater basins water quality objectives and promoting beneficial use of recycled water.
- (7) Water quality regulations are becoming an increasingly important factor in water agencies' selection of raw water sources, treatment alternatives, and modifications to existing treatment facilities.
- (8) Changes in drinking water quality standards may also impact the usefulness of water supplies and may ultimately impact supply reliability.
- (9) The quality of source supplies can have a significant impact on water management strategies and supply reliability.
- (b) This part is intended to provide assistance to water agencies in carrying out their long-term resource planning responsibilities to ensure adequate water supplies to meet existing and future demands for water.

**10610.4.** The Legislature finds and declares that it is the policy of the state as follows:

- (a) The management of urban water demands and efficient use of water shall be actively pursued to protect both the people of the state and their water resources.
- (b) The management of urban water demands and efficient use of urban water supplies shall be a guiding criterion in public decisions.
- (c) Urban water suppliers shall be required to develop water management plans to achieve the efficient use of available supplies and strengthen local drought planning.

#### CHAPTER 2. Definitions [10611 - 10618]

**10611.** Unless the context otherwise requires, the definitions of this chapter govern the construction of this part.

**10611.3.** "Customer" means a purchaser of water from a water supplier who uses the water for municipal purposes, including residential, commercial, governmental, and industrial uses.

**10611.5.** "Demand management" means those water conservation measures, programs, and incentives that prevent the waste of water and promote the reasonable and efficient use and reuse of available supplies.

**10612.** "Drought risk assessment" means a method that examines water shortage risks based on the driest five-year historic sequence for the agency's water supply, as described in subdivision (b) of Section 10635.

**10613.** "Efficient use" means those management measures that result in the most effective use of water so as to prevent its waste or unreasonable use or unreasonable method of use.

**10614.** "Person" means any individual, firm, association, organization, partnership, business, trust, corporation, company, public agency, or any agency of such an entity.

**10615.** "Plan" means an urban water management plan prepared pursuant to this part. A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities. The components of the plan may vary according to an individual community or area's characteristics and its capabilities to efficiently use and conserve water. The plan shall address measures for residential, commercial, governmental, and industrial water demand management as set forth in Article 2 (commencing with Section 10630) of Chapter 3. In addition, a strategy and time schedule for implementation shall be included in the plan.

**10616.** "Public agency" means any board, commission, county, city and county, city, regional agency, district, or other public entity.

**10616.5.** "Recycled water" means the reclamation and reuse of wastewater for beneficial use.

**10617.** "Urban water supplier" means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. An urban water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers. This part applies only to water supplied from public water systems subject to Chapter 4 (commencing with Section 116275) of Part 12 of Division 104 of the Health and Safety Code.

**10617.5.** "Water shortage contingency plan" means a document that incorporates the provisions detailed in subdivision (a) of Section 10632 and is subsequently adopted by an urban water supplier pursuant to this article.

**10618.** "Water supply and demand assessment" means a method that looks at current year and one or more dry year supplies and demands for determining water shortage risks, as described in Section 10632.1.

### CHAPTER 3. Urban Water Management Plans ARTICLE 1. General Provisions [10620 – 10621]

**10620.** (a) Every urban water supplier shall prepare and adopt an urban water management plan in the manner set forth in Article 3 (commencing with Section 10640).

- (b) Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.
- (c) An urban water supplier indirectly providing water shall not include planning elements in its water management plan as provided in Article 2 (commencing with Section 10630) that would be applicable to urban water suppliers or public agencies directly providing water, or to their customers, without the consent of those suppliers or public agencies.
- (d) (1) An urban water supplier may satisfy the requirements of this part by participation in areawide, regional, watershed, or basinwide urban water management planning where those plans will reduce

preparation costs and contribute to the achievement of conservation, efficient water use, and improved local drought resilience.

- (2) Notwithstanding paragraph (1), each urban water supplier shall develop its own water shortage contingency plan, but an urban water supplier may incorporate, collaborate, and otherwise share information with other urban water suppliers or other governing entities participating in an areawide, regional, watershed, or basinwide urban water management plan, an agricultural management plan, or groundwater sustainability plan development.
- (3) Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.
- (e) The urban water supplier may prepare the plan with its own staff, by contract, or in cooperation with other governmental agencies.
- (f) An urban water supplier shall describe in the plan water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions.

**10621.** (a) Each urban water supplier shall update its plan at least once every five years on or before July 1, in years ending in six and one, incorporating updated and new information from the five years preceding each update.

- (b) Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days before the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. The urban water supplier may consult with, and obtain comments from, any city or county that receives notice pursuant to this subdivision.
- (c) An urban water supplier regulated by the Public Utilities Commission shall include its most recent plan and water shortage

contingency plan as part of the supplier's general rate case filings.

- (d) The amendments to, or changes in, the plan shall be adopted and filed in the manner set forth in Article 3 (commencing with Section 10640).
- (e) Each urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.
- (f) Each urban water supplier shall update and submit its 2020 plan to the department by July 1, 2021.

#### CHAPTER 3. Urban Water Management Plans ARTICLE 2. Contents of Plans [10630 – 10634]

**10630.** It is the intention of the Legislature, in enacting this part, to permit levels of water management planning commensurate with the numbers of customers served and the volume of water supplied, while accounting for impacts from climate change.

**10630.5.** Each plan shall include a simple lay description of how much water the agency has on a reliable basis, how much it needs for the foreseeable future, what the agency's strategy is for meeting its water needs, the challenges facing the agency, and any other information necessary to provide a general understanding of the agency's plan.

**10631.** A plan shall be adopted in accordance with this chapter that shall do all of the following:

(a) Describe the service area of the supplier, including current and projected population, climate, and other social, economic, and demographic factors affecting the supplier's water management planning. The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available. The description shall include the current and projected land uses within the existing or anticipated service area affecting the supplier's water management planning. Urban water suppliers shall coordinate with local or regional land use authorities to determine the most appropriate land use information, including, where appropriate, land use information obtained from local or regional land use authorities, as developed pursuant to Article 5 (commencing with Section 65300) of Chapter 3 of Division 1 of Title 7 of the Government Code.

- (b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a), providing supporting and related information, including all of the following:
  - (1) A detailed discussion of anticipated supply availability under a normal water year, single dry year, and droughts lasting at least five years, as well as more frequent and severe periods of drought, as described in the drought risk assessment. For each source of water supply, consider any information pertinent to the reliability analysis conducted pursuant to Section 10635, including changes in supply due to climate change.
  - (2) When multiple sources of water supply are identified, a description of the management of each supply in correlation with the other identified supplies.
  - (3) For any planned sources of water supply, a description of the measures that are being undertaken to acquire and develop those water supplies.
  - (4) If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information:
    - (A) The current version of any groundwater sustainability plan or alternative adopted pursuant to Part 2.74 (commencing with Section 10720), any groundwater management plan adopted by the urban water supplier, including plans adopted pursuant to Part 2.75 (commencing with Section 10750), or any other specific authorization for groundwater management for basins underlying the urban water supplier's service area.
    - (B) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater.

For basins that a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree. For a basin that has not been adjudicated, information as to whether the department has identified the basin as a high- or medium-priority basin in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to coordinate with groundwater sustainability agencies or groundwater management agencies listed in subdivision (c) of Section 10723 to maintain or achieve sustainable groundwater conditions in accordance with a groundwater sustainability plan or alternative adopted pursuant to Part 2.74 (commencing with Section 10720).

- (C) A detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.
- (D) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.
- (c) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.
- (d) (1) For an urban retail water supplier, quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, based upon information developed pursuant to subdivision (a), identifying the uses among water use sectors,

including, but not necessarily limited to, all of the following:

- (A) Single-family residential.
- (B) Multifamily.
- (C) Commercial.
- (D) Industrial.
- (E) Institutional and governmental.
- (F) Landscape.
- (G) Sales to other agencies.
- (H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.
- (I) Agricultural.
- (J) Distribution system water loss.
- (2) The water use projections shall be in the same five-year increments described in subdivision (a).
- (3) (A) The distribution system water loss shall be quantified for each of the five years preceding the plan update, in accordance with rules adopted pursuant to Section 10608.34.
  - (B) The distribution system water loss quantification shall be reported in accordance with a worksheet approved or developed by the department through a public process. The water loss quantification worksheet shall be based on the water system balance methodology developed by the American Water Works Association.
  - (C) In the plan due July 1, 2021, and in each update thereafter, data shall be included to show whether the urban retail water supplier met the distribution loss standards enacted by the board pursuant to Section 10608.34.
- (4) (A) Water use projections, where available, shall display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans identified by the urban water supplier, as applicable to the service area.

- (B) To the extent that an urban water supplier reports the information described in subparagraph (A), an urban water supplier shall do both of the following:
  - Provide citations of the various codes, standards, ordinances, or transportation and land use plans utilized in making the projections.
  - (ii) Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.
- (e) Provide a description of the supplier's water demand management measures. This description shall include all of the following:
- (1) (A) For an urban retail water supplier, as defined in Section 10608.12, a narrative description that addresses the nature and extent of each water demand management measure implemented over the past five years. The narrative shall describe the water demand management measures that the supplier plans to implement to achieve its water use targets pursuant to Section 10608.20.
  - (B) The narrative pursuant to this paragraph shall include descriptions of the following water demand management measures:
    - (i) Water waste prevention ordinances.
    - (ii) Metering.
    - (iii) Conservation pricing.
    - (iv) Public education and outreach.
    - (v) Programs to assess and manage distribution system real loss.
    - (vi) Water conservation program coordination and staffing support.
    - (vii) Other demand management measures that have a significant impact on water use as measured in

gallons per capita per day, including innovative measures, if implemented.

- (2) For an urban wholesale water supplier, as defined in Section 10608.12, a narrative description of the items in clauses (ii), (iv), (vi), and (vii) of subparagraph (B) of paragraph (1), and a narrative description of its distribution system asset management and wholesale supplier assistance programs.
- (f) Include a description of all water supply projects and water supply programs that may be undertaken by the urban water supplier to meet the total projected water use, as established pursuant to subdivision (a) of Section 10635. The urban water supplier shall include a detailed description of expected future projects and programs that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in normal and single-dry water years and for a period of drought lasting five consecutive water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.
- (g) Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.
- (h) An urban water supplier that relies upon a wholesale agency for a source of water shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (f). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (f).

**10631.1.** (a) The water use projections required by Section 10631 shall include projected water use for single-family and multifamily residential housing needed for lower income households, as defined in Section 50079.5 of the Health and Safety Code, as identified in the housing element of any city, county, or city and county in the service area of the supplier.

(b) It is the intent of the Legislature that the identification of projected water use for single-family and multifamily residential housing for lower income households will assist a supplier in complying with the requirement under Section 65589.7 of the Government Code to grant a priority for the provision of service to housing units affordable to lower income households.

**10631.2.** (a) In addition to the requirements of Section 10631, an urban water management plan shall include any of the following information that the urban water supplier can readily obtain:

- (1) An estimate of the amount of energy used to extract or divert water supplies.
- (2) An estimate of the amount of energy used to convey water supplies to the water treatment plants or distribution systems.
- (3) An estimate of the amount of energy used to treat water supplies.
- (4) An estimate of the amount of energy used to distribute water supplies through its distribution systems.
- (5) An estimate of the amount of energy used for treated water supplies in comparison to the amount used for nontreated water supplies.
- (6) An estimate of the amount of energy used to place water into or withdraw from storage.
- (7) Any other energy-related information the urban water supplier deems appropriate.
- (b) The department shall include in its guidance for the preparation of urban water management plans a methodology for the voluntary calculation or estimation of the energy intensity of urban water systems. The department may consider studies and calculations conducted by the Public Utilities Commission in developing the methodology.

(c) The Legislature finds and declares that energy use is only one factor in water supply planning and shall not be considered independently of other factors.

**10632.** (a) Every urban water supplier shall prepare and adopt a water shortage contingency plan as part of its urban water management plan that consists of each of the following elements:

- (1) The analysis of water supply reliability conducted pursuant to Section 10635.
- (2) The procedures used in conducting an annual water supply and demand assessment that include, at a minimum, both of the following:
  - (A) The written decision making process that an urban water supplier will use each year to determine its water supply reliability.
  - (B) The key data inputs and assessment methodology used to evaluate the urban water supplier's water supply reliability for the current year and one dry year, including all of the following:
    - (i) Current year unconstrained demand, considering weather, growth, and other influencing factors, such as policies to manage current supplies to meet demand objectives in future years, as applicable.
    - (ii) Current year available supply, considering hydrological and regulatory conditions in the current year and one dry year. The annual supply and demand assessment may consider more than one dry year solely at the discretion of the urban water supplier.
    - (iii) Existing infrastructure capabilities and plausible constraints.
    - (iv) A defined set of locally applicable evaluation criteria that are consistently relied upon for each annual water supply and demand assessment.
    - (v) A description and quantification of each source of water supply.

- (3) (A) Six standard water shortage levels corresponding to progressive ranges of up to 10, 20, 30, 40, and 50 percent shortages and greater than 50 percent shortage. Urban water suppliers shall define these shortage levels based on the suppliers' water supply conditions, including percentage reductions in water supply, changes in groundwater levels, changes in surface elevation or level of subsidence, or other changes in hydrological or other local conditions indicative of the water supply available for use. Shortage levels shall also apply to catastrophic interruption of water supplies, including, but not limited to, a regional power outage, an earthquake, and other potential emergency events.
  - (B) An urban water supplier with an existing water shortage contingency plan that uses different water shortage levels may comply with the requirement in subparagraph (A) by developing and including a crossreference relating its existing categories to the six standard water shortage levels.
- (4) Shortage response actions that align with the defined shortage levels and include, at a minimum, all of the following:
  - (A) Locally appropriate supply augmentation actions.
  - (B) Locally appropriate demand reduction actions to adequately respond to shortages.
  - (C) Locally appropriate operational changes.
  - (D) Additional, mandatory prohibitions against specific water use practices that are in addition to statemandated prohibitions and appropriate to the local conditions.
  - (E) For each action, an estimate of the extent to which the gap between supplies and demand will be reduced by implementation of the action.
- (5) Communication protocols and procedures to inform customers, the public, interested parties, and local, regional, and state governments, regarding, at a minimum, all of the following:

- (A) Any current or predicted shortages as determined by the annual water supply and demand assessment described pursuant to Section 10632.1.
- (B) Any shortage response actions triggered or anticipated to be triggered by the annual water supply and demand assessment described pursuant to Section 10632.1.
- (C) Any other relevant communications.
- (6) For an urban retail water supplier, customer compliance, enforcement, appeal, and exemption procedures for triggered shortage response actions as determined pursuant to Section 10632.2.
- (7) (A) A description of the legal authorities that empower the urban water supplier to implement and enforce its shortage response actions specified in paragraph (4) that may include, but are not limited to, statutory authorities, ordinances, resolutions, and contract provisions.
  - (A) A statement that an urban water supplier shall declare a water shortage emergency in accordance with Chapter 3 (commencing with Section 350) of Division 1.
  - (B) A statement that an urban water supplier shall coordinate with any city or county within which it provides water supply services for the possible proclamation of a local emergency, as defined in Section 8558 of the Government Code.
- (8) A description of the financial consequences of, and responses for, drought conditions, including, but not limited to, all of the following:
  - (A) A description of potential revenue reductions and expense increases associated with activated shortage response actions described in paragraph (4).
  - (B) A description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions described in paragraph (4).

- (C) A description of the cost of compliance with Chapter3.3 (commencing with Section 365) of Division 1.
- (9) For an urban retail water supplier, monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance and to meet state reporting requirements.
- (10) Reevaluation and improvement procedures for systematically monitoring and evaluating the functionality of the water shortage contingency plan in order to ensure shortage risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented as needed.
- (b) For purposes of developing the water shortage contingency plan pursuant to subdivision (a), an urban water supplier shall analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code.
- (c) The urban water supplier shall make available the water shortage contingency plan prepared pursuant to this article to its customers and any city or county within which it provides water supplies no later than 30 days after adoption of the water shortage contingency plan.

**10632.1.** An urban water supplier shall conduct an annual water supply and demand assessment pursuant to subdivision (a) of Section 10632 and, on or before July 1 of each year, submit an annual water shortage assessment report to the department with information for anticipated shortage, triggered shortage response actions, compliance and enforcement actions, and communication actions consistent with the supplier's water shortage contingency plan. An urban water supplier that relies on imported water from the State Water Project or the Bureau of Reclamation shall submit its annual water supply and demand assessment within 14 days of receiving its final allocations, or by July 1 of each year, whichever is later.

**10632.2.** An urban water supplier shall follow, where feasible and appropriate, the prescribed procedures and implement determined shortage response actions in its water shortage contingency plan, as identified in

subdivision (a) of Section 10632, or reasonable alternative actions, provided that descriptions of the alternative actions are submitted with the annual water shortage assessment report pursuant to Section 10632.1. Nothing in this section prohibits an urban water supplier from taking actions not specified in its water shortage contingency plan, if needed, without having to formally amend its urban water management plan or water shortage contingency plan.

**10632.3.** It is the intent of the Legislature that, upon proclamation by the Governor of a state of emergency under the California Emergency Services Act (Chapter 7 (commencing with Section 8550) of Division 1 of Title 2 of the Government Code) based on drought conditions, the board defer to implementation of locally adopted water shortage contingency plans to the extent practicable.

**10632.5.** (a) In addition to the requirements of paragraph (3) of subdivision (a) of Section 10632, beginning January 1, 2020, the plan shall include a seismic risk assessment and mitigation plan to assess the vulnerability of each of the various facilities of a water system and mitigate those vulnerabilities.

- (b) An urban water supplier shall update the seismic risk assessment and mitigation plan when updating its urban water management plan as required by Section 10621.
- (c) An urban water supplier may comply with this section by submitting, pursuant to Section 10644, a copy of the most recent adopted local hazard mitigation plan or multihazard mitigation plan under the federal Disaster Mitigation Act of 2000 (Public Law 106-390) if the local hazard mitigation plan or multihazard mitigation plan addresses seismic risk.

**10633.** The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the serv`ice area of the urban water supplier. The preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area, and shall include all of the following:

(a) A description of the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.

- (b) A description of the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.
- (c) A description of the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.
- (d) A description and quantification of the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, indirect potable reuse, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.
- (e) The projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected pursuant to this subdivision.
- (f) A description of actions, including financial incentives, which may be taken to encourage the use of recycled water, and the projected results of these actions in terms of acre-feet of recycled water used per year.
- (g) A plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.

**10634.** The plan shall include information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments as described in subdivision (a) of Section 10631, and the manner in which water quality affects water management strategies and supply reliability.

# CHAPTER 3. Urban Water Management Plans ARTICLE 2.5. Water Service Reliability [10635]

**10635.** (a) Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the long-term total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and a drought lasting five consecutive water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.

- (b) Every urban water supplier shall include, as part of its urban water management plan, a drought risk assessment for its water service to its customers as part of information considered in developing the demand management measures and water supply projects and programs to be included in the urban water management plan. The urban water supplier may conduct an interim update or updates to this drought risk assessment within the five-year cycle of its urban water management plan update. The drought risk assessment shall include each of the following:
  - (1) A description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts five consecutive water years, starting from the year following when the assessment is conducted.
  - (2) A determination of the reliability of each source of supply under a variety of water shortage conditions. This may include a determination that a particular source of water supply is fully reliable under most, if not all, conditions.
  - (3) A comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period.
  - (4) Considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate

change conditions, anticipated regulatory changes, and other locally applicable criteria.

- (d) The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after the submission of its urban water management plan.
- (e) Nothing in this article is intended to create a right or entitlement to water service or any specific level of water service.
- (f) Nothing in this article is intended to change existing law concerning an urban water supplier's obligation to provide water service to its existing customers or to any potential future customers.

# CHAPTER 3. Urban Water Management Plans ARTICLE 3. Adoption and Implementation of Plans [10640 – 10645]

**10640.** (a) Every urban water supplier required to prepare a plan pursuant to this part shall prepare its plan pursuant to Article 2 (commencing with Section 10630). The supplier shall likewise periodically review the plan as required by Section 10621, and any amendments or changes required as a result of that review shall be adopted pursuant to this article.

(b) Every urban water supplier required to prepare a water shortage contingency plan shall prepare a water shortage contingency plan pursuant to Section 10632. The supplier shall likewise periodically review the water shortage contingency plan as required by paragraph (10) of subdivision (a) of Section 10632 and any amendments or changes required as a result of that review shall be adopted pursuant to this article. **10641.** An urban water supplier required to prepare a plan or a water shortage contingency plan may consult with, and obtain comments from, any public agency or state agency or any person who has special expertise with respect to water demand management methods and techniques.

**10642.** Each urban water supplier shall encourage the active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of both the plan and the water shortage contingency plan. Prior to adopting either, the urban water supplier shall make both the plan and the water shortage contingency plan available for public inspection and shall hold a public hearing or hearings thereon. Prior to any of these hearings, notice of the time and place of the hearing shall be published within the jurisdiction of the publicly owned water supplier pursuant to Section 6066 of the Government Code. The urban water supplier shall provide notice of the time and place of a hearing to any city or county within which the supplier provides water supplies. Notices by a local public agency pursuant to this section shall be provided pursuant to Chapter 17.5 (commencing with Section 7290) of Division 7 of Title 1 of the Government Code. A privately owned water supplier shall provide an equivalent notice within its service area. After the hearing or hearings, the plan or water shortage contingency plan shall be adopted as prepared or as modified after the hearing or hearings.

**10643.** An urban water supplier shall implement its plan adopted pursuant to this chapter in accordance with the schedule set forth in its plan.

**10644.** (a) (1) An urban water supplier shall submit to the department, the California State Library, and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption. Copies of amendments or changes to the plans shall be submitted to the department, the California State Library, and any city or county within which the supplier provides water supplies within 30 days after adoption.

- (2) The plan, or amendments to the plan, submitted to the department pursuant to paragraph (1) shall be submitted electronically and shall include any standardized forms, tables, or displays specified by the department.
- (b) If an urban water supplier revises its water shortage contingency plan, the supplier shall submit to the department a copy of its

water shortage contingency plan prepared pursuant to subdivision (a) of Section 10632 no later than 30 days after adoption, in accordance with protocols for submission and using electronic reporting tools developed by the department.

- (c) (1) (A) Notwithstanding Section 10231.5 of the Government Code, the department shall prepare and submit to the Legislature, on or before July 1, in the years ending in seven and two, a report summarizing the status of the plans and water shortage contingency plans adopted pursuant to this part. The report prepared by the department shall identify the exemplary elements of the individual plans and water shortage contingency plans. The department shall provide a copy of the report to each urban water supplier that has submitted its plan and water shortage contingency plan to the department. The department shall also prepare reports and provide data for any legislative hearings designed to consider the effectiveness of plans and water shortage contingency plans submitted pursuant to this part.
  - (B) The department shall prepare and submit to the board, on or before September 30 of each year, a report summarizing the submitted water supply and demand assessment results along with appropriate reported water shortage conditions and the regional and statewide analysis of water supply conditions developed by the department. As part of the report, the department shall provide a summary and, as appropriate, urban water supplier specific information regarding various shortage response actions implemented as a result of annual supplier-specific water supply and demand assessments performed pursuant to Section 10632.1.
  - (C) The department shall submit the report to the Legislature for the 2015 plans by July 1, 2017, and the report to the Legislature for the 2020 plans and water shortage contingency plans by July 1, 2022.
  - (2) A report to be submitted pursuant to subparagraph (A) of paragraph (1) shall be submitted in compliance with Section 9795 of the Government Code.

(d) The department shall make available to the public the standard the department will use to identify exemplary water demand management measures.

**10645.** (a) Not later than 30 days after filing a copy of its plan with the department, the urban water supplier and the department shall make the plan available for public review during normal business hours.

(b) Not later than 30 days after filing a copy of its water shortage contingency plan with the department, the urban water supplier and the department shall make the plan available for public review during normal business hours.

#### CHAPTER 4. Miscellaneous Provisions [10650 – 10657]

**10650.** Any actions or proceedings, other than actions by the board, to attack, review, set aside, void, or annul the acts or decisions of an urban water supplier on the grounds of noncompliance with this part shall be commenced as follows:

- (a) An action or proceeding alleging failure to adopt a plan or a water shortage contingency plan shall be commenced within 18 months after that adoption is required by this part.
- (b) Any action or proceeding alleging that a plan or water shortage contingency plan, or action taken pursuant to either, does not comply with this part shall be commenced within 90 days after filing of the plan or water shortage contingency plan or an amendment to either pursuant to Section 10644 or the taking of that action.

**10651.** In any action or proceeding to attack, review, set aside, void, or annul a plan or a water shortage contingency plan, or an action taken pursuant to either by an urban water supplier on the grounds of noncompliance with this part, the inquiry shall extend only to whether there was a prejudicial abuse of discretion. Abuse of discretion is established if the supplier has not proceeded in a manner required by law or if the action by the water supplier is not supported by substantial evidence.

**10652.** The California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) does not apply to the

preparation and adoption of plans pursuant to this part or to the implementation of actions taken pursuant to Section 10632. Nothing in this part shall be interpreted as exempting from the California Environmental Quality Act any project that would significantly affect water supplies for fish and wildlife, or any project for implementation of the plan, other than projects implementing Section 10632, or any project for expanded or additional water supplies.

**10653.** The adoption of a plan shall satisfy any requirements of state law, regulation, or order, including those of the board and the Public Utilities Commission, for the preparation of water management plans, water shortage contingency plans, or conservation plans; provided, that if the board or the Public Utilities Commission requires additional information concerning water conservation, drought response measures, or financial conditions to implement its existing authority, nothing in this part shall be deemed to limit the board or the commission in obtaining that information. The requirements of this part shall be satisfied by any urban water demand management plan that complies with analogous federal laws or regulations after the effective date of this part, and which substantially meets the requirements of this part, or by any existing urban water management plan which includes the contents of a plan required under this part.

**10654.** An urban water supplier may recover in its rates the costs incurred in preparing its urban water management plan, its drought risk assessment, its water supply and demand assessment, and its water shortage contingency plan and implementing the reasonable water conservation measures included in either of the plans.

**10655.** If any provision of this part or the application thereof to any person or circumstances is held invalid, that invalidity shall not affect other provisions or applications of this part which can be given effect without the invalid provision or application thereof, and to this end the provisions of this part are severable.

**10656.** An urban water supplier is not eligible for a water grant or loan awarded or administered by the state unless the urban water supplier complies with this part.

**10657.** The department may adopt regulations regarding the definitions of water, water use, and reporting periods, and may adopt any other regulations deemed necessary or desirable to implement this part. In developing regulations pursuant to this section, the department shall solicit broad public participation from stakeholders and other interested persons.

B

# Appendix B: Notices of Preparation and Notices of Public Hearing



Indio Water Authority Your Water, Our Responsibility





February 24, 2021

Jon McMillen City Manager La Quinta 78-495 Calle Tampico La Quinta CA 92253 jmcmillen@laquintaca.gov

Re: Notice of Intent to Update Urban Water Management Plan

Dear Mr. McMillen:

On behalf of the six participating agencies, this letter provides notice that six water agencies in the Coachella Valley are updating their Urban Water Management Plan (UWMP) and preparing a Regional UWMP to comply with the current requirements of the Urban Water Management Planning Act. The participating agencies are:

- Coachella Valley Water District
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The State of California requires urban water purveyors to update their UWMP every five years. Preparing a Regional UWMP will allow the six agencies to coordinate their efforts on demand projections and supply characterizations.

The agencies will be evaluating their previous UWMP and considering amendments and changes as required by the law. The agencies will be hosting a public workshop to gather input, and the draft RUWMP will be made available for public review before each agency's governing board holds a public hearing to gather input and consider adoption. The adopted RUWMP is due to be submitted to the State by July 1, 2021. More information and the draft RUWMP will be available at <a href="http://www.cvrwmg.org/uwmp/">http://www.cvrwmg.org/uwmp/</a>.

On behalf of all the RUWMP Agencies,

-Moll

Ryan Molhoek, P.E. Senior Engineer Desert Water Agency



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February 24, 2021

Cheri L. Flores Planning Manager La Quinta 78-495 Calle Tampico La Quinta CA 92253 cflores@laquintaca.gov

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Danny Castro Design and Development Director La Quinta 78-495 Calle Tampico La Quinta CA 92253 dcastro@laquintaca.gov

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Trish Rhay General Manager Indio 83101 Avenue 45 Indio CA 92201 trhay@indio.org

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Castulo Estrada Utilities Manager Coachella 53990 Enterprise Way Coachella CA 92236 cestrada@coachella.org

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Randy Bynder Interim City Manager Palm Desert 73510 Fred Waring Drive Palm Desert CA 92260 rbynder@cityofpalmdesert.org

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Eric Ceja Principle Planner Palm Desert 73510 Fred Waring Drive Palm Desert CA 92260 eceja@cityofpalmdesert.org

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Charlie McClendon City Manager Cathedral City 68700 Avenida Lalo Guerrero Cathedral City CA 92234 CMcClendon@cathedralcity.gov

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Brenda Ramirez Associate Planner Cathedral City 68700 Avenida Lalo Guerrero Cathedral City CA 92234 bramirez@cathedralcity.gov

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Robert Rodriguez Director of Planning/Building Cathedral City 68700 Avenida Lalo Guerrero Cathedral City CA 92234 rrodriguez@cathedralcity.gov

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Christopher Freeland City Manager Indian Wells 44-950 Eldorado Drive Indian Wells CA 92210 cfreeland@indianwells.com

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Jon Berg Community Development Director Indian Wells 44-950 Eldorado Drive Indian Wells CA 92210 jberg@indianwells.com

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Luis Rubalcava Assistant Planner Indian Wells 44-950 Eldorado Drive Indian Wells CA 92210 Irubalcava@indianwells.com

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Isaiah Hagerman City Manager Rancho Mirage 69825 Highway 111 Rancho Mirage CA 92270 isaiahh@ranchomirageca.gov

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Ryan Molhoek, P.E. Senior Engineer Desert Water Agency



Indio Water Authority Your Water, Our Respo





Jeremy Gleim Director of Development Services Rancho Mirage 69825 Highway 111 Rancho Mirage CA 92270 jeremyg@ranchomirageca.gov

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David Ready City Manager Palm Springs 3200 E. Tahquitz Canyon Way Palm Springs CA 92262 David.Ready@palmspringsca.gov

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Chuck Maynard City Manager Desert Hot Springs 11-999 Palm Drive Desert Hot Springs CA 92240 citymanager@cityofdhs.org

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Mojahed Salama Deputy Director of Transportation and Land Management Riverside 4080 Lemon Street Riverside CA 92501 msalama@rctlma.org

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Jason Uhley General Manager Riverside 1995 Market St Riverside CA 92501 juhley@rcflood.org

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Mark Abbott Land Use & Water Supervisor Indio 47-950 Arabia St, Suite A Indio CA 92201 MAbbott@rivco.org

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Mark Meeler General Manager Bermuda Dunes 79-050 Avenue 42 Bermuda Dunes CA 92203 markmeeler@myomawater.com

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Doug Welmas Tribal Chairman Indio 84-245 Indio Springs Parkway Indio CA 92203 nmarkwardt@cabazonindians-nsn.gov

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Thomas Tortez, Jr. Tribal Chairman Thermal 66-725 Martinez Road Thermal CA 92274 thomas.tortez@torresmartinez-nsn.gov

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Otoniel Quiroz Natural Resources Manager Thermal 66-725 Martinez Road Thermal CA 92274 oquiroz@tmtanf.org

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Amanda Vance Tribal Chairman Coachella PO Box 846 Coachella CA 92236 avance@augustinetribe-nsn.gov

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Karen Kupcha Tribal Administrator Coachella PO Box 846 Coachella CA 92236 karen\_kupcha@eee.org

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Indio Water Authority





Darrell Mike Tribal Chairman Coachella 46200 Harrison Place Coachella CA 92236 29chairman@29palmsbomi-nsn.gov

Re: Notice of Intent to Update Urban Water Management Plan

Dear Mr. McMillen:

On behalf of the six participating agencies, this letter provides notice that six water agencies in the Coachella Valley are updating their Urban Water Management Plan (UWMP) and preparing a Regional UWMP to comply with the current requirements of the Urban Water Management Planning Act. The participating agencies are:

- Coachella Valley Water District
- Coachella Water Authority (City of Coachella)
- Desert Water Agency
- Indio Water Authority (City of Indio)
- Mission Springs Water District
- Myoma Dunes Mutual Water Company

The State of California requires urban water purveyors to update their UWMP every five years. Preparing a Regional UWMP will allow the six agencies to coordinate their efforts on demand projections and supply characterizations.

The agencies will be evaluating their previous UWMP and considering amendments and changes as required by the law. The agencies will be hosting a public workshop to gather input, and the draft RUWMP will be made available for public review before each agency's governing board holds a public hearing to gather input and consider adoption. The adopted RUWMP is due to be submitted to the State by July 1, 2021. More information and the draft RUWMP will be available at <a href="http://www.cvrwmg.org/uwmp/">http://www.cvrwmg.org/uwmp/</a>.

-Moll

Ryan Molhoek, P.E. Senior Engineer Desert Water Agency



Indio Water Authority Your Water, Our Responsibilit





Jose Mora Environmental Technician Coachella 46200 Harrison Place Coachella CA 92236 jmora@29palmsbomi-nsn.gov

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Ryan Molhoek, P.E. Senior Engineer Desert Water Agency



Indio Water Authority Your Water, Our Responsibility





February 24, 2021

Robert Martin Tribal Chairman Banning 12700 Pumarra Road Banning CA 92220 rmartin@morongo-nsn.gov

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-Moll

Ryan Molhoek, P.E. Senior Engineer Desert Water Agency









February 24, 2021

Yvonne Franco District Manager Indio 81077 Indio Blvd. Suite A Indio CA 92201 YFranco@cvrcd.com

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-Moll

Ryan Molhoek, P.E. Senior Engineer Desert Water Agency





Indio Water Authority Your Water, Our Responsibilit





February 24, 2021

Gretchen Gutierrez CEO Palm Desert 75100 Mediterranean Palm Desert CA 92211 gg@thedvba.org

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Ryan Molhoek, P.E. Senior Engineer Desert Water Agency













#### Notice of Availability and Public Review of

#### Draft 2020 Coachella Valley Regional Urban Water Management Plan,

#### Draft Water Shortage Contingency Plan, and

#### Appendix L Addendum to the 2015 Urban Water Management Plan

On behalf of the six participating agencies, this letter provides notice that six water agencies in the Coachella Valley have prepared a Draft 2020 Coachella Valley Regional Urban Water Management Plan (RUWMP), a Draft Water Shortage Contingency Plan (WSCP) for each agency, and an Appendix L Addendum to the 2015 Urban Water Management Plan (UWMP) for each agency.

The participating agencies are:

- Coachella Valley Water District
- Coachella Water Authority (City of Coachella)
- Desert Water Agency
- Indio Water Authority (City of Indio)
- Mission Springs Water District
- Myoma Dunes Mutual Water Company

The RUWMP describes the region's water supplies and anticipated demands through 2045. It also describes each agency's programs to encourage efficient water use. The WSCP for each agency describes the actions that could be taken during a water shortage to reduce demands. The agencies have coordinated their WSCPs to provide consistent shortage levels and response actions across the region.

Because the region receives imported water from the Sacramento-San Joaquin Delta (Delta), the agencies are required to demonstrate consistency with Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance. Draft Appendix L has been prepared to satisfy the requirement to demonstrate reduced reliance on the Delta. This appendix is included in the Draft 2020 RUWMP and will also be included as an addendum to each agency's 2015 UWMP.

These documents will be available for public review on each agency's web site. Each agency will hold a public hearing to hear comments before considering adoption of the plans. Information for each agency's public hearing is included in the table below. The table also includes a contact for questions or comments regarding the plans.

More information and the draft documents will also be available at <u>http://www.cvrwmg.org/uwmp/.</u>

	Hearing Date and	
Agency	Time	Agency Web Site for Hearing Details and Additional Information
Coachella Valley	Tuesday, June 22,	https://www.cvwd.org/151/Board-Agendas
Water District	2021	
	8:00 a.m.	https://www.cvwd.org/543/Urban-Water-Management-Planning
Coachella Water	Wednesday, June	https://www.coachella.org/city-government/city-
Authority (City of	23, 2021	council/agendas-and-minutes
Coachella)	6:00 p.m.	
Desert Water	Tuesday, June 15,	https://dwa.org/organization/board-agendas/
Agency	2021	
	8:00 a.m.	
Indio Water	Wednesday, June	https://www.indio.org/your government/city clerk/agendas.htm
Authority (City of	16, 2021	
Indio)	5:00 p.m.	
Mission Springs	Monday, June 21,	https://www.mswd.org/board.aspx
Water District	2021	
	3:00 p.m.	
Myoma Dunes	Tuesday, June 22,	http://www.myomawater.com/Board.aspx
Mutual Water	2021	
Company	2:00 p.m.	

Please address any comments or questions to:

Agency	Address	Contact	Email
Coachella Valley	P.O. Box 1058	Zoe Rodriguez del Rey,	ZRodriguezdelRey@cvwd.org
Water District	Coachella, CA 92236	Water Resources	
		Manager	
Coachella Water	1515 Sixth St.	Castulo Estrada,	cestrada@coachella.org
Authority (City of	Coachella, CA 92236	Utilities Manager	
Coachella)			
Desert Water Agency	1200 S Gene Autry Trail	Ashley Metzger,	ametzger@dwa.org
	Palm Springs, CA 92264	Outreach &	
		Conservation Manager	
Indio Water	83101 Avenue 45	Reymundo Trejo,	rtrejo@indio.org
Authority (City of	Indio, CA 92201	Assistant General	
Indio)		Manager	
Mission Springs	66575 Second Street	Victoria Llort,	vllort@mswd.org
Water District	Desert Hot Springs, CA	Programs & Public	
	92240	Affairs	
Myoma Dunes	79-050 Avenue 42	Mark Meeler,	markmeeler@myomawater.com
Mutual Water	Bermuda Dunes, CA	General Manager	
Company	92203		

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Ryan Molhoek, P.E. Senior Engineer Desert Water Agency

C

Appendix C: Demonstration of Reduced Delta Reliance

(Appendix L to 2015 UWMP)

#### Coachella Valley Regional Urban Water Management Plan

### Quantifying Regional Self-Reliance and Reduced Reliance on Water Supplies from the Delta Watershed

June 2021

## **1** Background

Under the Sacramento-San Joaquin Delta Reform Act of 2009, state and local public agencies proposing a covered action in the Delta, prior to initiating the implementation of that action, must prepare a written certification of consistency with detailed findings as to whether the covered action is consistent with applicable Delta Plan policies and submit that certification to the Delta Stewardship Council. Anyone may appeal a certification of consistency, and if the Delta Stewardship Council grants the appeal, the covered action may not be implemented until the agency proposing the covered action submits a revised certification of consistency, and either no appeal is filed, or the Delta Stewardship Council denies the subsequent appeal.

An urban water supplier that anticipates participating in or receiving water from a proposed covered action such as a multi-year water transfer, conveyance facility, or new diversion that involves transferring water through, exporting water from, or using water in the Delta should provide information in their 2015 and 2020 Urban Water Management Plans (UWMPs) that can then be used in the covered action process to demonstrate consistency with Delta Plan Policy WR P1, Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance (WR P1).

WR P1 details what is needed for a covered action to demonstrate consistency with reduced reliance on the Delta and improved regional self-reliance. WR P1 subsection (a) states that:

(a) Water shall not be exported from, transferred through, or used in the Delta if all of the following apply:

(1) One or more water suppliers that would receive water as a result of the export, transfer, or use have failed to adequately contribute to reduced reliance on the Delta and improved regional self-reliance consistent with all of the requirements listed in paragraph (1) of subsection (c);

(2) That failure has significantly caused the need for the export, transfer, or use; and

(3) The export, transfer, or use would have a significant adverse environmental impact in the Delta.

WR P1 subsection (c)(1) further defines what adequately contributing to reduced reliance on the Delta means in terms of (a)(1) above.

(c)(1) Water suppliers that have done all the following are contributing to reduced reliance on the Delta and improved regional self-reliance and are therefore consistent with this policy:

(A) Completed a current Urban or Agricultural Water Management Plan (Plan) which has been reviewed by the California Department of Water Resources for compliance with the applicable requirements of Water Code Division 6, Parts 2.55, 2.6, and 2.8;

(B) Identified, evaluated, and commenced implementation, consistent with the implementation schedule set forth in the Plan, of all programs and projects included in the Plan that are locally cost effective and technically feasible which reduce reliance on the Delta; and

(C) Included in the Plan, commencing in 2015, the expected outcome for measurable reduction in Delta reliance and improvement in regional self-reliance. The expected outcome for measurable reduction in Delta reliance and improvement in regional self-reliance shall be reported in the Plan as the reduction in the amount of water used, or in the percentage of water used, from the Delta watershed. For the purposes of reporting, water efficiency is considered a new source of water supply, consistent with Water Code section 1011(a).

The analysis and documentation provided below include all the elements described in WR P1(c)(1) that need to be included in a water supplier's UWMP to support a certification of consistency for a future covered action.

The analysis presented here was developed on behalf of the six agencies participating in the 2020 Coachella Valley Regional Urban Water Management Plan (RUWMP). These six agencies include:

- Coachella Valley Water District
- Coachella Water Authority
- Desert Water Agency
- Indio Water Authority
- Mission Springs Water District
- Myoma Dunes Mutual Water Company

This analysis is based on the water used to meet demands throughout the Coachella Valley.

## 2 Methodology

As stated in WR P1(c)(1)(C), the policy requires that, commencing in 2015, UWMPs include expected outcomes for improved regional self-reliance and measurable reduction in Delta reliance. WR P1 further states that those outcomes shall be reported in the UWMP as the reduction in the amount of water used, or in the percentage of water used, from the Delta. The expected outcomes for regional self-reliance and reduced Delta reliance were developed using the approach and guidance described in Appendix C of DWR's Urban Water Management Plan Guidebook 2020 issued in March 2020 (Guidebook Appendix C).

The methodology used to determine improved regional self-reliance and reduced Delta reliance is consistent with the approach detailed in DWR's UWMP Guidebook Appendix C, including the use of

narrative justifications for the accounting of supplies and the documentation of specific data sources. Some of the key assumptions include:

- All data were obtained from the current 2020 RUWMP, UWMPs from previous years, the Integrated Regional Water Management Plan, the Draft Indio Subbasin Alternative Plan Update, or the Draft Mission Creek Subbasin Alternative Plan Update. Demands represent average or normal water year conditions.
- All analyses were conducted at the service area level, and all data reflect the total contributions of the agencies as well as their customers.

To calculate the expected outcomes for improved regional self-reliance and reduced Delta reliance, a baseline is needed to compare against. This analysis uses a normal water year representation of 2010 as the baseline, which is consistent with the approach described in the Guidebook Appendix C.

# 3 Demonstration of Regional Self-Reliance

#### Demands without Water Use Efficiency

In alignment with the Guidebook Appendix C, this analysis uses normal water year demands, rather than normal water year supplies to calculate expected outcomes in terms of the percentage of water used. Using normal water year demands serves as a proxy for the amount of supplies that would be used in a normal water year, which helps alleviate issues associated with how supply capability is presented to fulfill requirements of the UWMP Act versus how supplies might be accounted for to demonstrate consistency with WR P1.

Because WR P1 considers water use efficiency savings a source of water supply, water suppliers that do not explicitly quantify water use efficiency savings in their UWMPs can calculate their embedded water use efficiency savings based on changes in forecasted per capita water use since the baseline. As explained in the Guidebook Appendix C, water use efficiency savings must be added back to the normal year demands to represent demands without water use efficiency savings accounted for; otherwise the effect of water use efficiency savings on regional self-reliance would be overestimated. Table C-1 shows the results of this estimation. Supporting narrative and documentation for the data shown in Table C-1 are provided below.

#### Demands with Water Use Efficiency

The demands shown in Table C-1 represent the water demands for the region, compiled from the previous documents mentioned above and current projections.

#### **Population**

Population was estimated using the previous UWMPs and the regional growth forecast prepared by the Southern California Association of Governments (SCAG).

#### Estimated Water Use Efficiency Since Baseline

Calculated using "Potable Demands with Water Use Efficiency" divided by "Population" and then calculating Estimated Water Use Efficiency Since Baseline by comparing with 2010 Per Capita Water Use.

#### Water Demands without Water Use Efficiency

Calculated by adding "Demands with Water Use Efficiency" to "Estimated Water Use Efficiency Since Baseline."

#### Supplies Contributing to Regional Self-Reliance

For a covered action to demonstrate consistency with the Delta Plan, WR P1 subsection (c)(1)(C) states that water suppliers must report the expected outcomes for measurable improvement in regional self-reliance. Table C-3 shows expected outcomes for supplies contributing to regional self-reliance both in amount and as a percentage. The numbers shown in Table C-3 represent efforts to improve regional self-reliance for all agencies and include the total contributions of the agencies and their customers. Supporting narratives and documentation for the data shown in Table C-3 are provided below.

#### Water Use Efficiency

The water use efficiency information shown in Table C-3 is taken directly from Table C-1.

#### Water Recycling

Estimates of water recycling volumes are based on previous UWMPs and current projections.

#### Local and Regional Water Supply and Storage Programs

The local and regional water supply and storage programs data shown in Table C-3 represent estimates by the participating agencies.

#### Conclusions

The results shown in Table C-3 demonstrate that the agencies are measurably improving regional selfreliance. In the long-term (2045), the expected outcome for normal water year regional self-reliance is an increase of approximately 17 percentage points from the 2010 baseline. The results show that as a region, the agencies and their customers are measurably reducing reliance on the Delta and improving regional self-reliance.

## 4 Demonstration of Reduced Reliance on the Delta

The agencies reduce reliance on the Delta through investments in non-Delta water supplies, local water supplies, and regional and local demand management measures. For reduced reliance on supplies from the Delta Watershed, the data used in this analysis represent the total regional efforts of the agencies and their customers.

#### Calculation of Reliance on Water Supplies from the Delta Watershed

The calculation of reliance on water supplies from the Delta watershed, shown in Table C-4, is based on the following assumptions. The agencies' supplies from the Delta watershed include:

- CVP/SWP Contract Supplies
- Other Water Supplies from the Delta Watershed.

#### CVP/SWP Contract Supplies

The supply data shown in Table C-4 is for SWP Table A allocations to CVWD and DWA. These values are based on the combined Table A amount for CVWD and DWA (194,100 AFY) and the historical average reliability as published in the SWP Delivery Capability Report.

#### Other Water Supplies from the Delta Watershed

Because this document demonstrates reduced reliance on the Delta and could be used to help support the approval of a future project, these supplies do not include any potential future projects that could be covered actions.

#### Change in Supplies from the Delta Watershed

Calculated by adding "CVP/SWP Contract Supplies" and "Other Water Supplies from the Delta Watershed" to get total Water Supplies from the Delta Watershed and calculates changes from the 2010 baseline.

#### Percent Change in Supplies from the Delta Watershed

Divides "Water Supplies from the Delta Watershed" by "Demands without Water Use Efficiency" and calculates changes from the 2010 baseline.

#### Conclusions

The results shown in Table C-4 demonstrate that the agencies are measurably reducing reliance on supplies from the Delta watershed. In the long term (2045), the expected outcome for normal water year reliance on supplies from the Delta is a decrease of approximately 5 percentage points from the 2010 baseline. The results show that as a region, the agencies and their customers are measurably reducing reliance on the Delta and improving regional self-reliance.

## **5 UWMP Implementation**

In addition to the analysis and documentation described above, WR P1 subsection (c)(1)(B) requires that all programs and projects included in the UWMP that are locally cost-effective and technically feasible, which reduce reliance on the Delta, are identified, evaluated, and implemented consistent with the implementation schedule. WR P1 (c)(1)(B) states that:

(B) Identified, evaluated, and commenced implementation, consistent with the implementation schedule set forth in the Plan, of all programs and projects included in the Plan that are locally cost effective and technically feasible which reduce reliance on the Delta[.]

In accordance with Water Code Section 10631(f), water suppliers must already include in their UWMP a detailed description of expected future projects and programs that they may implement to increase the amount of water supply available to them in normal and single-dry water years and for a period of drought

lasting five consecutive years. The UWMP description must also identify specific projects, include a description of the increase in water supply that is expected to be available from each project, and include an estimate regarding the implementation timeline for each project or program.

The 2020 RUWMP summarizes the implementation plan and continued progress in developing a diversified water portfolio to meet the region's water needs.

## 6 2015 UWMP Appendix L

The information contained in this appendix is also intended to be a new Appendix L attached to each agency's 2015 UWMP consistent with WR P1 subsection (c)(1)(C) (Cal. Code Regs. tit. 23, § 5003). The agencies provided notice of the availability of the draft 2020 RUWMP, 2021 WSCPs, and a new Appendix L to the 2015 UWMP and of a public hearing to consider adoption of the documents in accordance with CWC Sections 10621(b) and 10642, and Government Code Section 6066, and Chapter 17.5 (starting with Section 7290) of Division 7 of Title 1 of the Government Code. The public review drafts of the 2020 RUWMP, Appendix L to the 2015 UWMP, and the 2021 WSCPs were posted on each agency's website before the public hearings in June 2021. The notice of availability of the documents was published in local newspapers and was sent to cities and counties in each agency's service area. Copies of the notification letter sent to cities and counties are included in the 2020 RUWMP Appendix B. Thus, this Appendix C to the 2020 RUWMP, which was adopted with the 2020 RUWMP, will also be recognized and treated as Appendix L to each agency's 2015 UWMP.

Each agency held a public hearing for the draft 2020 RUWMP, draft Appendix L to the 2015 UWMP, and draft 2021 WSCP in June of 2021, at a regular Board of Directors meeting. Each agency's Board of Directors determined that the 2020 RUWMP and the 2021 WSCP accurately represent the water resources plan for the service area. In addition, each agency's Board of Directors determined that Appendix L to the 2015 UWMP (and Appendix C to the 2020 RUWMP) includes all of the elements described in Delta Plan Policy WR P1, Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance (Cal. Code Regs. tit. 23, § 5003), which need to be included in a water supplier's UWMP to support a certification of consistency for a future covered action. The Board of Directors adopted the 2020 RUWMP, Appendix L to the 2015 UWMP, and the 2021 WSCP and authorized their submittal to the State of California. Copies of the resolutions are included in the 2020 RUWMP Appendix H.

# **Reduced Reliance Calculation - Data Template**

Water Use Efficiency Demands (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Water Demands with Water Use Efficiency Accounted For	670,396	577,233	591,136	622,594	633,243	643,736	651,535	658,561
Non-Potable Water Demands		419,852	418,469	418,722	416,275	413,828	410,616	407,405
Potable Demands with Water Use Efficiency Accounted For		157,381	172,667	203,872	216,968	229,908	240,919	251,156
Total Population	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045
Population	481,800	496,853	507,951	592,237	639,654	687,782	734,493	781,710
Water Use Efficiency Since Baseline (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Per Capita Water Use (GPCD)	366	283	303	307	303	298	293	287
Change in Per Capita Water Use from Baseline (GPCD)		(83)	(62)	(58)	(63)	(67)	(73)	(79)
Estimated Water Use Efficiency Since Baseline (AF)		46,097	35,356	38,669	44,992	51,762	59,880	68,980

Table C-1: Optional Calculation of Water Use Efficiency - To be completed if Water Supplier does not specifically estimate Water Use Efficiency as a supply

## Table C-2: Calculation of Water Demands Without Water Use Efficiency

Total Water Demands (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Water Demands with Water Use Efficiency Accounted For	670,396	577,233	591,136	622,594	633,243	643,736	651,535	658,561
Reported Water Use Efficiency or Estimated Water Use Efficiency Since Baseline		46,097	35,356	38,669	44,992	51,762	59,880	68,980
Water Demands without Water Use Efficiency Accounted For	670,396	623,330	626,492	661,263	678,235	695,498	711,415	727,541

Water Supplies Contributing to Regional Self-Reliance (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Water Use Efficiency	-	46,097	35,356	38,669	44,992	51,762	59,880	68,980
Water Recycling	14,268	13,349	13,398	17,013	23,933	25,713	27,913	30,213
Stormwater Capture and Use								
Advanced Water Technologies								
Conjunctive Use Projects								
Local and Regional Water Supply and Storage Projects	412,587	437,587	462,387	488,890	498,390	498,390	498,390	498,390
Other Programs and Projects the Contribute to Regional Self-Reliance	11,600	11,600	11,187	11,187	11,187	11,187		
Water Supplies Contributing to Regional Self-Reliance	438,455	508,633	522,035	555,759	578,502	587,052	586,183	597,583
Water Demands without Water Use Efficiency (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Water Demands without Water Use Efficiency Accounted For	670,396	623,330	626,492	661,263	678,235	695,498	711,415	727,541
Change in Regional Self Reliance (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Water Supplies Contributing to Regional Self-Reliance	438,455	508,633	522,035	555,759	578,502	587,052	586,183	597,583
Change in Water Supplies Contributing to Regional Self-Reliance		70,178	83,580	117,304	140,047	148,597	147,728	159,128
					1			2045
Percent Change in Regional Self Reliance (As Percent of Demand w/out WUE)	Baseline (2010)	2015	2020	2025	2030	2035	2040	(Optional)
Percent Change in Regional Self Reliance		<b>2015</b> 81.6%	<b>2020</b> 83.3%	<b>2025</b> 84.0%	<b>2030</b> 85.3%	<b>2035</b> 84.4%	<b>2040</b> 82.4%	

Water Supplies from the Delta Watershed (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
CVP/SWP Contract Supplies		95,109	112,578	112,578	112,578	112,578	100,932	100,932
Delta/Delta Tributary Diversions								
Transfers and Exchanges								
Other Water Supplies from the Delta Watershed		651	651	651	651	651	651	651
Total Water Supplies from the Delta Watershed	124,224	95,760	113,229	113,229	113,229	113,229	101,583	101,583
Water Demands without Water Use Efficiency (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Water Demands without Water Use Efficiency Accounted For		623,330	626,492	661,263	678,235	695,498	711,415	727,541
Change in Supplies from the Delta Watershed (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Water Supplies from the Delta Watershed	124,224	95,760	113,229	113,229	113,229	113,229	101,583	101,583
Change in Water Supplies from the Delta Watershed		(28,464)	(10,995)	(10,995)	(10,995)	(10,995)	(22,641)	(22,641)
Percent Change in Supplies from the Delta Watershed (As a Percent of Demand w/out WUE)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Percent of Water Supplies from the Delta Watershed	18.5%	15.4%	18.1%	17.1%	16.7%	16.3%	14.3%	14.0%
Change in Percent of Water Supplies from the Delta Watershed		-3.2%	-0.5%	-1.4%	-1.8%	-2.2%	-4.3%	-4.6%

D

Appendix D: Standard DWR UWMP Tables E

# Appendix E: Standard SB X7-7 Tables

SB X7-7 Table 0: Units of Measure Used in UWMP* one from the drop down list)	(select
Acre Feet	
*The unit of measure must be consistent with Submittal Tab	le 2-3
NOTES:	

20 10- to 15-year	08 total water deliveries 08 total volume of delivered recycled water 08 recycled water as a percent of total deliveries	129,273 - 0%	Acre Feet Acre Feet
10- to 15-year 20	08 recycled water as a percent of total deliveries	- 0%	Acre Feet
10- to 15-year	, ,	0%	
			See Note 1
	Imber of years in baseline period <sup>1, 2</sup>	10	Years
Yea	ar beginning baseline period range	1999	
Yea	ar ending baseline period range <sup>3</sup>	2008	
Nu	mber of years in baseline period	5	Years
5-year Yea	Asseline period range Year ending baseline period range		
Yea			
	ered in 2008 is 10 percent or greater of total deliveries, the 10-15 year baselin the baseline period is between 10 and 15 years. However, DWR recognizes th lata.		
		2010	
	year baseline period must be between December 31, 2004 and December 31,	2010.	
The ending year for the 10-15			

SB X7-7 T	SB X7-7 Table 2: Method for Population Estimates					
	Method Used to Determine Population (may check more than one)					
	1. Department of Finance (DOF) or American Community Survey (ACS)					
	2. Persons-per-Connection Method					
	3. DWR Population Tool					
	<b>4. Other</b> DWR recommends pre-review					
NOTES:						

SB X7-7 Table 3: Service Area Population					
Y	ear	Population			
10 to 15 Ye	ear Baseline P	opulation			
Year 1	1999	182,524			
Year 2	2000	189,328			
Year 3	2001	196,133			
Year 4	2002	202,938			
Year 5	2003	209,742			
Year 6	2004	216,547			
Year 7	2005	223,351			
Year 8	2006	230,156			
Year 9	2007	236,960			
Year 10	2008	243,765			
Year 11					
Year 12					
Year 13					
Year 14					
Year 15					
5 Year Base	eline Populati	on			
Year 1	2003	209,742			
Year 2	2004	216,547			
Year 3	2005	223,351			
Year 4	2006	230,156			
Year 5	2007	236,960			
NOTES:					

					Deductions			Acre Feet
	l <b>ine Year</b> 7-7 Table 3	Volume Into Distribution System This column will remain blank until SB X7-7 Table 4-A is completed.	Exported Water	Change in Dist. System Storage (+/-)	Indirect Recycled Water This column will remain blank until SB X7-7 Table 4-B is completed.	Water Delivered for Agricultural Use	Process Water This column will remain blank until SB X7-7 Table 4-D is completed.	Annual Gross Water Use
10 to 15 Y	ear Baseline -	Gross Water Use						
Year 1	1999	106,805			-		-	106,805
Year 2	2000	117,547			-		-	117,547
Year 3	2001	116,916			-		-	116,916
Year 4	2002	123,219			-		-	123,219
Year 5	2003	121,231			-		-	121,231
Year 6	2004	124,139			-		-	124,139
Year 7	2005	121,737			-		-	121,737
Year 8	2006	134,988			-		-	134,988
Year 9	2007	129,871			-		-	129,871
Year 10	2008	129,273			-		-	129,273
Year 11	0	-			-		-	-
Year 12	0	-			-		-	-
Year 13	0	-			-		-	-
Year 14	0	-			-		-	-
Year 15	0	-			-		-	-
10 - 15 yea	ar baseline ave	erage gross water use						122,57
5 Year Bas	eline - Gross V	Vater Use						
Year 1	2003	121,231			-		-	121,233
Year 2	2004	124,139			-		-	124,139
Year 3	2005	121,737			-		-	121,73
Year 4	2006	134,988			-		-	134,988
Year 5	2007	129,871			-		-	129,87
5 year bas	eline average	gross water use						126,39
Units of	measure (AF,	MG , or CCF) must rem	ain consisten	t throughout th	ne UWMP, as r	eported in Tab	le 2-3.	

## SB X7-7 Table 4-A: Volume Entering the Distribution System(s)

Complete one table for each source.

Name of S	ource	Groundwater						
This wate	r source is:							
$\checkmark$	The supplier'							
	A purchased							
Fm SB X	<b>ine Year</b> 7-7 Table 3	Volume Entering Distribution System <sup>1</sup>	Meter Error Adjustment <sup>2</sup> <i>Optional</i> (+/-)	Corrected Volume Entering Distribution System				
10 to 15 Y	10 to 15 Year Baseline - Water into Distribution System							
Year 1	1999	106,805		106,805				
Year 2	2000	117,547		117,547				
Year 3	2001	116,916		116,916				
Year 4	2002	123,219		123,219				
Year 5	2003	121,231		121,231				
Year 6	2004	124,139		124,139				
Year 7	2005	121,737		121,737				
Year 8	2006	134,988		134,988				
Year 9	2007	129,871		129,871				
Year 10	2008	129,273		129,273				
Year 11	0			-				
Year 12	0			-				
Year 13	0			-				
Year 14	0			-				
Year 15	0			-				
5 Year Bas	eline - Water	into Distribution Sy	vstem					
Year 1	2003	121,231		121,231				
Year 2	2004	124,139		124,139				
Year 3	2005	121,737		121,737				
Year 4	2006	134,988		134,988				
Year 5	2007	129,871		129,871				
4								

<sup>1</sup> Units of measure (AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.

<sup>2</sup> Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document

NOTES:

SB X7-7 T	able 5: Basel	ine Gallons Per	Capita Per Day (G	PCD)	
Baseline Year Fm SB X7-7 Table 3		Service Area Population <i>Fm SB X7-7</i> <i>Table 3</i>	Annual Gross Water Use <i>Fm SB X7-7</i> Table 4	Daily Per Capita Water Use (GPCD)	
10 to 15 Ye	ear Baseline G	PCD	-		
Year 1	1999	182,524	106,805	522	
Year 2	2000	189,328	117,547	554	
Year 3	2001	196,133	116,916	532	
Year 4	2002	202,938	123,219	542	
Year 5	2003	209,742	121,231	516	
Year 6	2004	216,547	124,139	512	
Year 7	2005	223,351	121,737	487	
Year 8	2006	230,156	134,988	524	
Year 9	2007	236,960	129,871	489	
Year 10	2008	243,765	129,273	473	
Year 11	0	-	-		
Year 12	0	-	-		
Year 13	0	-	-		
Year 14	0	-	-		
Year 15	0	-	-		
10-15 Year	· Average Base	eline GPCD		515	
5 Year Bas	eline GPCD				
	<b>ine Year</b> 7-7 Table 3	Service Area Population <i>Fm SB X7-7</i> <i>Table 3</i>	Gross Water Use Fm SB X7-7 Table 4	Daily Per Capita Water Use	
Year 1	2003	209,742	121,231	516	
Year 2	2004	216,547	124,139	512	
Year 3	2005	223,351	121,737	487	
Year 4	2006	230,156	134,988	524	
Year 5	2007	236,960	129,871	489	
5 Year Ave	rage Baseline	GPCD		505	
NOTES:					

<b>SB X7-7 Table 6: Baseline GPC</b> From Table SB X7-7 Table 5	<b>D</b> Summary
10-15 Year Baseline GPCD	515
5 Year Baseline GPCD	505
NOTES:	

Та	rget Method	Supporting Tables
$\checkmark$	Method 1	SB X7-7 Table 7A
	Method 2	SB X7-7 Tables 7B, 7C, and 7D
	Method 3	SB X7-7 Table 7-E
	Method 4	Method 4 Calculator Located in the WUE Data Portal at wuedata.water.ca.gov Resources button
NOTES	5:	

SB X7-7 Table 7-A: Target Method 20% Reduction	1
10-15 Year Baseline GPCD	2020 Target GPCD
515	412
NOTES:	

		2	Calculated 2020 Target <sup>2</sup>							
5 Year Baseline GPCD Maximum 2020 As calculated by Special Situations <sup>3</sup> Confirmed 20										
From SB X7-7 Table 5     Target <sup>1</sup> supplier in this SB X7-7 Verification Form     Population     Target <sup>4</sup>										
<b>5</b> 05 <b>4</b> 80 412 <b>412</b>										
<sup>1</sup> Maximum 2020 Target is <sup>2</sup> Calculated 2020 Target is corresponding tables for ag <sup>3</sup> Prorated targets and popu Appendix P, Section P.3 Confirmed Target is the less NOTES:	the target calculated ency's calculated targ llation weighted targ	by the Supplier based et. Supplier may only e <b>et</b> are allowed for spe	on the selected Targ enter one calculated ecial situations only.	et Method, see SE target. These situations a	re described in 4					

SB X7-7 Table 0: Units of Measure Used in UWMP* one from the drop down list)	(select
Acre Feet	
*The unit of measure must be consistent with Submittal Tab	le 2-3
NOTES:	

10- to 15-year       2008 total volume of delivered recycled water       4,079       Acre Fe         2008 recycled water as a percent of total deliveries       10%       See Not         Number of years in baseline period <sup>1, 2</sup> 10       Years         Year beginning baseline period range       1996       Years         Year ending baseline period range <sup>3</sup> 2005         S-year       Number of years in baseline period range       2004         Year beginning baseline period range       2004       Years         Year ending baseline period range <sup>4</sup> 2008       Years         If the 2008 recycled water delivery is less than 10 percent of total water deliveries, the 10-15 year baseline period is a continuous 10-year perion       Year baseline period is 0 percent or greater of total deliveries, the 10-15 year baseline period is a continuous 10-year perion         mount of recycled water delivered in 2008 is 10 percent or greater of total deliveries, the 10-15 year baseline period is a continuous 10-year perion       Year period is a continuous 10-year perion         The water Code requires that the baseline period is between 10 and 15	Baseline	Parameter	Value	Units				
10- to 15-year       2008 recycled water as a percent of total deliveries       10%       See Not         baseline period       Number of years in baseline period <sup>1,2</sup> 10       Years         Year ending baseline period range       1996       1996         Year ending baseline period range <sup>3</sup> 2005         S-year       Number of years in baseline period range <sup>3</sup> 2005         Year ending baseline period range <sup>3</sup> 2004       10         Year ending baseline period range       2004       10         Year ending baseline period range <sup>4</sup> 2008       10%         If the 2008 recycled water delivery is less than 10 percent of total water deliveries, then the 10-15 year baseline period is a continuous 10-year perion       10 years of total water delivered in 2008 is 10 percent or greater of total deliveries, the 10-15 year baseline period is a continuous 10-year perion         The Water Code requires that the baseline period is between 10 and 15 years. However, DWR recognizes that some water suppliers may not have the         minimum 10 years of baseline data.       1         The ending year for the 10-15 year baseline period must be between December 31, 2004 and December 31, 2010.		2008 total water deliveries	41,430	Acre Feet				
10-to 15-year       Number of years in baseline period <sup>1,2</sup> 10       Years         Year beginning baseline period range       1996       1996         Year ending baseline period range <sup>3</sup> 2005         S-year       Number of years in baseline period range       2005         Mumber of years in baseline period range       2005         Year ending baseline period range       2004         Year ending baseline period range       2004         Year ending baseline period range <sup>4</sup> 2008         If the 2008 recycled water delivery is less than 10 percent of total water deliveries, then the 10-15 year baseline period is a continuous 10-year perion         amount of recycled water delivered in 2008 is 10 percent or greater of total deliveries, the 10-15 year baseline period is a continuous 10-year perion         The Water Code requires that the baseline period is between 10 and 15 years. However, DWR recognizes that some water suppliers may not have the minimum 10 years of baseline data.         The ending year for the 10-15 year baseline period must be between December 31, 2004 and December 31, 2010.		2008 total volume of delivered recycled water 4,079 Acre Feet						
baseline period       Number of years in baseline period <sup>1, 2</sup> 10       Years         Year beginning baseline period range       1996       1996       1996         Year ending baseline period range <sup>3</sup> 2005       10       10         S-year       Number of years in baseline period range <sup>3</sup> 2005       10         Year beginning baseline period range       2004       10       10         Year beginning baseline period range       2004       10       10         Year ending baseline period range <sup>4</sup> 2008       10       10         If the 2008 recycled water delivery is less than 10 percent of total water deliveries, then the 10-15 year baseline period is a continuous 10-year perion imount of recycled water delivered in 2008 is 10 percent or greater of total deliveries, the 10-15 year baseline period is a continuous 10-year perion imount of recycled water delivered in 2008 is 10 percent or greater of total deliveries, the 10-15 year baseline period is a continuous 10-year perion innum 10 years of baseline period is between 10 and 15 years. However, DWR recognizes that some water suppliers may not have the ininimum 10 years for the 10-15 year baseline period must be between December 31, 2004 and December 31, 2010.	10- to 15-vear	2008 recycled water as a percent of total deliveries	10%	See Note 1				
S-year         Number of years in baseline period range <sup>3</sup> 2005           Mumber of years in baseline period         5         Year           baseline period         5         Year           Year ending baseline period range <sup>4</sup> 2004         Year           Year ending baseline period range <sup>4</sup> 2008         Year           If the 2008 recycled water delivery is less than 10 percent of total water deliveries, then the 10-15 year baseline period is a continuous 10-year perion amount of recycled water delivered in 2008 is 10 percent or greater of total deliveries, the 10-15 year baseline period is a continuous 10-year perion amount of recycled water delivered in 2008 is 10 percent or greater of total deliveries, the 10-15 year baseline period is a continuous 10-year perion innimum 10 years of baseline period is between 10 and 15 years. However, DWR recognizes that some water suppliers may not have the innimum 10 years for the 10-15 year baseline period must be between December 31, 2004 and December 31, 2010.	•	Number of years in baseline period <sup>1, 2</sup>	10	Years				
S-year baseline period         S         Years           Year beginning baseline period range         2004           Year ending baseline period range <sup>4</sup> 2008           If the 2008 recycled water delivery is less than 10 percent of total water deliveries, then the 10-15 year baseline period is a continuous 10-year perion imount of recycled water delivered in 2008 is 10 percent or greater of total deliveries, the 10-15 year baseline period is a continuous 10-year perion           The Water Code requires that the baseline period is between 10 and 15 years. However, DWR recognizes that some water suppliers may not have the inimium 10 years of baseline data.           The ending year for the 10-15 year baseline period must be between December 31, 2004 and December 31, 2010.		Year beginning baseline period range	1996					
5-year         Year beginning baseline period range         2004           Year ending baseline period range <sup>4</sup> 2008           If the 2008 recycled water delivery is less than 10 percent of total water deliveries, then the 10-15 year baseline period is a continuous 10-year perion amount of recycled water delivered in 2008 is 10 percent or greater of total deliveries, then the 10-15 year baseline period is a continuous 10-year perion amount of recycled water delivered in 2008 is 10 percent or greater of total deliveries, the 10-15 year baseline period is a continuous 10-year perion amount of recycled water delivered in 2008 is 10 percent or greater of total deliveries, the 10-15 year baseline period is a continuous 10-year perion and 15 years. However, DWR recognizes that some water suppliers may not have the minimum 10 years of baseline data.           The ending year for the 10-15 year baseline period must be between December 31, 2004 and December 31, 2010.		Year ending baseline period range <sup>3</sup>	2005					
baseline period         Year beginning baseline period range         2004           Year ending baseline period range <sup>4</sup> 2008           If the 2008 recycled water delivery is less than 10 percent of total water deliveries, then the 10-15 year baseline period is a continuous 10-year perior amount of recycled water delivered in 2008 is 10 percent or greater of total deliveries, the 10-15 year baseline period is a continuous 10-year perior           The Water Code requires that the baseline period is between 10 and 15 years. However, DWR recognizes that some water suppliers may not have the minimum 10 years of baseline data.           The ending year for the 10-15 year baseline period must be between December 31, 2004 and December 31, 2010.	<b>F</b>	Number of years in baseline period	5	Years				
Year ending baseline period range"         2008           If the 2008 recycled water delivery is less than 10 percent of total water deliveries, then the 10-15 year baseline period is a continuous 10-year perior           If the 2008 recycled water delivered in 2008 is 10 percent or greater of total deliveries, then 10-15 year baseline period is a continuous 10-year perior           The Water Code requires that the baseline period is between 10 and 15 years. However, DWR recognizes that some water suppliers may not have the ininimum 10 years of baseline data.           The ending year for the 10-15 year baseline period must be between December 31, 2004 and December 31, 2010.	•	5-year Year beginning baseline period range 2004						
mount of recycled water delivered in 2008 is 10 percent or greater of total deliveries, the 10-15 year baseline period is a continuous 10- to 15-year p The Water Code requires that the baseline period is between 10 and 15 years. However, DWR recognizes that some water suppliers may not have th ninimum 10 years of baseline data. The ending year for the 10-15 year baseline period must be between December 31, 2004 and December 31, 2010.	baseline period							
				ıs 10-year period. If t				
The ending year for the 5 year baseline period must be between December 31, 2007 and December 31, 2010.	If the 2008 recycled wat mount of recycled wate The Water Code require ninimum 10 years of bas	er delivery is less than 10 percent of total water deliveries, then the 10-15year bas delivered in 2008 is 10 percent or greater of total deliveries, the 10-15 year basel s that the baseline period is between 10 and 15 years. However, DWR recognizes t eline data.	eline period is a continuou ine period is a continuous hat some water suppliers	10- to 15-year period				
NOTES: Water use reported in Appendix J of 2015 UWMP	If the 2008 recycled wat mount of recycled water The Water Code require ninimum 10 years of bas The ending year for the	er delivery is less than 10 percent of total water deliveries, then the 10-15year bas delivered in 2008 is 10 percent or greater of total deliveries, the 10-15 year basel s that the baseline period is between 10 and 15 years. However, DWR recognizes t eline data.	eline period is a continuou ine period is a continuous hat some water suppliers , 2010.	10- to 15-year period				

SB X7-7 T	able 2: Method for Population Estimates
	Method Used to Determine Population (may check more than one)
	<b>1. Department of Finance</b> (DOF) or <b>American Community</b> <b>Survey</b> (ACS)
	2. Persons-per-Connection Method
	3. DWR Population Tool
	<b>4. Other</b> DWR recommends pre-review
	ethodology to calculated equivalent population for esidents approved by DWR.

SB X7-7 Table 3: Service Area Population					
Y	ear	Population			
10 to 15 Ye	ear Baseline P	opulation			
Year 1	1996	62,661			
Year 2	1997	62,866			
Year 3	1998	63,071			
Year 4	1999	63,276			
Year 5	2000	63,481			
Year 6	2001	63,686			
Year 7	2002	63,891			
Year 8	2003	64,096			
Year 9	2004	64,301			
Year 10	2005	64,506			
Year 11					
Year 12					
Year 13					
Year 14					
Year 15					
5 Year Base	eline Populati	on			
Year 1	2004	64,301			
Year 2	2005	64,506			
Year 3	2006	64,711			
Year 4	2007	64,916			
Year 5	2008	65,121			
NOTES: Po methodolo		ulated using approved			

					Deductions			Acre Feet
	<b>line Year</b> (7-7 Table 3	Volume Into Distribution System This column will remain blank until SB X7-7 Table 4-A is completed.	Exported Water	Change in Dist. System Storage (+/-)	Indirect Recycled Water This column will remain blank until SB X7-7 Table 4-B is completed.	Water Delivered for Agricultural Use	Process Water This column will remain blank until SB X7-7 Table 4-D is completed.	Annual Gross Water Use
10 to 15 Y	'ear Baseline -	Gross Water Use						
Year 1	1996	42,310			-		-	42,310
Year 2	1997	40,080			-		-	40,080
Year 3	1998	40,080			-		-	40,080
Year 4	1999	42,210			-		-	42,210
Year 5	2000	42,690			-		-	42,690
Year 6	2001	42,135			-		-	42,135
Year 7	2002	43,440			-		-	43,440
Year 8	2003	41,440			-		-	41,440
Year 9	2004	44,635			-		-	44,635
Year 10	2005	43,070			-		-	43,070
Year 11	0				-		-	-
Year 12	0				-		-	-
Year 13	0				-		-	-
Year 14	0	-			-		-	-
Year 15	0				-		-	-
10 - 15 yea	ar baseline ave	erage gross water use						42,20
5 Year Bas	seline - Gross \	Water Use						
Year 1	2004	44,635			-		-	44,635
Year 2	2005	43,070			-		-	43,070
Year 3	2006	44,780			-		-	44,780
Year 4	2007	44,580			-		-	44,580
Year 5	2008	41,430			-		-	41,430
5 year bas	eline average	gross water use						43,69
* Units of	measure (AF,	MG , or CCF) must rem	ain consisten	t throughout th	ne UWMP, as r	eported in Tab	le 2-3.	

## SB X7-7 Table 4-A: Volume Entering the Distribution System(s)

Complete one table for each source.

•							
Name of Source		Potable Water System					
This water source is:							
$\checkmark$	The supplier's own water source						
	A purchased or imported source						
<b>Baseline Year</b> Fm SB X7-7 Table 3		Volume Entering Distribution System <sup>1</sup>	Meter Error Adjustment <sup>2</sup> <i>Optional</i> (+/-)	Corrected Volume Entering Distribution System			
10 to 15 Year Baseline - Water into Distribution System							
Year 1	1996	42,310		42,310			
Year 2	1997	40,080		40,080			
Year 3	1998	40,080		40,080			
Year 4	1999	42,210		42,210			
Year 5	2000	42,690		42,690			
Year 6	2001	42,135		42,135			
Year 7	2002	43,440		43,440			
Year 8	2003	41,440		41,440			
Year 9	2004	44,635		44,635			
Year 10	2005	43,070		43,070			
Year 11	0			-			
Year 12	0			-			
Year 13	0			-			
Year 14	0			-			
Year 15	0			-			
5 Year Baseline - Water into Distribution System							
Year 1	2004	44,635		44,635			
Year 2	2005	43,070		43,070			
Year 3	2006	44,780		44,780			
Year 4	2007	44,580		44,580			
Year 5	2008	41,430		41,430			
1							

<sup>1</sup> Units of measure (AF, MG, or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.

<sup>2</sup> Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document

NOTES:

SB X7-7 Ta	able 5: Basel	ine Gallons Per	Capita Per Day (G	PCD)	
Baseline Year Fm SB X7-7 Table 3		Service Area Population Fm SB X7-7 Table 3	Annual Gross Water Use Fm SB X7-7 Table 4	Daily Per Capita Water Use (GPCD)	
	ear Baseline G				
Year 1	1996	62,661	42,310	603	
Year 2	1997	62,866	40,080	569	
Year 3	1998	63,071	40,080	567	
Year 4	1999	63,276	42,210	596	
Year 5	2000	63,481	42,690	600	
Year 6	2001	63,686	42,135	591	
Year 7	2002	63,891	43,440	607	
Year 8	2003	64,096	41,440	577	
Year 9	2004	64,301	44,635	620	
Year 10	2005	64,506	43,070	596	
Year 11	0	-	-		
Year 12	0	-	-		
Year 13	0	-	-		
Year 14	0	-	-		
Year 15	0	-	-		
10-15 Year	Average Base	eline GPCD		593	
5 Year Bas	eline GPCD				
<b>Baseline Year</b> Fm SB X7-7 Table 3		Service Area Population <i>Fm SB X7-7</i> <i>Table 3</i>	Gross Water Use Fm SB X7-7 Table 4	Daily Per Capita Water Use	
Year 1	2004	64,301	44,635	620	
Year 2	2005	64,506	43,070	596	
Year 3	2006	64,711	44,780	618	
Year 4	2007	64,916	44,580	613	
Year 5	2008	65,121	41,430	568	
5 Year Average Baseline GPCD 603					
NOTES:					

<b>SB X7-7 Table 6: Baseline GPC</b> From Table SB X7-7 Table 5	<b>D</b> Summary
10-15 Year Baseline GPCD	593
5 Year Baseline GPCD	603
NOTES:	

Target Method		Supporting Tables		
$\checkmark$	Method 1	SB X7-7 Table 7A		
	Method 2	SB X7-7 Tables 7B, 7C, and 7D		
	Method 3	SB X7-7 Table 7-E		
	Method 4	Method 4 Calculator Located in the WUE Data Portal at wuedata.water.ca.gov Resources button		
NOTES	5:			

SB X7-7 Table 7-A: Target Method 20% Reduction	1
10-15 Year Baseline GPCD	2020 Target GPCD
593	474
NOTES:	

	Maximum 2020 Target <sup>1</sup>	Calculated 2020 Target <sup>2</sup>			
5 Year Baseline GPCD		As calculated by supplier in this SB X7-7 Verification Form	Special Situations <sup>3</sup>		Confirmed 2020
From SB X7-7 Table 5			Prorated 2020 Target	Population Weighted Average 2020 Target	Target <sup>4</sup>
603	573	474			474
Maximum 2020 Target is Calculated 2020 Target is	the target calculated	by the Supplier based		et Method, see SI	3 X7-7 Table 7 and

F

# Appendix F: Water Management Agreements

# AMENDED AND RESTATED AGREEMENT BETWEEN THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA, COACHELLA VALLEY WATER DISTRICT, AND DESERT WATER AGENCY FOR THE EXCHANGE AND ADVANCE DELIVERY OF WATER

This 2019 Amended and Restated Agreement for Exchange and Advance Delivery of Water (Agreement) is made this 11th day of December, 2019 by THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA (Metropolitan), COACHELLA VALLEY WATER DISTRICT (Coachella), and DESERT WATER AGENCY (Desert). Metropolitan, Coachella, and Desert are individually referred to as a "Party" and collectively as "Parties."

#### RECITALS

A. Metropolitan is a metropolitan water district organized under the Metropolitan Water District Act, codified at section 109-1, et seq. of West's Appendix to the California Water Code, and engaged in developing, storing, and distributing water in the counties of Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura. Metropolitan is a State Water Project (SWP) contractor and receives water through the SWP. Metropolitan also owns and operates the Colorado River Aqueduct through which Metropolitan receives Colorado River water.

B. Coachella is a county water district organized under the California County Water District Law, codified at section 30000, et seq. of the California Water Code, and utilizes Colorado River water in Riverside County for groundwater recharge as well as potable and irrigation purposes.

C. Desert is an independent special district organized under the Desert Water Agency Law, codified at section 100-1, et seq. of West's Appendix to the California Water Code, and also utilizes Colorado River water in Riverside County for groundwater recharge purposes.

D. Coachella and Desert are SWP contractors without physical connections to the SWP. Rather than construct physical connections to the SWP, Coachella and Desert entered into separate agreements in 1967 with Metropolitan (1967 Exchange Agreements) under which Coachella and Desert deliver their State Project Water to Metropolitan, and in exchange, Metropolitan delivers a like amount of Colorado River water to Coachella and Desert.

E. In 1983, Metropolitan entered into new separate exchange agreements with Coachella ("Agreement Between the Metropolitan Water District of Southern California and the Coachella Valley Water District for Exchange of Water") and Desert ("Agreement Between the Metropolitan Water District of Southern California and Desert Water Agency for Exchange of Water") (collectively, the "1983 Exchange Agreements") which continued the prior exchange arrangements with certain modifications and expressly superseded the 1967 Exchange Agreements.

F. In 1984, the Parties entered into the "Advance Delivery Agreement" which allowed Metropolitan to deliver Colorado River water to be credited against Metropolitan's future water exchange obligations under the 1983 Exchange Agreements.

G. In 2003, the Parties entered into "The 2003 Exchange Agreement" which amended the 1983 Exchange Agreements and the Advance Delivery Agreement. The 2003 Exchange Agreement also provided for: the transfer from Metropolitan to Coachella and Desert of 100,000 acre-feet per year of Metropolitan's Annual Table A Amount from the SWP along

with the associated annual fixed and variable charges and the corresponding exchange of a like quantity of Metropolitan's Colorado River water or credits pursuant to the Advance Delivery Agreement; an annual option for Metropolitan to call-back the 100,000 acre-foot transfer under certain conditions and to reimburse Coachella and Desert for those SWP charges in that year; and a process by which the Parties would agree to operating criteria in order to better coordinate delivery and financial transactions.

H. Also in 2003, the Parties entered into separate amendments to their respective SWP Agreements with the Department of Water Resources (DWR) which approved the Parties' Table A transfers pursuant to The 2003 Exchange Agreement. (Amendment No. 18 to the Water Supply Contract between DWR and Coachella dated October 10, 2003; Amendment No. 18 to the Water Supply Contract between DWR and Desert dated November 3, 2003; Amendment Nos. 27 and 28 to the Water Supply Contracts between DWR and Metropolitan dated October 24, 2003.)

I. In 2004 and 2007, the Parties entered into letter agreements that established operating criteria pursuant to the 2003 Exchange Agreement. (November 9, 2004 Letter Agreement Regarding Implementation of 2003 Exchange Agreement and November 19, 2007 Letter Agreement Regarding Implementation of 2003 Exchange Agreement – Establishment of Long-Term Operating Criteria, collectively the "2004 and 2007 Letter Agreements".) The 2004 and 2007 Letter Agreements included provisions for the Parties to consider adding water to the amounts of Table A SWP water agreed upon for exchange.

J. In 2012, Metropolitan and Coachella entered into a letter agreement pursuant to the 2004 and 2007 Letter Agreements which provided the terms and conditions for the annual

delivery and exchange of up to 16,500 acre-feet of non-Table A SWP water that Rosedale Rio Bravo Water Storage District provides to Coachella (2012 Rosedale Letter Agreement).

K. In administering the various agreements, the Parties have gained operational experience and thus desire through this Amendment to better manage their water supplies.

L. The purposes of this Agreement are to: amend and restate, and to consolidate into this agreement the provisions of the various agreements setting forth the manner in which the exchanges, advance deliveries, and credits in those agreements will be implemented; end Metropolitan's right to call back 100,000 acre-feet of Table A water; allow Metropolitan to defer certain Colorado River water deliveries to Coachella and Desert; more equitably share among the Parties the operational benefits and risks of available SWP supplies; provide for Coachella and Desert to participate with Metropolitan in sharing water management costs in wetter years; and simplify the payment structure.

M. Thus, in consideration of the mutual covenants of the Parties and for good and valuable consideration the receipt and sufficiency of which are hereby acknowledged, it is hereby agreed as follows:

#### AGREEMENT

#### 1. **Definitions**

Article 21 Supplies – State Project Water made available to the Parties in any year pursuant to Article 21 of the State Water Contracts.

Carryover Supplies – State Project Water stored by a Party in State Water Project surface conservation facilities pursuant to the State Water Contracts.

Colorado River Aqueduct – The Aqueduct system owned and operated by Metropolitan, and used for the transport of water from Lake Havasu on the Colorado River to Lake Mathews in Riverside County.

Exchange Water – Colorado River water delivered to Coachella and Desert by Metropolitan from the Colorado River Aqueduct in exchange for Coachella's and Desert's State Project Water.

Multi-Year Supplies – Water resulting from the contracts and projects listed in Exhibit A of this Agreement, which may be modified by the Parties in writing.

Single-Year Supplies – Water resulting from the contracts and projects listed in Exhibit B of this Agreement, which may be modified by the Parties in writing.

State Project Water – All water which Coachella and Desert have rights to receive under their State Water Contracts including, but not limited to, water Coachella and Desert may acquire from other sources that is conveyed through the State Water Project.

State Water Contracts – The Contract between Coachella and the State of California, dated March 29, 1963, the Contract between Desert and the State of California, dated October 17, 1962, and the Contract between Metropolitan and the State of California, dated November 4, 1960, including all past and future amendments to each such contract, for an imported water supply from the State Water Project.

State Water Project (SWP) – Part of the State Water Resources Development System, authorized and constructed under Section 12930, et seq. of the Water Code, to deliver water to various public agencies throughout the State, including the Parties.

Table A Amount – Each Party's Table A Amount pursuant to its contract with DWR at the time of execution of this Agreement, which for Metropolitan is 1,911,500 acre-feet, for Coachella is 138,350 acre-feet, and for Desert is 55,750 acre-feet.

# 2. Prior Agreements Amended and Restated

This Agreement amends and restates the following prior agreements among the Parties:

A. Agreement Between The Metropolitan Water District of Southern California and the Coachella Valley Water District for Exchange of Water, dated July 7, 1983.

B. Agreement Between The Metropolitan Water District of Southern California and Desert Water Agency for Exchange of Water, dated July 7, 1983.

C. Advance Delivery Agreement, dated June 28, 1984.

D. The 2003 Exchange Agreement, dated October 24, 2003.

E. Letter Agreement Regarding Implementation of 2003 Exchange Agreement, dated November 9, 2004.

F. Letter Agreement Regarding Implementation of 2003 Exchange Agreement – Establishment of Long-Term Operating Criteria, dated November 19, 2007.

G. Letter Agreement Between The Metropolitan Water District of Southern California and the Coachella Valley Water District regarding Agreement to Deliver non-State Water Project Water in Exchange for Colorado River Water, dated November 13, 2012.

# 3. <u>Coordination Committee</u>

Each Party will designate one person to form a Coordination Committee. The purpose of the Coordination Committee is to provide an opportunity to share information among the Parties regarding water management, and to ensure that any current and potential actions taken are consistent with the goals of this Agreement. The person designated by Metropolitan to be on the

Coordination Committee will be the Chairperson until another Chairperson is selected by majority vote of the Coordination Committee. The Coordination Committee may elect a new Chairperson at any time. The Chairperson will schedule meetings (at least quarterly, and as conditions dictate) and record meeting minutes. Metropolitan will inform the Coordination Committee of potential capacity and other operational constraints as conditions change during the year.

#### 4. Exchange of Water

# A. Exchange of Table A Amounts and Multi-Year Supplies

1. Metropolitan will accept delivery of Coachella's and Desert's Table A Amounts and exchange them for equal quantities of Metropolitan's Exchange Water as provided by this Agreement.

2. Metropolitan will accept delivery of Coachella's and Desert's Multi-Year Supplies and exchange them for equal quantities of Metropolitan's Exchange Water as listed in Exhibit A to this Agreement. The Parties may agree in writing to include additional Multi-Year Supplies in Exhibit A, which will be exchanged in the same manner.

3. There may be limitations on Metropolitan's ability to take delivery of all available Table A Amounts and Multi-Year Supplies in any year. Such limitations include, but are not limited to, insufficient demands within Metropolitan's service area, capacity constraints on the East Branch of the SWP, and the Parties' storage program capacities. These limitations may result in unused Table A Amounts that cannot be scheduled with DWR for delivery within the calendar year. If Metropolitan determines that any such limitations exist, Metropolitan will consult with the Coordination

Committee and will attempt to leave Table A amounts unscheduled at the end of the calendar year for each Party in amounts proportional to the sum of the Parties' Table A Amounts and Multi-Year Supplies.

4. There may be limitations on Metropolitan's ability in a calendar year to take delivery of the Table A Amounts, Multi-Year Supplies, and any Table A Amounts and Multi-Year Supplies that were previously carried over of each Party proportionally by Table A Amounts and Multi-Year Supplies. Such limitations include, but are not limited to, the differential spill of each Party's Carryover Supplies under DWR's spill accounting methodology. In any calendar year that such limitations apply, Metropolitan may take delivery of a higher proportion of one Party's supplies than another Party's supplies, so as to minimize losses due to spills or other causes. Metropolitan will keep an annual record of the deliveries taken from each Party's supplies and will adjust future water orders as necessary in an attempt to make up any delivery imbalance when operational opportunities arise. To the extent that Metropolitan receives a higher percentage of Table A Amounts and Multi-Year Supplies than Coachella or Desert during a year, that amount of water will count against Metropolitan's right to 200,000 acre-feet of advance credit under Section 5.C. [Credit of Advance Deliveries Against Metropolitan's Exchange Obligations]. In the event that at the end of any year, the cumulative delivery balance to any Party exceeds 5,000 acre-feet, and if Metropolitan is unable within five years thereafter to make the necessary adjustments to restore the proportional delivery of Table A Amounts and Multi-Year Supplies, the Parties will reconcile the water delivery imbalance by adjusting deliveries of Exchange Water, and

will make any necessary financial adjustments to keep the Parties financially whole, as follows:

a. If at the end of five years, Metropolitan has received a disproportionately higher amount of Table A Amounts and Multi-Year Supplies than Coachella and Desert, then Metropolitan will increase the Exchange Water deliveries to Coachella and Desert by an amount equal to the disproportionate amount of water Metropolitan received, and Coachella and Desert will reimburse Metropolitan for the variable transportation charges that Metropolitan paid DWR to move the water through SWP facilities to Devil Canyon in the year Metropolitan increased Exchange Water deliveries.

b. If at the end of five years, Coachella and/or Desert has received a disproportionately higher amount of Table A Amounts and Multi-Year Supplies than Metropolitan, then Metropolitan will take delivery of Coachella and/or Desert's Table A Amounts and Multi-Year Supplies in an amount equal to the disproportionate amount of water they received, Metropolitan will reimburse them for the variable transportation charges that Coachella and/or Desert paid DWR to move the water through SWP facilities to Devil Canyon in the year Metropolitan takes delivery of the increased Table A Amounts and Multi-Year Supplies, and Metropolitan will not make the equivalent Exchange Water deliveries to Coachella and/or Desert.

c. Should a State Water Contract amendment be ratified that allows for single-year Table A Amount transfers, the Parties may agree to use single-year transfers to accomplish the goal of restoring proportionality in the delivery of Table A Amounts and Multi-Year Supplies.

d. Billing and payment for financial adjustments made under this section 4.A.4. will occur in the calendar year following the fifth year. If any Party asserts to the other Parties, in writing, prior to payment of a reimbursement required by subsections 4.A.4.a. or b. above, that such reimbursement would produce a substantially inequitable financial result due to differences in variable transportation charges by DWR between the year that the Exchange Water or Table A Amounts and Multi-Year Supplies would have been delivered, absent the disproportionate deliveries, and the year that the increased Exchange Water or increased Table A Amounts and Multi-Year Supplies were later delivered to correct the resulting disproportionality, and taking into consideration the inflation that occurred over that period, the General Managers of the Parties will meet in an attempt to mutually agree to the amount of reimbursement necessary to achieve an equitable financial adjustment.

#### B. Exchange of Single-Year Supplies

1. If sufficient capacity exists after accounting for Table A Amounts and Multi-Year Supplies, Metropolitan will exchange Coachella's and Desert's Single Year Supplies up to the amounts requested by Coachella and Desert for equal quantities of Metropolitan's Exchange Water as listed in Exhibit B to this Agreement. The Parties may agree in writing to include additional Single-Year Supplies in Exhibit B which will be exchanged in the same manner.

2. There may be limitations on Metropolitan's ability to take delivery of all Single-Year Supplies in any year. Such limitations include insufficient demands within Metropolitan's service area, capacity constraints on the East Branch of the SWP, and the Parties' storage program capacities. If Metropolitan determines that any such limitations

exist, Metropolitan will consult with the Coordination Committee and will reduce the amount of water exchanged accordingly.

# C. Exchange of Article 21 Supplies

When Article 21 Supplies are available and when Metropolitan determines that it has capacity to take delivery of Article 21 Supplies, Metropolitan will request delivery of Article 21 Supplies for the Parties in proportion to their Table A Amounts to the extent that no Party is harmed by delivery of Article 21 Supplies. Metropolitan will exchange such water of Coachella and Desert for equal quantities of Metropolitan's Exchange Water.

# D. Exchange of Carryover Supplies

Metropolitan will exchange Coachella's and Desert's available carryover each year in amounts requested by Coachella and Desert for equal quantities of Metropolitan's Exchange Water. Metropolitan will not exchange Coachella's and Desert's spilled carryover, but will account for it as provided in Section 4.A.4.

# E. Coordination Regarding Potential Additional Supplies

Before a Party declines to exercise a right to obtain water under an existing agreement which could be conveyed through the SWP, that Party will consult with the Coordination Committee regarding the potential opportunity for the other Parties to instead obtain such water for themselves. Any terms for addressing such an opportunity will be addressed in a separate agreement among the participants.

# F. <u>Delivery Points</u>

Metropolitan will deliver its Exchange Water to Coachella and Desert at the Whitewater service connections, Mission Creek service connections, or at other locations mutually agreed upon by Metropolitan and the Party whose connection is involved. DWR will deliver Coachella's

and Desert's State Project Water for exchange to Metropolitan at: Devil Canyon Afterbay, a connection downstream of Devil Canyon Afterbay, or other locations mutually agreed upon by Metropolitan and the Party whose connection is involved. Each Party must construct and operate its own facilities for the transportation of water subject to this Agreement from the delivery points to and within its own service area.

G. <u>Scheduling of Deliveries</u>

1. After consultation with the Coordinating Committee, Metropolitan will act as Coachella's and Desert's agent in scheduling delivery by DWR of Coachella's and Desert's State Project Water to Metropolitan.

2. Metropolitan will coordinate with Coachella and Desert to best accommodate the Parties' requests regarding delivery times, rates, and points of delivery.

3. To ensure that carryover rights are available to Metropolitan, Coachella and Desert will utilize, by exchange, their entire Table A Amounts within their respective service areas or in adjacent areas in a manner that will benefit use within their respective service areas.

H. Additional Table A Amounts, Multi-year Supplies, and Single-year Supplies

Notwithstanding anything to the contrary in this Agreement, each Party may include in this Agreement up to a combined total of an additional 10,000 acre-feet of Table A Amounts, Multi-year Supplies, and Single-year Supplies without prior written agreement of the other Parties.

#### 5. Advance Delivery of Colorado River Water

#### A. Right to Deliver Colorado River Water in Advance

Metropolitan may make advance deliveries of Colorado River water to be credited to an advance delivery account provided that the total balance of advance deliveries at any time in the account does not exceed 800,000 acre-feet or such greater amount as may be mutually agreed upon by the Parties, after debiting the account for stored water utilized by Coachella and Desert pursuant to Section 5.C. [Credit of Advance Deliveries Against Metropolitan's Exchange Obligations]. Deliveries will be for spreading at the spreading grounds overlying the Whitewater River Sub-basin of the Upper Coachella Valley Groundwater Basin, spreading grounds overlying the Mission Creek Sub-basin, or such other location or purpose (such as in lieu recharge) as may be mutually agreed upon by the Parties. Such advance deliveries will not interfere with normal deliveries of Exchange Water, and any Colorado River water delivered by Metropolitan to Coachella and Desert in any year will first be credited to Metropolitan's obligation to deliver Exchange Water during that year, and the balance of such deliveries will be applied to offset Metropolitan's future Exchange Water delivery obligations as provided in Section 5.C. [Credit of Advance Deliveries Against Metropolitan's Exchange Obligations] or Metropolitan's obligations pursuant to the Delivery and Exchange Agreement Between Metropolitan and Coachella for 35,000 Acre-feet.

# B. Ownership of Advance Deliveries

Advance deliveries of Colorado River water stored in the Whitewater River Sub-basin will be owned by Coachella and Desert in proportion to the amounts of water which they are required to deliver to Metropolitan pursuant to this Agreement. Title passes at the delivery structure.

#### C. Credit of Advance Deliveries Against Metropolitan's Exchange Obligations

1. At such times as Metropolitan may determine that its available Colorado River water supply is fully required to meet the needs of its member agencies, it will notify Coachella and Desert. Thereafter, and until Metropolitan determines that Exchange Water is again available, Colorado River water delivered in advance to the Whitewater River Sub-basin pursuant to this Agreement will be used by Coachella and Desert, and Metropolitan will be given credit for and will take deliveries of State Project Water made available to Coachella and Desert. So long as such water delivered in advance is available for such credits, Metropolitan will be entitled to continue to receive Coachella's and Desert's State Project Water.

2. Metropolitan will not have an annual call-back option for the 100,000 acre-feet per year of Metropolitan's Annual Table A Amount from the SWP transferred to Coachella and Desert pursuant to the 2003 Exchange Agreement.

3. In the event that Metropolitan has been credited with all of the Colorado River water it has delivered to its advance delivery account under Section 5.A. [Right to Deliver Colorado River Water in Advance], Metropolitan will be entitled to 200,000 acre-feet of advance credit which Metropolitan may use in the same manner as if it had delivered the Colorado River water in advance of an exchange. However, so long as a Metropolitan has advance credit available, Metropolitan will deliver to the Mission Creek service connection each year a quantity of Exchange Water equal to the proportionate share of deliveries which Coachella and Desert have committed to allocate to the Mission Creek Sub-basin (as indicated by Coachella and Desert to Metropolitan each July), subject to Metropolitan's delivery capability, so that Metropolitan's advance credit

balance does not affect the timing of replenishment of the Mission Creek Sub-basin. At the end of a calendar year, in the event that the advance credit that Metropolitan receives under this Section 5.C.3. exceeds 20,000 acre-feet, Metropolitan will deliver sufficient Colorado River water to Coachella and Desert so that the advance credit is eliminated by the end of the fifth calendar year thereafter. As an example, if Metropolitan receives more than 20,000 acre-feet of advance credit in 2020, then Metropolitan will deliver sufficient Colorado River water to Coachella and Desert to ensure that all advance credit is eliminated by December 31, 2025.

#### D. <u>Scheduling of Advance Deliveries</u>

Advance deliveries will be made according to a schedule established by the Parties. Such schedule may be amended from time to time as required for operation, maintenance, and repair, or by local groundwater conditions.

# E. <u>Responsibility for Spreading Grounds</u>

Coachella is responsible for operating, maintaining, and repairing the spreading grounds overlying the Whitewater River Sub-basin of the Upper Coachella Valley Groundwater Basin. Desert is responsible for operating, maintaining, and repairing the spreading grounds overlying the Mission Creek Sub-basin.

#### F. Remaining Advance Delivery Credits

In the event that either Coachella or Desert cancels this Agreement, if any advance delivery credits remain in Metropolitan's advance delivery account, which have not been charged to Coachella's and Desert's delivery obligations to Metropolitan prior to the date the cancellation is effective, Coachella and Desert, consistent with their obligations under this Agreement, will cause DWR to make deliveries of State Project Water to Metropolitan until

Metropolitan has received all remaining advance delivery credit in the same manner as if this Agreement were still in effect.

# 6. Water Management Cost Sharing

Coachella and Desert will pay a portion of Metropolitan's average long-term costs to store water in Metropolitan's SWP groundwater storage programs in accordance with Exhibit C of this Agreement. Upon request by a Party and no later than 2026, the Parties will discuss whether to amend Exhibit C. Any amendment to Exhibit C must be in writing.

# 7. **Responsibility for Service Connections**

Metropolitan is responsible for operating, maintaining, and repairing the existing Whitewater and Mission Creek service connections, including any measuring devices. The existing connections include DWCV-1, DWCV-2, DWCV-2T, DWCV-3, DWCV-4, and DWCV-5. Coachella is responsible for the costs of any improvements it desires to make to the existing Whitewater service connections, including any measuring devices. Desert is responsible for the costs of any improvements it desires to make to the existing Mission Creek service connection, including any measuring devices.

# 8. Responsibility for Coachella's and Desert's Hydroelectric Plant

Coachella and Desert are responsible for any risk from loss of anticipated revenue from Coachella's and Desert's hydroelectric plant in any year caused by the scheduling and making of deliveries by Metropolitan; provided that Metropolitan will exercise reasonable efforts to schedule deliveries whenever possible so as to permit hydroelectric power generation.

# 9. <u>Rights of Way</u>

Metropolitan will grant to Coachella and/or Desert such easements in lands owned by Metropolitan as may be necessary for the operation, maintenance, removal, and repair of any water conveyance facilities downstream from the Whitewater and Mission Creek service connections and through which Metropolitan's Exchange Water is delivered to Coachella and Desert. Coachella and Desert will grant to Metropolitan such easements in lands owned by Coachella and Desert as may be necessary for the operation, maintenance, removal, and repair of the Whitewater and Mission Creek service connections.

#### 10. Proposed Deliveries Requiring a New Turnout from the Colorado River Aqueduct

Proposed deliveries of Colorado River water to a new turnout would require separate terms to be negotiated among the Parties at such time as when a new turnout is requested.

#### 11. Noninterference with Other Water Deliveries

Either Metropolitan or Coachella may acquire Colorado River water from any other person or entity without objection by the other so long as such acquisition does not materially reduce the water available to the other. A breach of this section would cause irreparable injury and will be grounds for the immediate termination of this Agreement pursuant to Section 20 [Cancellation]. This Section will remain in effect for the term of this Agreement, notwithstanding any earlier termination of the Quantification Settlement Agreement dated October 10, 2003.

#### 12. Measurement of Deliveries

All Exchange Water delivered by Metropolitan to Coachella and Desert will be measured by measuring devices and equipment installed at the delivery structures at which Exchange Water is delivered by Metropolitan to Coachella and Desert. The measuring devices may include meters or orifice plates. The costs for the original procurement and installation of measuring devices and equipment have been paid for by Coachella and Desert, and will be operated by Metropolitan. Metropolitan will be responsible for future, in-kind repair and replacement of the

measuring devices pursuant to Section 7 [Responsibility for Service Connections]. Metropolitan will give Coachella and Desert notice and, upon request, the opportunity to be present for any testing Metropolitan performs on the measuring devices and equipment. Metropolitan will share the results of any testing with Coachella and Desert. Coachella and Desert will have the right at any time to require that any such device or equipment be tested by Metropolitan, and Coachella and Desert will have the further right to be represented by a qualified observer during any such test. Should such test disclose a problem, Metropolitan will work with Coachella and Desert to resolve any resulting discrepancy and make adjustments in future deliveries of Exchange Water, if necessary. Such adjustments will cover the known or estimated period of duration of such discrepancy, but in no event will the period extend further back from the greater of either six months before the date of the test or January 1 of the year in which the test was conducted.

#### 13. Payment of State Water Contract Charges

Coachella and Desert will pay all costs and charges due under their State Water Contracts incurred in connection with delivery of State Project Water to Metropolitan. When Metropolitan transferred the 100,000 acre-feet of Metropolitan's Annual Table A Amount to Coachella and Desert in 2003, Metropolitan also assigned the transportation rights to Coachella and Desert in Reaches 1 through 28J of the California Aqueduct. For the purposes of calculating the cost of these additional transportation rights in Reaches 19 through 28J it is assumed that the 100,000 acre-feet is conveyed through Basic East Branch capacity rather than East Branch Enlargement capacity, as described in Bulletin 132. The amounts transferred were 88,100 acre-feet to Coachella and 11,900 acre-feet to Desert, and capacity available to Coachella and Desert will be correspondingly adjusted pursuant to requirements of their State Water Contracts. Coachella and Desert are also responsible for paying DWR the Delta Water Charge, Water System Revenue

Bond Surcharge, and other charges attributable to the transferred amount. Any separate settlement agreed to by DWR and the Parties regarding East Branch Enlargement capacity and East Branch Allocation will apply to this Agreement.

# 14. Payment of Colorado River Aqueduct Costs

Metropolitan will pay all costs incurred in connection with the delivery of Exchange

Water to Coachella and Desert.

# 15. <u>Payment Directions</u>

Payments required to be made to the Parties under this Agreement will be made to the order of Coachella, Desert, or Metropolitan, as the case may be, and paid by wire transfer as

follows:

Coachella Valley Water District Union Bank of California 445 S. Figueroa Street Los Angeles, CA 90071 ABA No. 122000496 Contact Person: Donna Tredway Credit to: Coachella Valley Water District Account No. 2740013028

Desert Water Agency Union Bank of California ABA Routing #122000496 Account #322-0539198

The Metropolitan Water District of Southern California Wire to: Bank of America Credit to: Metropolitan Water District of Southern California Account No. 1459350937 ABA No. 026009593

A Party may change these wire transfer instructions by giving a notice in accordance with

Section 28.F. [General Provisions].

# 16. **Delinquent Payments**

Payment of any amount required under this Agreement will be delinquent if not received before the close of crediting activity on the date due. In the event that any Party is delinquent in the payment of any amount, that Party will pay interest on the amount due at an annual rate equal to that earned by the pooled money investment fund as provided in Government Code section 16480 et seq., calculated monthly on the amount of such delinquent payment from and after the date due until it is paid.

#### 17. Water Rights

This Agreement will not be construed as: (a) a conveyance, abandonment, or waiver of any water right to the use of Table A Water which is held or owned by Coachella or Desert; (b) a conveyance, abandonment, or a waiver of any water right to the use of Colorado River water which is held or owned by Metropolitan; or (c) for purposes of Article 4 (Option for Continued Service) of Metropolitan's State Water Contract a reduction in the Maximum Annual Table A Amount of Metropolitan. Nor will it be construed as conferring any right whatsoever upon any person, firm, or other public or private entity not a party to this Agreement.

# 18. <u>Records</u>

Each Party will maintain and make available for inspection by the other Parties, during regular office hours, accurate records pertaining to the times and amounts of exchange deliveries and to the costs, disbursements, and receipts with respect to the construction, operation, and maintenance of structures for the delivery of State Project Water, Colorado River water, and Exchange Water.

# 19. Term of Agreement

A. This Agreement will terminate on December 31, 2035; unless extended pursuant to this Section 19 or terminated pursuant to Section 20 [Cancellation]; provided, however, if a claim arising under this Agreement has not been resolved, such provisions of this Agreement will continue in full force and effect as are necessary for the purpose of resolving such claims to satisfy the rights and obligations of the Parties. No later than December 31, 2034, the Parties will meet in good faith to begin negotiations to extend this Agreement for a period of an additional 50 years on the same terms and conditions.

B. Upon the termination of this Agreement, at the expiration of the term, or any earlier cancellation:

1. All structures and facilities which have been used solely to enable Coachella and Desert to take Exchange Water will be removed at the election of Metropolitan, and all property of every kind belonging to Metropolitan which has been involved in such delivery of water will be returned to its original condition, as near may be. Such work will be done, at the option of Metropolitan, either by and at the expense of Coachella and Desert but subject to approval by Metropolitan, or by Metropolitan at the expense of Coachella and Desert.

2. The 100,000 acre-feet per year of Metropolitan's Annual Table A Amount from the SWP and transportation rights transferred to Coachella and Desert under the 2003 Exchange Agreement will be transferred back to Metropolitan.

3. Metropolitan will reassume responsibility for the resulting increase in SWP charges pursuant to the State Water Contracts for the return of the 100,000 acre-feet per year of Metropolitan's Annual Table A Amount. The Parties recognize that the State

Water Contract provides for the annual redetermination and correction of past charges to Coachella and Desert associated with the 100,000 acre-feet. In the year prior the transfer back to Metropolitan of the 100,000 acre-feet, Metropolitan, Coachella, and Desert will assemble a SWP charges technical workgroup to develop the processes and procedures necessary to identify annual redetermination, correction, and adjustment of prior year charges associated with the 100,000 acre-feet. Each year thereafter, the technical workgroup will meet after the annual charges are issued to review redetermination and adjustments to past charges for the Delta Capital and Minimum, Transportation Capital and Minimum, Water System Revenue Bond Surcharge, Off Aqueduct and Variable OMP&R charge, Conservation and Transportation Replacement charges, Tehachapi 2nd Afterbay, Devil Canyon and Castaic Contract charges, and any other SWP charges not mentioned. The workgroup will prepare an annual accounting of all the redeterminations and adjustments to SWP charges and the amount owing to or receivable from Metropolitan, Coachella, and Desert. No later than ninety days (90) after the completion of the annual accounting for redetermination of past charges and adjustments, but before June 30 each year, all amounts owing will be settled by check. The SWP charges technical workgroup will cease to meet when DWR is no longer making adjustments to past charges associated with the 100,000 acre-feet.

20. <u>Cancellation</u>

#### A. <u>Conditions of Termination</u>

This Agreement will terminate upon any of the following conditions:

1. At the expiration of ten years after service by a Party upon the other Parties of a written notice of election to terminate the Agreement, provided that if

Coachella breaches Section 11 [Noninterference with Other Water Deliveries] of the Agreement, Metropolitan may, in its sole discretion, give notice to Coachella and Desert to immediately terminate this Agreement.

2. Upon completion of delivery facilities capable of transporting Coachella's and Desert's State Project Water from the East Branch to Coachella's and Desert's service areas.

3. Upon written notice by Metropolitan and upon the fact that it no longer has sufficient rights to Colorado River water to provide Coachella and Desert with Exchange Water required under this Agreement.

4. Upon written notice by Metropolitan that any new limitations exist on the right or ability of Coachella or Desert to accept Colorado River water from Metropolitan for spreading or storage.

# 21. Liability

#### A. <u>Metropolitan</u>

Metropolitan will not be liable to either Coachella or Desert for any damages or liability arising from a failure of Metropolitan to deliver Exchange Water, which failure results from a cessation or reduction of flow of water in the Colorado River Aqueduct below the quantities required from time to time for delivery to Coachella and Desert under this Agreement. Coachella and Desert will defend and indemnify Metropolitan, its directors, officers, employees, agents, and representatives from and against any and all claims and liabilities which may result in any manner or to any extent from such failure, or from any action or inaction by Coachella or Desert or its directors, officers, employees, agents, or representatives done or made with respect to the receipt and distribution by Coachella or Desert of Metropolitan's Exchange Water or Colorado

River water, including but not limited to construction, reconstruction, operation, maintenance, removal, and repair of facilities necessary or used pursuant to this Agreement.

# B. Coachella and Desert

Coachella and Desert will not be liable to Metropolitan for any damages or liability arising from a failure of DWR to deliver Coachella's or Desert's State Project Water to Metropolitan, which failure results from a cessation or reduction of flow of water in the State Water Project below the quantities required from time to time for delivery to Metropolitan under this Agreement. Metropolitan will defend and indemnify Coachella and Desert, their directors, officers, employees, agents, and representatives from and against any and all claims and liabilities which may result in any manner or to any extent from any such failure, or from any action or inaction by Metropolitan or its directors, officers, employees, agents, or representatives done or made with respect to the receipt and distribution by Metropolitan of Coachella's and Desert's State Project Water, including but not limited to construction, reconstruction, operation, maintenance, removal, and repair of facilities necessary or used pursuant to this Agreement.

# 22. <u>Default</u>

Each of the following constitutes an event of default by a Party under this Agreement:

A. A Party fails to pay a required amount by the date due. If a Party fails to pay a required amount by the date due, that delinquent payment will also bear interest as provided by Section 16 [Delinquent Payments].

B. A Party fails to perform or observe any term, covenant, or undertaking in this Agreement that it is required to perform or observe and such default continues for forty-five (45) days from a notice of default being sent in the manner provided in Section 26.F. [General Provisions].

# 23. <u>Remedies</u>

A. Each Party recognizes that the rights and obligations of the Parties under this Agreement are unique and of such a nature as to be inherently difficult or impossible to value monetarily. If a Party does not perform in accordance with this Agreement, another Party will likely suffer harm curable only by the imposition of an injunction requiring specific performance. Thus, the Parties agree that any breach of this Agreement by any Party will entitle the non-breaching party to injunctive relief, including but not limited to, a decree of specific performance, in addition to any other remedies at law or in equity that may be available in the circumstances. If Coachella or Desert fails to comply with its obligations to DWR under its State Water Contract, and DWR makes demand that Metropolitan assume payment of costs and charges provided for by Section 13 [Payment of State Water Contract Charges], Metropolitan may, for purposes of Section 19 [Term of Agreement], specify the later of the (i) effective date of the demand by DWR or (ii) expiration of forty-five (45) day period referenced by Section 22.B. [Default] as the effective date of termination.

B. The Parties do not intend that any right or remedy given to a Party on the breach of any provisions of this Agreement be exclusive; each such right or remedy is cumulative and in addition to any other remedy provided in this Agreement or otherwise available at law or in equity. If a non-breaching Party fails to exercise or delays in exercising any right or remedy, the non-breaching Party does not thereby waive the right or remedy. In addition, no single or partial exercise of any right, power, or privilege precludes any other or further exercise of a right, power, or privilege granted by this Agreement, or otherwise.

#### 24. <u>Resolution of Disputes</u>

Within thirty calendar days of the Parties identifying the existence of a dispute, the General Managers of Metropolitan, Coachella, and Desert, as the case may be, will meet and attempt to resolve the dispute to their mutual satisfaction. Any such resolution will be in writing and be binding on the Parties.

# 25. Force Majeure

If the performance, in whole or in part, of the obligations of a Party under this Agreement is hindered, interrupted or prevented by wars, strikes, lockouts, fire, acts of God or by other acts of military authority, or by any cause beyond the control of the Party, whether similar to the causes herein specified or not, such obligations of the Party under this Agreement will be suspended to the extent and for the time the performance thereof is affected by any such act. Upon the cessation of any such hindrance, interruption or prevention, the Parties will become obligated to resume and continue performance of their respective obligations under this Agreement. Notwithstanding any act described in this section, the Parties will diligently undertake all reasonable effort to perform this Agreement.

# 26. <u>General Provisions</u>

A. In the event that any term or condition of this Agreement is determined to be invalid, illegal, or otherwise unenforceable, such determination will have no effect on the other terms and conditions, which will continue to be binding upon the Parties. Lack of enforcement of any term or condition of this Agreement will not be construed as a waiver of any rights conferred by such term or condition. Unless otherwise agreed to in writing, the failure of any Party to require the performance by another Party of any provision of this Agreement will in no way

affect the full right to require such performance at any time thereafter, nor will the waiver of any provision on one occasion be taken or held to be a waiver of the provision itself.

B. This Agreement will be binding on the Parties and their respective successors and assigns.

C. Any person signing this Agreement represents that he/she has full power and authority to do so and that his/her signature is legally sufficient to bind the Party on whose behalf he/she is signing.

D. This Agreement contains the entire understanding of the Parties with respect to its subject matter and supersedes any prior understanding between the Parties, except as set forth in this Agreement, whether written or oral. This Agreement can only be amended in writing signed by the Parties.

E. Time is of the essence in this Agreement.

F. Any communication, notice, or demand of any kind which any Party may be required or may desire to give to another Party will be in writing and delivered by personal service (including express or courier service) or by mail, addressed as follows:

# Metropolitan

The Metropolitan Water District of Southern California Attention: General Manager P.O. Box 54153 Los Angeles, CA 90054-0153

For personal or overnight delivery:

The Metropolitan Water District of Southern California Attention: General Manager 700 North Alameda Street Los Angeles, CA 90012 Phone: 213-217-6211

# Copies to:

The Metropolitan Water District of Southern California Attention: General Counsel P.O. Box 54153 Los Angeles, CA 90054-0153

The Metropolitan Water District of Southern California Attention: Water Resource Management Group P.O. Box 54153 Los Angeles, CA 90054-0153

# Coachella

Coachella Valley Water District Attention: General Manager/Chief Engineer P.O. Box 1058 Coachella, CA 92236

For personal or overnight delivery:

Coachella Valley Water District Attention: General Manager/Chief Engineer Avenue 52 and Highway 111 Coachella, CA 92236 Phone: 760-398-2651

Copy to:

Steven B. Abbott, Esq. Redwine and Sherrill, LLP 3890 11th Street, Ste. 207 Riverside, CA 92501-3577 Phone: 951-684-2520

#### Desert

Desert Water Agency Attention: General Manager 1200 Gene Autry Trail P.O. Box 1710 Palm Springs, CA 92263-1710 Phone: 760-323-4961 Copy to:

Michael T. Riddell, Esq. Best, Best & Krieger LLP 3750 University Ave., Suite 400 P.O. Box 1028 Riverside, CA 92502 Phone: 909-686-1450

A Party may change its address for notice by written notice given to the other Parties in the manner provide in this Section. Any communication pursuant this Section will be deemed to have been duly given or served on the date personally served, if by personal service, or three days after being placed in the U.S. mail, if mailed.

G. This Agreement is entered into in the Counties of Riverside and Los Angeles,California, and will be governed by and construed in accordance with the laws of the State ofCalifornia.

H. The Parties will perform any further acts and to execute and deliver any documents which may be reasonably necessary to carry out the provisions of this Agreement.

I. This Agreement may be executed in any number of counterparts, each of which will be deemed an original, but all of which, when taken together, will constitute one and the same instrument.

J. This Agreement is made solely for the benefit of the Parties and their respective successor and assigns. No other person or entity may have or acquire any right by virtue of this Agreement.

In WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their duly authorized representatives on December 11, 2019.

Approved as to form:

By: Marcia Scully C

General Counsel

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

By: 🖌 efflev ghtling General Manager

Approved as to form:

COACHELLA VALLEY WATER DISTRICT

B anos By:  $\sim$ 

Steven B. Abbott Special Counsel Redwine and Sherrill, LLP

By: J. M. Barrett

General Manager

Approved as to form:

DESERT WATER AGENCY

By: Mu Michael T. Riddell

Best Best & Krieger LLP

Krause By: Mar

Mark S. Krause General Manager

# Exhibit A

# **Multi-Year Supplies**

1. 9,500 acre-feet/year of Coachella's Rosedale Rio Bravo Water Storage District water.

## <u>Exhibit B</u>

# **Single-Year Supplies**

- 1. Yuba Accord water.
- 2. State Water Contractors' Dry Year Transfer Program water.
- 3. 6,500 acre-feet/year of Coachella's Rosedale Rio Bravo Water Storage District water.

### Exhibit C

#### Water Management Cost Sharing

#### 1. Annual Payment to Manage State Project Water

In years when the SWP Allocation (as defined below) is greater than 50%, Coachella and Desert will pay a portion of Metropolitan's average long-term costs to store water in Metropolitan's SWP groundwater storage programs. The amount Coachella and Desert will pay Metropolitan in such years, beginning in 2019, is \$155/acre-foot (escalated annually by the prior year's Annual Percent Change series title "Consumer Price Index for All items in West Urban, all urban consumers, not seasonally adjusted") for 6.99% (for Coachella) and 2.64% (for Desert), of the volumes specified for Coachella and Desert in the following table:

	Estimated	Desert	Coachella
	Long-Term	Multi-Year	Multi-Year
	Average	Supply	Supply
SWP	Deliveries to	Share –	Share –
Allocation	Storage (AF)	2.64% (AF)	6.99% (AF)
0% - 50%	0	0	0
55%	30,000	792	2,097
60%	60,000	1,584	4,194
65%	90,000	2,376	6,291
70%	120,000	3,168	8,338
75%	150,000	3,960	10,485
80%	180,000	4,752	12,582
85%	210,000	5,544	14,679
90% - 100%	240,000	6,336	16,776

#### 2. <u>Table Explanation</u>

A. SWP Allocation is the final South-of-Delta allocation.

B. Coachella's and Desert's Multi-Year Supply Shares are based on 1,911,500 acrefeet Table A for Metropolitan, 138,350 acre-feet Table A and 9,500 acre-feet of Rosedale Rio-Bravo Water Storage District water for Coachella, and 55,750 acre-feet of Table A for Desert. If a Party's Table A or other Multi-Year Supply amounts in Exhibit A change in the future, the Parties will adjust the table accordingly.

## 3. Example Calculation

As an example, if the SWP Allocation in 2019 were 60%, Coachella would pay Metropolitan \$650,070 (155 x 4,194) and Desert would pay Metropolitan \$245,520 (155 x 1,584).

4. Payments under Exhibit C are due June 30 for operation in the prior calendar year.

## SECOND AMENDMENT TO DELIVERY AND EXCHANGE AGREEMENT BETWEEN METROPOLITAN AND COACHELLA FOR 35,000 ACRE-FEET

THIS SECOND AMENDMENT TO DELIVERY AND EXCHANGE AGREEMENT BETWEEN METROPOLITAN AND COACHELLA FOR 35,000 ACRE-FEET is made this 11th day of December 2019, for identification purposes only, by and between the Metropolitan Water District of Southern California, a public agency of the State of California ("Metropolitan") and Coachella Valley Water District, a public agency of the State of California ("Coachella" or "CVWD"). Metropolitan and CVWD are sometimes referred to individually as a "Party" and collectively as "Parties."

### RECITALS

A. On October 10, 2003, the Parties entered into the "Delivery and Exchange Agreement between Metropolitan and Coachella for 35,000 Acre-Feet."

B. On October 19, 2015, the Parties amended the "Delivery and Exchange Agreement between Metropolitan and Coachella for 35,000 Acre-Feet Agreement" by entering into the "First Amendment to Delivery and Exchange Agreement between Metropolitan and Coachella for 35,000 Acre-Feet" ("First Amendment"). The "Delivery and Exchange Agreement between Metropolitan and Coachella for 35,000 Acre-Feet Agreement" as modified by the First Amendment is hereafter referred to as the "Agreement."

C. Each initially capitalized term herein shall have the meaning given it in the Agreement, unless specifically defined herein.

D. The Parties desire to streamline the delivery, billing, and payment provisions of the Agreement, as well as provide for an exchange of additional water, as set forth herein.

## NOW, THEREFORE, IN CONSIDERATION OF THE FOREGOING RECITALS AND THE MUTUAL COVENANTS AND AGREEMENTS CONTAINED HEREIN, THE PARTIES AGREE TO SUPPLEMENT, AMEND AND MODIFY THE TERMS AND CONDITIONS SET FORTH IN THE AGREEMENT, AS FOLLOWS:

1. Section 1.13 of the Agreement shall be deleted in its entirety.

2. Section 2.1 of the Agreement shall be deleted in its entirety and replaced by the following:

"<u>Delivery of Entitlement Water</u>. Pursuant to and subject to Metropolitan's State Water Contract and this Agreement, Metropolitan shall deliver to CVWD during 2019 through 2026 a total of 280,000 acre-feet of water available from Metropolitan's State Water Project Annual Table A Amount ("Entitlement Water")."

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3. Section 2.4 of the Agreement shall be deleted in its entirety and replaced by the following:

"<u>**Transfer Water Order.</u>** Metropolitan shall include in its order to DWR 35,000 acrefeet of Entitlement Water each year during 2019 through 2026."</u>

4. Section 2.5 of the Agreement shall be deleted in its entirety and replaced by the following:

"Exchange Water. All deliveries of Entitlement Water during 2019 through 2026, of whatever amount is made available by DWR as a result of the order made pursuant to Section 2.4 (Transfer Water Order), shall be exchanged with Metropolitan for a like amount of Metropolitan's Colorado River water ("Exchange Water").

5. Section 2.6 of the Agreement shall be deleted in its entirety and replaced by the following:

"**Points of Delivery.** Metropolitan will, except as allowed pursuant to Section 2.14 of this Agreement, deliver the Exchange Water to the Whitewater Service Connections and has discretion to determine how much of the 280,000 acre-feet of Exchange Water to deliver to CVWD each year, with the exceptions that: (a) Metropolitan will deliver up to 35,000 acre-feet in a year at Imperial Dam to the extent needed to avoid a CVWD overrun; and (b) Metropolitan may only deliver more than 35,000 acre-feet in a year to the extent needed to offset reduced deliveries in prior years."

6. Section 2.7 of the Agreement shall be deleted in its entirety and replaced with the following:

"<u>Costs of Supply</u>. CVWD shall purchase the Entitlement Water from Metropolitan at a payment ("Costs of Supply Payment") of \$289/acre-foot in 2019 for Exchange Water delivered at the Whitewater Service Connections and \$180/acre-foot in 2019 for Exchange Water delivered at Imperial Dam, both of which will be inflated by 3% for deliveries each successive year through 2026. A table showing this adjustment (rounded to the nearest dollar) is attached and incorporated into this Agreement as Exhibit A ("Adjustment to Costs of Supply")."

7. The final sentence of Section 2.9 of the Agreement shall be deleted.

8. Section 2.10 of the Agreement shall be deleted in its entirety and replaced with the following:

"**<u>Reimbursement</u>**. On a yearly basis Metropolitan will reimburse CVWD for water that the U.S. Bureau of Reclamation has approved CVWD to divert but CVWD does not use

during 2019-2026, that is made available to Metropolitan at a rate of \$50/acre-foot in 1999 Dollars (as defined by "N" Dollars in section 1.1(46) of the Quantification Settlement Agreement)." MWD shall make the reimbursement by June 1 following the year the water is made available to Metropolitan.

9. Section 2.11.1 of the Agreement shall be deleted in its entirety and replaced with the following:

"**Payment Schedule.** Metropolitan shall pay DWR the costs associated with the Entitlement Water including delivery. Through 2027, Metropolitan shall invoice CVWD by June 1 each year as if Metropolitan had delivered 35,000 acre-feet during the prior year, and CVWD will pay Metropolitan within 60 days of receiving the invoice, the Cost of Supply Payment referred to in Section 2.7 for 35,000 acre-feet."

10. Section 2.13 of the Agreement shall be deleted in its entirety.

11. Section 2.14 of the Agreement shall be deleted in its entirety and replaced with the following:

"<u>Advance Delivery of Exchange Water</u>. In lieu of delivering the Exchange Water to the Whitewater Service Connections, Metropolitan may opt to deliver to CVWD its full allocation of Exchange Water from advance delivery water as provided for in the 1984 Advance Delivery Agreement (including any future amendments). In such case, such advance delivery water shall be deemed delivered to CVWD. It shall be CVWD's obligation to access such water. Metropolitan may not satisfy a delivery obligation to Imperial Dam by advance delivery water."

12. The final sentence of Section 2.15 of the Agreement shall be deleted.

13. New Section 2.18 is added to the Agreement as follows:

**"Exchange of Additional Water**. During 2020-2026, CVWD shall limit its annual call under the 1989 Approval Agreement, as amended in 2003, to 15,000 acre-feet. In return, Metropolitan shall deliver a total of 105,000 acre-feet to CVWD at the Whitewater Service Connections before the end of 2026. Metropolitan shall have discretion to determine how much of the 105,000 acre-feet Metropolitan delivers to CVWD each year. Unless the Parties agree otherwise, Metropolitan may not deliver the water during the months of January through June. CVWD shall pay Metropolitan for the water Metropolitan delivers to CVWD at the same price per acre-foot that CVWD pays Metropolitan for Entitlement Water under Section 2.7 of this Agreement. Metropolitan shall invoice CVWD, and CVWD shall pay Metropolitan, during the same fiscal year in which Metropolitan delivers the water to CVWD. In the event that any new limitations become effective on the right or ability of Coachella to accept Colorado River from Metropolitan for spreading or storage, Metropolitan may upon written notice cancel this section of the Agreement."

14. New Section 3.1.1 is added to the Agreement as follows:

"<u>Post 2026 Period</u>. By the end of 2026, the Parties will meet to renegotiate delivery and payment terms for a period beginning in 2027. If the Parties are unable to agree on new terms, then the terms of the Agreement that existed before this Second Amendment was made shall apply."

15. Exhibit A of the Agreement ("Adjustment to Cost of Supply") shall be deleted in its entirety and replaced with the Exhibit A attached to this Second Amendment ("Adjustment to Costs of Supply").

16. Except as expressly provided above in Sections 1 through 15 above, all provisions of the Agreement shall remain in full force and effect. Notwithstanding the immediately preceding sentence, the Agreement shall be interpreted in a manner consistent with the intent of this Amendment.

IN WITNESS WHEREOF, the Parties have caused this Amendment to be executed by their duly authorized representatives on the date first above written.

#### **METROPOLITAN:**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA, a public agency of the State of California

By: Jeffrey Kightlinger General Manager

APPROVED AS TO FORM

Marcia Scully General Counsel

## CVWD:

COACHELLA VALLEY WATER DISTRICT, a public agency of the State of California

By:

J. M. Barrett General Manager

ATTEST: By:

Sylvia M. Bermudez Clerk of the Board

# EXHIBIT A

# Adjustment to Costs of Supply

		Imperial Dam		ater Service Connection	
	(Cost of Sup	oply, i.e., SWP)	(Cost of Swr, C	RA Power & O&M)	
2019	\$	180.00	\$	289.00	
2020	\$	186.00	\$	298.00	
2021	\$	191.00	\$	307.00	
2022	\$	197.00	\$	316.00	
2023	\$	203.00	\$	326.00	
2024	\$	209.00	\$	336.00	
2025	\$	215.00	\$	346.00	
2026	\$	222.00	\$	356.00	

G

# Appendix G: AWWA Water Loss Audits

AV		Water Audit So ting Workshee				Co	WA American Water Work pyright © 2014, All Rig	
Click to access definition     Glick to add a comment     Click to add a comment	Coachella Valle 2016	ey Water District (C. 7/2015 - 6/2016	A3310001, CA1	310011, & CA33	10048)		]	
Please enter data in the white cells below. Where available, metered values shou input data by grading each component (n/a or 1-10) using the drop-down list to the	ne left of the input	t cell. Hover the mouse	over the cell to ob	tain a description o			the accuracy of the	
To select the correct data grading for each input,		ed as: MILLION GAL	LONS (US) PEI	RYEAR				-
the utility meets or exceeds <u>all</u> criteria for				Mas	ster Meter	and Supp	ly Error Adjustmen	ts
WATER SUPPLIED	<	Enter grading	in column 'E' an	d 'J'>	Pcnt:		Value:	_
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				Ente	er negative	e % or val	ue for under-registi	ration
WATER SUPPLIED:		27,821.000	MG/Yr	Ente	er positive	% or valu	e for over-registrat	tion
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Default option selected for unauthorized const	umption - a gra	ading of 5 is applied	but not displa	/ed			-	-
Customer metering inaccuracies:		377.643			1.50%	$\odot$		MG/Yr
Systematic data handling errors: Default option selected for Systematic data		61.990		tdicplayed	0.25%	ОС		MG/Yr
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WATER LOSSES:         NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains:         Number of active AND inactive service connections:         Service connection density:         Are customer meters typically located at the curbstop or property line?         Average length of customer service line:         Average length of customer service line:         Average operating pressure:         COST DATA	<ul> <li>?</li> <li>4</li> <li>?</li> <li>5</li> <li>?</li> <li>4</li> <li>?</li> <li>5</li> <li>?</li> <li>*</li> <li>?</li> <li>5</li> <li>?</li> </ul>	2,952.865 3,025.000 2,106.0 109,524 52 Yes a data grading score 82.0 \$79,420,264 \$1.16	MG/Yr MG/Yr miles conn./mile main (length bounda o of 10 has been psi	ary, that is the resp n applied	onsibility of	the utility)	e real losses	-
WATER LOSSES:           NON-REVENUE WATER           = Water Losses + Unbilled Metered + Unbilled Unmetered           SYSTEM DATA           Length of mains:           Number of active AND inactive service connections:           Service connection density:           Are customer meters typically located at the curbstop or property line?           Average length of customer service line:           Average length of customer service line has been se           Average operating pressure:           COST DATA           Total annual cost of operating water system:           Customer retail unit cost (applied to Apparent Losses):	<ul> <li>+</li> <li>?</li> <li>5</li> <li>?</li> <li>?</li></ul>	2,952.865 3,025.000 2,106.0 109,524 52 Yes a data grading score 82.0 \$79,420,264 \$1.16	MG/Yr MG/Yr miles conn./mile main (length bounda of 10 has been psi \$/Year \$/100 cubic fee	ry, that is the resp n applied et (ccf)	onsibility of	the utility)	e real losses	-
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WATER LOSSES:         NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains:         Number of active AND inactive service connections:         Service connection density:         Are customer meters typically located at the curbstop or property line?         Average length of customer service line:         Average length of customer service line has been se         Average length of customer service line has been se         Average operating pressure:         COST DATA         Total annual cost of operating water system:         Customer retail unit cost (applied to Apparent Losses):         Variable production cost (applied to Real Losses):         Variable production cost (applied to Real Losses):         A weighted scale for the components of consumption of the scale scale for the components of consumption of the scale scale for the components of consumption of the scale scale for the components of consumption of the scale scale for the components of consumption of the scale scale for the components of consumption of the scale for the scale for the components of consumption of the scale for the components		2,952.865 3,025.000 2,106.0 109,524 52 Yes a data grading score 82.0 \$79,420,264 \$1.16 \$774.46 E IS: 55 out of 100 ** poss is included in the ca	MG/Yr MG/Yr miles conn./mile main (length bound cof 10 has beer psi \$/Year \$/100 cubic fee \$/Million gallons	ry, that is the resp applied et (ccf) Use Custome	r Retail Unit	Cost to valu	e real losses	-
WATER LOSSES:         NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains:         Number of active AND inactive service connections:         Service connection density:         Are customer meters typically located at the curbstop or property line?         Average length of customer service line:         Average length of customer service line has been service and the curbstop or property line?         Average length of customer service line has been service line has been service operating pressure:         COST DATA         Total annual cost of operating water system:         Customer retail unit cost (applied to Apparent Losses):         Variable production cost (applied to Real Losses):         Variable production cost (applied to Real Losses):         Variable production cost (applied to Real Losses):         A weighted scale for the components of consumption         A weighted scale for the components of consumption         PRIORITY AREAS FOR ATTENTION:         Based on the information provided, audit accuracy can be improved by addressi		2,952.865 3,025.000 2,106.0 109,524 52 Yes a data grading score 82.0 \$79,420,264 \$1.16 \$774.46 E IS: 55 out of 100 ** poss is included in the ca	MG/Yr MG/Yr miles conn./mile main (length bound cof 10 has beer psi \$/Year \$/100 cubic fee \$/Million gallons	ry, that is the resp applied et (ccf) Use Custome	r Retail Unit	Cost to valu	e real losses	-
WATER LOSSES:         NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains:         Number of active AND inactive service connections:         Service connection density:         Are customer meters typically located at the curbstop or property line?         Average length of customer service line:         Average length of customer service line has been se         Average length of customer service line has been se         Average operating pressure:         COST DATA         Total annual cost of operating water system:         Customer retail unit cost (applied to Apparent Losses):         Variable production cost (applied to Real Losses):         Variable production cost (applied to Real Losses):         A weighted scale for the components of consumption of the scale scale for the components of consumption of the scale scale for the components of consumption of the scale scale for the components of consumption of the scale scale for the components of consumption of the scale scale for the components of consumption of the scale for the scale for the components of consumption of the scale for the components		2,952.865 3,025.000 2,106.0 109,524 52 Yes a data grading score 82.0 \$79,420,264 \$1.16 \$774.46 E IS: 55 out of 100 ** poss is included in the ca	MG/Yr MG/Yr miles conn./mile main (length bound cof 10 has beer psi \$/Year \$/100 cubic fee \$/Million gallons	ry, that is the resp applied et (ccf) Use Custome	r Retail Unit	Cost to valu	e real losses	-
WATER LOSSES:         NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains:         Number of active AND inactive service connections:         Service connection density:         Are customer meters typically located at the curbstop or property line?         Average length of customer service line:         Average length of customer service line has been service and the curbstop or property line?         Average length of customer service line has been service line has been service operating pressure:         COST DATA         Total annual cost of operating water system:         Customer retail unit cost (applied to Apparent Losses):         Variable production cost (applied to Real Losses):         Variable production cost (applied to Real Losses):         Variable production cost (applied to Real Losses):         A weighted scale for the components of consumption         A weighted scale for the components of consumption         PRIORITY AREAS FOR ATTENTION:         Based on the information provided, audit accuracy can be improved by addressi		2,952.865 3,025.000 2,106.0 109,524 52 Yes a data grading score 82.0 \$79,420,264 \$1.16 \$774.46 E IS: 55 out of 100 ** poss is included in the ca	MG/Yr MG/Yr miles conn./mile main (length bound cof 10 has beer psi \$/Year \$/100 cubic fee \$/Million gallons	ry, that is the resp applied et (ccf) Use Custome	r Retail Unit	Cost to valu	e real losses	-
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	VA Free Water Audit <u>Reporting Worksh</u>		American Water Copyright © 2014, A	WAS v5.0 Works Association Il Rights Reserved
?       Click to access definition         +       Click to add a comment         Reporting Year:	achella Valley Water District 2017 7/2016 - 6/2017	(CA3310001)		
Please enter data in the white cells below. Where available, metered values should the input data by grading each component (n/a or 1-10) using the drop-down list to	o the left of the input cell. Hover th	e mouse over the cell to obtain a		sy of
	to be entered as: MILLION G			
To select the correct data grading for each input, det the utility meets or exceeds <u>all</u> criteria for tha			Master Meter and Supply Error Adjus	tments
WATER SUPPLIED	< Enter gradi	ng in column 'E' and 'J'	-> Pcnt: Value:	
Volume from own sources: + Water imported: +		24 MG/Yr + ? 00 MG/Yr + ?		MG/Yr MG/Yr
Water imported: +		00 MG/Yr + ?		MG/Yr
			Enter negative % or value for under-r	•
WATER SUPPLIED:	29,524.15	3 MG/Yr	Enter positive % or value for over-reg	jistration
			Click here: ?	e
Billed metered: + Billed unmetered: +	? 7 26,052.2 <sup>-</sup> ? n/a	0 MG/Yr MG/Yr	for help using op buttons below	tion
Unbilled metered: 🔸		MG/Yr	Pcnt: Value:	
Unbilled unmetered: +	? 5 73.8	0 MG/Yr	73.810	MG/Yr
AUTHORIZED CONSUMPTION:	? 26,155.70	2 MG/Yr	Use buttons to se percentage of wa supplied	
		-	- <u>OR</u> value	
WATER LOSSES (Water Supplied - Authorized Consumption)	3,368.45	1 MG/Yr		
Apparent Losses	2 72.0		Pcnt:	MON
Unauthorized consumption: + Default option selected for unauthorized consum		0 MG/Yr ied but not displayed	0.23%	MG/Yr
Customer metering inaccuracies: +		MG/Yr	4.45% • •	MG/Yr
Systematic data handling errors: +		MG/Yr	0.25% • C	MG/Yr
Default option selected for Systematic data ha			d	
Apparent Losses:	? 1,353.63	9 MG/Yr		
<u>Real Losses (Current Annual Real Losses or CARL)</u> Real Losses = Water Losses - Apparent Losses:	? 2,014.81	2 MG/Yr		
WATER LOSSES:				
	3.368.45	1 MG/Yr		
	3,368.45	MG/Yr		
NON-REVENUE WATER NON-REVENUE WATER: = Water Losses + Unbilled Metered + Unbilled Unmetered	3,368.45           ?         3,471.94			
<u>NON-REVENUE WATER</u> NON-REVENUE WATER:				
NON-REVENUE WATER = Water Losses + Unbilled Metered + Unbilled Unmetered SYSTEM DATA Length of mains: +	2 <b>3,471.94</b>	3 MG/Yr 6 miles		
NON-REVENUE WATER = Water Losses + Unbilled Metered + Unbilled Unmetered SYSTEM DATA Length of mains: + Number of active AND inactive service connections: +	2         3,471.94           2         6         1,710           7         6         1,710           7         9         103,35	3 MG/Yr 6 miles		
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NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains:         Number of active AND inactive service connections:         Service connection density:         Are customer meters typically located at the curbstop or property line?         Average length of customer service line:	?         3,471.94           ?         6         1,710           ?         9         103,33           ?         0         7           to zero and a data grading so         Ye	3 MG/Yr 6 miles 22 50 conn./mile main 25 (length of service lin boundary, that is the		
NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains:         Number of active AND inactive service connections:         Service connection density:         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set to         Average operating pressure:	?         3,471.94           ?         6         1,710           ?         9         103,33           ?         0         7           to zero and a data grading so         Ye	<ul> <li>3 MG/Yr</li> <li>6 miles</li> <li>52</li> <li>60 conn./mile main</li> <li>75 (length of service lin boundary, that is the ore of 10 has been applied</li> </ul>		
NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains:         Number of active AND inactive service connections:         Service connection density:         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set to         Average operating pressure:         •         COST DATA	?       3,471.94         ?       6         1,710       9         103,32       6         ?       9         Ye       6         ?       7         ?       8         ?       8         ?       8	<ul> <li>3 MG/Yr</li> <li>6 miles</li> <li>2 conn./mile main</li> <li>25 (length of service lin boundary, that is the ore of 10 has been applied</li> <li>0 psi</li> </ul>		
NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains:         Number of active AND inactive service connections:         Service connection density:         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set t         Average length of customer service line has been set t         Average operating pressure:         *         COST DATA         Total annual cost of operating water system:	?       3,471.94         ?       6         1,710         ?       9         103,33         ? <td><ul> <li>3 MG/Yr</li> <li>6 miles</li> <li>20 conn./mile main</li> <li>25 (length of service lir boundary, that is the ore of 10 has been applied</li> <li>0 psi</li> <li>4 \$/Year</li> </ul></td> <td></td> <td></td>	<ul> <li>3 MG/Yr</li> <li>6 miles</li> <li>20 conn./mile main</li> <li>25 (length of service lir boundary, that is the ore of 10 has been applied</li> <li>0 psi</li> <li>4 \$/Year</li> </ul>		
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NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains:         Number of active AND inactive service connections:         Service connection density:         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set t         Average length of customer service line has been set t         Average length of customer service line has been set t         COST DATA         Total annual cost of operating water system:         Customer retail unit cost (applied to Apparent Losses):         Variable production cost (applied to Real Losses):         WATER AUDIT DATA VALIDITY SCORE:	?       3,471.94         ?       6         ?       9         103,33       6         ?       9         103,33       6         ?       9         Ye       7         Ye       7         ?       10         \$87,662,97       9         ?       10         \$87,662,97       9         ?       9         \$11.3       \$717.2	3       MG/Yr         6       miles         20       conn./mile main         25       (length of service lin boundary, that is the boundary, that is theboundary, that is the boundary, that is the boundary, t	e responsibility of the utility)	
NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains:         Number of active AND inactive service connections:         Service connection density:         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set to         Average length of customer service line has been set to         Average operating pressure:         •         COST DATA         Total annual cost of operating water system:         •         Customer retail unit cost (applied to Real Losses):         •         WATER AUDIT DATA VALIDITY SCORE:	?       3,471.94         ?       6       1,710         ?       9       103,32         ?       9       103,32         ?       9       103,32         ?       9       103,32         ?       9       103,32         ?       10       \$87,662,99         ?       5       833         ?       10       \$87,662,99         ?       9       \$11.1         ?       7       \$717.2         OUR SCORE IS: 81 out of 100       100	<ul> <li>3 MG/Yr</li> <li>6 miles</li> <li>20 conn./mile main</li> <li>25 (length of service lin boundary, that is the boundary, that is the ore of 10 has been applied</li> <li>0 psi</li> <li>4 \$/Year</li> <li>4 \$/Year</li> <li>5/Year</li> <li>5/Million gallons Use C</li> </ul>	e responsibility of the utility)	
NON-REVENUE WATER       NON-REVENUE WATER:         = Water Losses + Unbilled Metered + Unbilled Unmetered       SYSTEM DATA         Length of mains:       •         Number of active AND inactive service connections:       •         Number of active AND inactive service connection density:       •         Are customer meters typically located at the curbstop or property line?       •         Average length of customer service line has been set to       •         Average length of customer service line has been set to       •         COST DATA       Total annual cost of operating water system:       •         Customer retail unit cost (applied to Apparent Losses):       •         Variable production cost (applied to Real Losses):       •         WATER AUDIT DATA VALIDITY SCORE:       *** Y(         A weighted scale for the components of consumption       •	?       3,471.94         ?       6       1,710         ?       9       103,32         ?       9       103,32         ?       9       103,32         ?       9       103,32         ?       9       103,32         ?       10       \$87,662,99         ?       5       833         ?       10       \$87,662,99         ?       9       \$11.1         ?       7       \$717.2         OUR SCORE IS: 81 out of 100       100	<ul> <li>3 MG/Yr</li> <li>6 miles</li> <li>20 conn./mile main</li> <li>25 (length of service lin boundary, that is the boundary, that is the ore of 10 has been applied</li> <li>0 psi</li> <li>4 \$/Year</li> <li>4 \$/Year</li> <li>5/Year</li> <li>5/Million gallons Use C</li> </ul>	e responsibility of the utility)	
NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains:         Number of active AND inactive service connections:         Number of active AND inactive service connection density:         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set t         Average length of customer service line has been set t         Average length of customer service line has been set t         COST DATA         Total annual cost of operating water system:         Customer retail unit cost (applied to Apparent Losses):         Variable production cost (applied to Real Losses):         WATER AUDIT DATA VALIDITY SCORE:         #** Y(         A weighted scale for the components of consumption         PRIORITY AREAS FOR ATTENTION:	?       3,471.94         ?       6       1,710         ?       9       103,33         ?       0       103,33         ?       0       103,33         ?       0       103,33         ?       0       103,33         ?       0       103,33         ?       0       103,33         ?       0       103,33         ?       2       0         ?       2       5         0       2       5         ?       3       3         ?       5       83         ?       9       \$1.1         ?       7       \$717.2         OUR SCORE IS: 81 out of 100       n and water loss is included in the	<ul> <li>3 MG/Yr</li> <li>6 miles</li> <li>20 conn./mile main</li> <li>25 (length of service lin boundary, that is the boundary, that is the ore of 10 has been applied</li> <li>0 psi</li> <li>4 \$/Year</li> <li>4 \$/Year</li> <li>5/Year</li> <li>5/Million gallons Use C</li> </ul>	e responsibility of the utility)	
NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains:         Number of active AND inactive service connections:         Number of active AND inactive service connection density:         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set t         Average length of customer service line has been set t         Average operating pressure:         •         COST DATA         Total annual cost of operating water system:         •         Customer retail unit cost (applied to Real Losses):         •         Variable production cost (applied to Real Losses):         •         WATER AUDIT DATA VALIDITY SCORE:         *** Y(         A weighted scale for the components of consumption         PRIORITY AREAS FOR ATTENTION:         Based on the information provided, audit accuracy can be improved by addressing	?       3,471.94         ?       6       1,710         ?       9       103,33         ?       0       103,33         ?       0       103,33         ?       0       103,33         ?       0       103,33         ?       0       103,33         ?       0       103,33         ?       0       103,33         ?       2       0         ?       2       5         0       2       5         ?       3       3         ?       5       83         ?       9       \$1.1         ?       7       \$717.2         OUR SCORE IS: 81 out of 100       n and water loss is included in the	<ul> <li>3 MG/Yr</li> <li>6 miles</li> <li>20 conn./mile main</li> <li>25 (length of service lin boundary, that is the boundary, that is the ore of 10 has been applied</li> <li>0 psi</li> <li>4 \$/Year</li> <li>4 \$/Year</li> <li>5/Year</li> <li>5/Million gallons Use C</li> </ul>	e responsibility of the utility)	
NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains:         Number of active AND inactive service connections:         Service connection density:         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set to         Average length of customer service line has been set to         Average operating pressure:         •         COST DATA         Total annual cost of operating water system:         •         Customer retail unit cost (applied to Apparent Losses):         •         Variable production cost (applied to Real Losses):         •         WATER AUDIT DATA VALIDITY SCORE:         *** Y(         A weighted scale for the components of consumption         PRIORITY AREAS FOR ATTENTION:         Based on the information provided, audit accuracy can be improved by addressing         1: Volume from own sources	?       3,471.94         ?       6       1,710         ?       9       103,33         ?       0       103,33         ?       0       103,33         ?       0       103,33         ?       0       103,33         ?       0       103,33         ?       0       103,33         ?       0       103,33         ?       2       0         ?       2       5         0       2       5         ?       3       3         ?       5       83         ?       9       \$1.1         ?       7       \$717.2         OUR SCORE IS: 81 out of 100       n and water loss is included in the	<ul> <li>3 MG/Yr</li> <li>6 miles</li> <li>20 conn./mile main</li> <li>25 (length of service lin boundary, that is the boundary, that is the ore of 10 has been applied</li> <li>0 psi</li> <li>4 \$/Year</li> <li>4 \$/Year</li> <li>5/Year</li> <li>5/Million gallons Use C</li> </ul>	e responsibility of the utility)	
NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains:         Number of active AND inactive service connections:         Number of active AND inactive service connection density:         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set t         Average length of customer service line has been set t         Average operating pressure:         •         COST DATA         Total annual cost of operating water system:         •         Customer retail unit cost (applied to Real Losses):         •         Variable production cost (applied to Real Losses):         •         WATER AUDIT DATA VALIDITY SCORE:         *** Y(         A weighted scale for the components of consumption         PRIORITY AREAS FOR ATTENTION:         Based on the information provided, audit accuracy can be improved by addressing	?       3,471.94         ?       6       1,710         ?       9       103,33         ?       0       103,33         ?       0       103,33         ?       0       103,33         ?       0       103,33         ?       0       103,33         ?       9       103,33         ?       2       0         ?       2       5         0       zero and a data grading sc       2         ?       5       83         ?       9       \$1.1         ?       7       \$717.2         OUR SCORE IS: 81 out of 100       n and water loss is included in the	<ul> <li>3 MG/Yr</li> <li>6 miles</li> <li>20 conn./mile main</li> <li>25 (length of service lin boundary, that is the boundary, that is the ore of 10 has been applied</li> <li>0 psi</li> <li>4 \$/Year</li> <li>4 \$/Year</li> <li>5/Year</li> <li>5/Million gallons Use C</li> </ul>	e responsibility of the utility)	
NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains:         Number of active AND inactive service connections:         Service connection density:         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set to         Average length of customer service line has been set to         Average operating pressure:         •         COST DATA         Total annual cost of operating water system:         •         Customer retail unit cost (applied to Apparent Losses):         •         Variable production cost (applied to Real Losses):         •         WATER AUDIT DATA VALIDITY SCORE:         *** Y(         A weighted scale for the components of consumption         PRIORITY AREAS FOR ATTENTION:         Based on the information provided, audit accuracy can be improved by addressing         1: Volume from own sources	?       3,471.94         ?       6       1,710         ?       9       103,33         ?       0       103,33         ?       0       103,33         ?       0       103,33         ?       0       103,33         ?       0       103,33         ?       9       103,33         ?       2       0         ?       2       5         0       zero and a data grading sc       2         ?       5       83         ?       9       \$1.1         ?       7       \$717.2         OUR SCORE IS: 81 out of 100       n and water loss is included in the	<ul> <li>3 MG/Yr</li> <li>6 miles</li> <li>20 conn./mile main</li> <li>25 (length of service lin boundary, that is the boundary, that is the ore of 10 has been applied</li> <li>0 psi</li> <li>4 \$/Year</li> <li>4 \$/Year</li> <li>5/Year</li> <li>5/Million gallons Use C</li> </ul>	e responsibility of the utility)	

	ree Water Audit S eporting Workshe		America Copyright ©	WAS v5.0 n Water Works Association. 2014, All Rights Reserved.
?       Click to access definition         *       Click to add a comment         Reporting Year:       2018	a Valley Water District (* 7/2017 - 6/2018	CA3310001)		
Please enter data in the white cells below. Where available, metered values should be us the input data by grading each component (n/a or 1-10) using the drop-down list to the lef	t of the input cell. Hover the i	mouse over the cell to obtain a c		accuracy of
	entered as: MILLION GA			
To select the correct data grading for each input, determine the utility meets or exceeds <u>all</u> criteria for that grad			Master Meter and Supply Error	r Adjustments
WATER SUPPLIED	< Enter grading	in column 'E' and 'J'		-
Volume from own sources: + ?		MG/Yr + ?	1 0 0	MG/Yr
		MG/Yr + ? MG/Yr + ?		MG/Yr MG/Yr
			Enter negative % or value for u	under-registration
WATER SUPPLIED:	31,329.400	MG/Yr	Enter positive % or value for o	ver-registration
AUTHORIZED CONSUMPTION	-	-	Click here	
Billed metered: + ? Billed unmetered: + ?	9 27,918.710 n/a 0.000	MG/Yr MG/Yr	for help u buttons b	ising option elow
Unbilled metered: + ?		MG/Yr	Pcnt: Value	e:
Unbilled unmetered: + ?	5 78.324	MG/Yr	0 0 78.3	24 MG/Yr
	29,092,064	MONG	▲ Use butto	ons to select
AUTHORIZED CONSUMPTION:	28,083.964	MG/Yr		ge of water oplied
WATER LOODER (Meter Runnlind Authorized Computing)	3,245.437	NON		<u>DR</u> alue
WATER LOSSES (Water Supplied - Authorized Consumption)	5,245.457	MG/Yr	Pcnt: ▼ Valu	
Apparent Losses Unauthorized consumption: + ?	78.324	MG/Yr	0.25% O	e. MG/Yr
Default option selected for unauthorized consumption		-		
Customer metering inaccuracies: + ?	8 1,943.713	MG/Yr	6.49% 🖲 🔾	MG/Yr
Systematic data handling errors: + ?		MG/Yr	0.25% 🔘 Ċ	MG/Yr
Default option selected for Systematic data handling Apparent Losses:	g errors - a grading of 5 2,091.833		1	
Apparent Losses.	2,031.000	MG/TI		
Real Losses (Current Annual Real Losses or CARL)		_		
Real Losses = Water Losses - Apparent Losses: ?	1,153.603	MG/Yr		
WATER LOSSES:	3,245.437	MG/Yr		
NON-REVENUE WATER		1		
NON-REVENUE WATER: ?	3,410.690	MG/Yr		
SYSTEM DATA				
Length of mains: + ?	6 1,715.5	miles		
Number of <u>active AND inactive</u> service connections:	9 104,053 61			
Service connection density: ?	01			
Are customer meters typically located at the curbstop or property line?	Yes		e, <u>beyond</u> the property	
Average length of customer service line: + ? Average length of customer service line has been set to zero	and a data grading sco		responsibility of the utility)	
Average operating pressure: + ?				
COST DATA				
	10 \$94,697,612			
Customer retail unit cost (applied to Apparent Losses): + ? Variable production cost (applied to Real Losses): + ?		\$/100 cubic feet (ccf) \$/Million gallons Use Cu	ustemer Detail Linit Cest to value real la	
	φισε.τη		istomer Retail Unit Cost to value real lo	osses
WATER AUDIT DATA VALIDITY SCORE:				
	CODE 18: 02 and at 400 t	***		
	SCORE IS: 83 out of 100 *			
A weighted scale for the components of consumption and v	water loss is included in the c	alculation of the Water Audit Da	ta Validity Score	
PRIORITY AREAS FOR ATTENTION:				
Based on the information provided, audit accuracy can be improved by addressing the for	ollowing components:			
1: Volume from own sources				
2: Unauthorized consumption				
3: Systematic data handling errors				

		Water Audit So ting Workshee				WA: American Water Work pyright © 2014, All Rigi	
?     Click to access definition       *     Click to add a comment   Reporting Year:		y Water District (C 7/2018 - 6/2019	A3310001)			]	
Please enter data in the white cells below. Where available, metered values shi 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 of	over the cell to obtain a desc			ne accuracy of the	
			LONS (US) PER YEAR				_
To select the correct data grading for each input the utility meets or exceeds <u>all</u> criteria				Master M	eter and Supply	y Error Adjustmen	ts
WATER SUPPLIED	<	Enter grading	in column 'E' and 'J'	> Pcnt	:	Value:	
Volume from own sources:		30,083.503		? 1	0		MG/Yr
Water imported: Water exported:			MG/Yr + MG/Yr +	?		_	MG/Yr MG/Yr
				Enter neg		e for under-registr	ration
WATER SUPPLIED:		30,083.503	MG/Yr	Enter pos	itive % or value	e for over-registrat	ion
AUTHORIZED CONSUMPTION						ick here: ?	
Billed metered: Billed unmetered:		26,282.950 0.000				help using option to help using option	
Unbilled metered:		158.700		Pcnt	:	Value:	_
Unbilled unmetered:	+ ? 5	75.209	MG/Yr		00	75.209	MG/Yr
					.▲ Us	e buttons to select	
AUTHORIZED CONSUMPTION:	?	26,516.859	MG/Yr			ercentage of water supplied	
						ÖR	
WATER LOSSES (Water Supplied - Authorized Consumption)		3,566.644	MG/Yr			value	
Apparent Losses				Pcnt		Value:	-
Unauthorized consumption:		75.209		0.2	25% 🔘 🔾		MG/Yr
Default option selected for unauthorized con		0 11				1	
Customer metering inaccuracies: Systematic data handling errors:		1,657.872 65.707			0% <b>O</b>	_	MG/Yr MG/Yr
Default option selected for Systematic da							-
Apparent Losses	?	1,798.788	MG/Yr				
Real Losses (Current Annual Real Losses or CARL)							
Real Losses = Water Losses - Apparent Losses:	?	1,767.856	MG/Yr				
Real Losses = Water Losses - Apparent Losses WATER LOSSES		1,767.856 3,566.644					
WATER LOSSES		3,566.644	MG/Yr				-
WATER LOSSES:			MG/Yr				-
WATER LOSSES		3,566.644	MG/Yr				-
WATER LOSSES NON-REVENUE WATER = Water Losses + Unbilled Metered + Unbilled Unmetered SYSTEM DATA Length of mains:		3,566.644 3,800.553 1,724.0	MG/Yr MG/Yr				-
WATER LOSSES: <u>NON-REVENUE WATER</u> = Water Losses + Unbilled Metered + Unbilled Unmetered SYSTEM DATA Length of mains: Number of <u>active AND inactive</u> service connections:	? ? + ? 6 + ? 9	3,566.644 3,800.553 1,724.0 104,738	MG/Yr MG/Yr miles				-
WATER LOSSES MON-REVENUE WATER = Water Losses + Unbilled Metered + Unbilled Unmetered SYSTEM DATA Length of mains: Number of <u>active AND inactive</u> service connections: Service connection density:	? + ? 6 + ? 9 ?	3,566.644 3,800.553 1,724.0 104,738 61	MG/Yr MG/Yr miles				-
WATER LOSSES: NON-REVENUE WATER = Water Losses + Unbilled Metered + Unbilled Unmetered SYSTEM DATA Length of mains: Number of <u>active AND inactive</u> service connections: Service connection density: Are customer meters typically located at the curbstop or property line?	2 + ? 6 + ? 9 ?	3,566.644 3,800.553 1,724.0 104,738	MG/Yr MG/Yr miles conn./mile main (length of service				-
WATER LOSSES: <u>NON-REVENUE WATER</u> = Water Losses + Unbilled Metered + Unbilled Unmetered SYSTEM DATA Length of mains: Number of <u>active AND inactive</u> service connections: Service connection density:	2 4 7 6 4 7 9 7 9 7 1 1 1 1 1 1 1 1 1 1 1 1 1	3,566.644 3,800.553 1,724.0 104,738 61 Yes	MG/Yr MG/Yr miles conn./mile main (length of service boundary, that is	the responsibili			-
WATER LOSSES: MON-REVENUE WATER = Water Losses + Unbilled Metered + Unbilled Unmetered SYSTEM DATA Length of mains: Number of <u>active AND inactive</u> service connections: Service connection density: Are customer meters typically located at the curbstop or property line? <u>Average</u> length of customer service line:	+ ? 6 + ? 9 ? + ? set to zero and a	3,566.644 3,800.553 1,724.0 104,738 61 Yes	MG/Yr MG/Yr miles conn./mile main (length of service boundary, that is o of 10 has been applied	the responsibili			-
WATER LOSSES: NON-REVENUE WATER = Water Losses + Unbilled Metered + Unbilled Unmetered SYSTEM DATA Length of mains: Number of <u>active AND inactive</u> service connections: Service connection density: Are customer meters typically located at the curbstop or property line? <u>Average</u> length of customer service line: Average length of customer service line has been Average operating pressure:	+ ? 6 + ? 9 ? + ? set to zero and a	3,566.644 3,800.553 1,724.0 104.738 61 Yes a data grading score	MG/Yr MG/Yr miles conn./mile main (length of service boundary, that is o of 10 has been applied	the responsibili			-
WATER LOSSES: MON-REVENUE WATER = Water Losses + Unbilled Metered + Unbilled Unmetered SYSTEM DATA Length of mains: Number of <u>active AND inactive</u> service connections: Service connection density: Are customer meters typically located at the curbstop or property line? Average length of customer service line has been	+ ? 6 + ? 9 ? + ? set to zero and a	3,566.644 3,800.553 1,724.0 104.738 61 Yes a data grading score	MG/Yr MG/Yr miles conn./mile main (length of service boundary, that is o of 10 has been applied	the responsibili			-
WATER LOSSES           NON-REVENUE WATER           = Water Losses + Unbilled Metered + Unbilled Unmetered           SYSTEM DATA           Length of mains:           Number of active AND inactive service connection density:           Are customer meters typically located at the curbstop or property line?           Average length of customer service line has been           Average length of customer service           COST DATA	? + ? set to zero and a + ? 5 + ? 10	3,566.644 3,800.553 1,724.0 104,738 61 Yes data grading score 84.0 \$105,096,574	MG/Yr MG/Yr miles conn./mile main (length of service boundary, that is o of 10 has been applied psi	the responsibili			-
WATER LOSSES           NON-REVENUE WATER           = Water Losses + Unbilled Metered + Unbilled Unmetered           SYSTEM DATA           Length of mains:           Number of active AND inactive service connections:           Service connection density:           Are customer meters typically located at the curbstop or property line?           Average length of customer service line has been           Average length of customer service line has been           Average operating pressure:           COST DATA           Total annual cost of operating water system:           Customer retail unit cost (applied to Apparent Losses):	<ul> <li>?</li> <li>?&lt;</li></ul>	3,566.644 3,800.553 1,724.0 104.738 61 Yes data grading score 84.0 \$105,096,574 \$1.57	MG/Yr MG/Yr miles conn./mile main (length of service boundary, that is o of 10 has been applied psi \$/Year \$/100 cubic feet (ccf)	the responsibili	ty of the utility)		-
WATER LOSSES:         NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains:         Number of active AND inactive service connection density:         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been         Average operating pressure:         COST DATA         Total annual cost of operating water system:	<ul> <li>?</li> <li>?&lt;</li></ul>	3,566.644 3,800.553 1,724.0 104.738 61 Yes data grading score 84.0 \$105,096,574 \$1.57	MG/Yr MG/Yr miles conn./mile main (length of service boundary, that is o of 10 has been applied psi \$/Year \$/100 cubic feet (ccf)	the responsibili		 le real losses	-
WATER LOSSES           NON-REVENUE WATER           = Water Losses + Unbilled Metered + Unbilled Unmetered           SYSTEM DATA           Length of mains:           Number of active AND inactive service connections:           Service connection density:           Are customer meters typically located at the curbstop or property line?           Average length of customer service line has been           Average length of customer service line has been           Average operating pressure:           COST DATA           Total annual cost of operating water system:           Customer retail unit cost (applied to Apparent Losses):	<ul> <li>?</li> <li>?&lt;</li></ul>	3,566.644 3,800.553 1,724.0 104.738 61 Yes data grading score 84.0 \$105,096,574 \$1.57	MG/Yr MG/Yr miles conn./mile main (length of service boundary, that is o of 10 has been applied psi \$/Year \$/100 cubic feet (ccf)	the responsibili	ty of the utility)	e real losses	-
WATER LOSSES:         NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains:         Number of active AND inactive service connections:         Service connection density:         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been         Average length of customer service line has been         Average operating pressure:         COST DATA         Total annual cost of operating water system:         Customer retail unit cost (applied to Apparent Losses):         Variable production cost (applied to Real Losses):         WATER AUDIT DATA VALIDITY SCORE:	<ul> <li>?</li> <li>?&lt;</li></ul>	3,566.644 3,800.553 1,724.0 104,738 61 Yes data grading score 84.0 \$105,096,574 \$1.57 \$691.55	MG/Yr MG/Yr miles conn./mile main (length of service boundary, that is of 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/Million gallons Us	the responsibili	ty of the utility)	e real losses	-
WATER LOSSES:         NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains:         Number of active AND inactive service connections:         Service connection density:         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been         Average length of customer service line has been         Average operating pressure:         COST DATA         Total annual cost of operating water system:         Customer retail unit cost (applied to Apparent Losses):         Variable production cost (applied to Real Losses):         WATER AUDIT DATA VALIDITY SCORE:	<ul> <li>?</li> <li>?</li></ul>	3,566.644 3,800.553 1,724.0 104.738 61 Yes 1 data grading score 84.0 \$105,096,574 \$1.57 \$691.55 \$691.55 <b>IS: 82 out of 100 **</b>	MG/Yr MG/Yr miles conn./mile main (length of service boundary, that is to f 10 has been applied psi \$/Year \$/Year \$/Million gallons Us	the responsibili	ty of the utility)	ereal losses	-
WATER LOSSES:         NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains:         Number of active AND inactive service connections:         Service connection density:         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been         Average length of customer service line has been         Average operating pressure:         COST DATA         Total annual cost of operating water system:         Customer retail unit cost (applied to Apparent Losses):         Variable production cost (applied to Real Losses):         Variable production cost (applied to Real Losses):         A weighted scale for the components of consult	<ul> <li>?</li> <li>?</li></ul>	3,566.644 3,800.553 1,724.0 104.738 61 Yes 1 data grading score 84.0 \$105,096,574 \$1.57 \$691.55 \$691.55 <b>IS: 82 out of 100 **</b>	MG/Yr MG/Yr miles conn./mile main (length of service boundary, that is to f 10 has been applied psi \$/Year \$/Year \$/Million gallons Us	the responsibili	ty of the utility)	e real losses	-
WATER LOSSES:         NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains:         Number of active AND inactive service connections:         Service connection density:         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been         Average length of customer service line has been         Average length of customer service line has been         Average operating pressure:         COST DATA         Total annual cost of operating water system:         Customer retail unit cost (applied to Apparent Losses):         Variable production cost (applied to Real Losses):         Variable production cost (applied to Real Losses):         A weighted scale for the components of consult         PRIORITY AREAS FOR ATTENTION:		3,566.644 3,800.553 1,724.0 104,738 61 Yes data grading score 84.0 \$105,096,574 \$1.57 \$691.55 <b>IS: 82 out of 100 **</b> ss is included in the ca	MG/Yr MG/Yr miles conn./mile main (length of service boundary, that is to f 10 has been applied psi \$/Year \$/Year \$/Million gallons Us	the responsibili	ty of the utility)	e real losses	-
WATER LOSSES:         NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains:         Number of active AND inactive service connections:         Service connection density:         Are customer meters typically located at the curbstop or property line?         Average length of customer service line         Average length of customer service line has been         Average length of customer service line has been         Average operating pressure:         COST DATA         Total annual cost of operating water system:         Customer retail unit cost (applied to Apparent Losses):         Variable production cost (applied to Real Losses):         Based on the information provided, audit accuracy can be improved by address		3,566.644 3,800.553 1,724.0 104,738 61 Yes data grading score 84.0 \$105,096,574 \$1.57 \$691.55 <b>IS: 82 out of 100 **</b> ss is included in the ca	MG/Yr MG/Yr miles conn./mile main (length of service boundary, that is to f 10 has been applied psi \$/Year \$/Year \$/Million gallons Us	the responsibili	ty of the utility)	e real losses	-
WATER LOSSES:         NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains:         Number of active AND inactive service connections:         Service connection density:         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been         Average operating pressure:         COST DATA         Total annual cost of operating water system:         Customer retail unit cost (applied to Apparent Losses):         Variable production cost (applied to Real Losses):         Variable production cost (applied to Real Losses):         Variable production cost (applied to Real Losses):         A weighted scale for the components of consur         PRIORITY AREAS FOR ATTENTION:         Based on the information provided, audit accuracy can be improved by address         1: Volume from own sources		3,566.644 3,800.553 1,724.0 104,738 61 Yes data grading score 84.0 \$105,096,574 \$1.57 \$691.55 <b>IS: 82 out of 100 **</b> ss is included in the ca	MG/Yr MG/Yr miles conn./mile main (length of service boundary, that is to f 10 has been applied psi \$/Year \$/Year \$/Million gallons Us	the responsibili	ty of the utility)	ie real losses	-
WATER LOSSES:         NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains:         Number of active AND inactive service connections:         Service connection density:         Are customer meters typically located at the curbstop or property line?         Average length of customer service line         Average length of customer service line has been         Average length of customer service line has been         Average operating pressure:         COST DATA         Total annual cost of operating water system:         Customer retail unit cost (applied to Apparent Losses):         Variable production cost (applied to Real Losses):         Based on the information provided, audit accuracy can be improved by address		3,566.644 3,800.553 1,724.0 104,738 61 Yes data grading score 84.0 \$105,096,574 \$1.57 \$691.55 <b>IS: 82 out of 100 **</b> ss is included in the ca	MG/Yr MG/Yr miles conn./mile main (length of service boundary, that is to f 10 has been applied psi \$/Year \$/Year \$/Million gallons Us	the responsibili	ty of the utility)	le real losses	-
WATER LOSSES:         NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains:         Number of active AND inactive service connections:         Service connection density:         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been         Average operating pressure:         COST DATA         Total annual cost of operating water system:         Customer retail unit cost (applied to Apparent Losses):         Variable production cost (applied to Real Losses):         Variable production cost (applied to Real Losses):         Variable production cost (applied to Real Losses):         A weighted scale for the components of consur         PRIORITY AREAS FOR ATTENTION:         Based on the information provided, audit accuracy can be improved by address         1: Volume from own sources		3,566.644 3,800.553 1,724.0 104,738 61 Yes data grading score 84.0 \$105,096,574 \$1.57 \$691.55 <b>IS: 82 out of 100 **</b> ss is included in the ca	MG/Yr MG/Yr miles conn./mile main (length of service boundary, that is to f 10 has been applied psi \$/Year \$/Year \$/Million gallons Us	the responsibili	ty of the utility)	e real losses	-

	AW		e Water Audit So orting Workshee			WA American Water Work Copyright © 2014, All Rig	
Click to access definition     Click to add a comment	Water Audit Report for: C Reporting Year:	oachella Va 2020	Iley Water District Co 7/2019 - 6/2020	ve (CA3310001)			
	below. Where available, metered values should ent (n/a or 1-10) using the drop-down list to the					in the accuracy of the	
	All volume	s to be ente	ered as: MILLION GAL	LONS (US) PER YEAR			_
To sele	ct the correct data grading for each input, or the utility meets or exceeds <u>all</u> criteria for				Master Meter and Su	pply Error Adjustmen	ts
WATER SUPPLIED	, _	-	-	in column 'E' and 'J'		Value:	
	Volume from own sources:	+ ? 9	29,803.000			11.850	MG/Yr
	Water imported: Water exported:	+ ? n/a + ? n/a	0.000	MG/Yr + ? MG/Yr + ?			MG/Yr MG/Yr
						value for under-regist	-
	WATER SUPPLIED:		29,791.150	MG/Yr	Enter positive % or v	alue for over-registrat	tion
AUTHORIZED CONSUMPTION						Click here: ?	_
	Billed metered: Billed unmetered:	+ ? 9 + ? n/a	26,039.750 0.000			for help using option buttons below	
	Unbilled metered:	+ ? 10	228.480		Pcnt:	Value:	
	Unbilled unmetered:	+ ? 5	74.478	MG/Yr	0	9 74.478	MG/Yr
					<b>^</b>	Use buttons to select	
	AUTHORIZED CONSUMPTION:	?	26,342.708	MG/Yr	·	percentage of water	
					_	supplied <u>OR</u>	
WATER LOSSES (Water Supp	lied - Authorized Consumption)		3,448.442	MG/Yr		value	
Apparent Losses	_				Pcnt:	▼ Value:	-
	Unauthorized consumption:		74.478		0.25%		MG/Yr
Default	option selected for unauthorized consu		<u> </u>			~ ]	-
	Customer metering inaccuracies: Systematic data handling errors:	+ ? 9 + ? 5	1,356.368 65.099		4.91%		MG/Yr MG/Yr
Defa	ult option selected for Systematic data I					0	1
	Apparent Losses:	?	1,495.945	MG/Yr			
Real Losses (Current Annual I	Real Losses or CARL)						
Roal Losso	s = Water I osses - Annarent I osses	2	1 952 497	MG/Vr			
Real Losse	s = Water Losses - Apparent Losses:	?	1,952.497				
Real Losse	s = Water Losses - Apparent Losses: WATER LOSSES:	?	1,952.497 3,448.442				_
Real Losse	WATER LOSSES:	<u> </u>	3,448.442	MG/Yr			-
NON-REVENUE WATER	WATER LOSSES:	?	· · · · · ·	MG/Yr			-
	WATER LOSSES:	<u> </u>	3,448.442	MG/Yr			-
NON-REVENUE WATER = Water Losses + Unbilled Metered SYSTEM DATA	WATER LOSSES: NON-REVENUE WATER: + Unbilled Unmetered Length of mains:	<u> </u>	3,448.442	MG/Yr MG/Yr			-
NON-REVENUE WATER = Water Losses + Unbilled Metered SYSTEM DATA	WATER LOSSES: NON-REVENUE WATER: + Unbilled Unmetered Length of mains: ctive AND inactive service connections:	?	3,448.442 3,751.400 1,657.4 105,612	MG/Yr MG/Yr miles			-
NON-REVENUE WATER = Water Losses + Unbilled Metered SYSTEM DATA	WATER LOSSES: NON-REVENUE WATER: + Unbilled Unmetered Length of mains:	?	3,448.442 3,751.400	MG/Yr MG/Yr miles			-
NON-REVENUE WATER = Water Losses + Unbilled Metered SYSTEM DATA Number of <u>a</u> Are customer meters typically	WATER LOSSES: NON-REVENUE WATER: + Unbilled Unmetered Length of mains: Ctive AND inactive service connections: Service connection density: located at the curbstop or property line?	?	3,448.442 3,751.400 1,657.4 105,612	MG/Yr MG/Yr miles conn./mile main (length of service lir	ie, <u>beyond</u> the property		-
NON-REVENUE WATER = Water Losses + Unbilled Metered SYSTEM DATA Number of a Are customer meters typically	WATER LOSSES: NON-REVENUE WATER: + Unbilled Unmetered Length of mains: ctive AND inactive service connections: Service connection density: located at the curbstop or property line? Average length of customer service line:	7 7 9 7 9 7 9 7	3,448.442 3,751.400 1,657.4 105,612 64 Yes	MG/Yr MG/Yr miles conn./mile main (length of service lin boundary, that is th	ie, <u>beyond</u> the property e responsibility of the utilit	y)	-
NON-REVENUE WATER = Water Losses + Unbilled Metered SYSTEM DATA Number of a Are customer meters typically	WATER LOSSES: NON-REVENUE WATER: + Unbilled Unmetered Length of mains: Ctive AND inactive service connections: Service connection density: located at the curbstop or property line?	2 9 2 9 2 9 2 9 2 1 2 9 2 1 2 9	3,448.442 3,751.400 1,657.4 105,612 64 Yes	MG/Yr MG/Yr miles conn./mile main (length of service lin boundary, that is th o of 10 has been applied	ie, <u>beyond</u> the property e responsibility of the utilit	y)	-
NON-REVENUE WATER = Water Losses + Unbilled Metered SYSTEM DATA Number of a Are customer meters typically	WATER LOSSES: NON-REVENUE WATER: + Unbilled Unmetered Length of mains: <u>ctive AND inactive</u> service connections: Service connection density: located at the curbstop or property line? <u>Average</u> length of customer service line: th of customer service line has been set	2 9 2 9 2 9 2 9 2 1 2 9 2 1 2 9	3,448.442 3,751.400 1,657.4 105,612 64 Yes d a data grading score	MG/Yr MG/Yr miles conn./mile main (length of service lin boundary, that is th o of 10 has been applied	ie, <u>beyond</u> the property e responsibility of the utilit	у)	-
NON-REVENUE WATER = Water Losses + Unbilled Metered SYSTEM DATA Number of a Are customer meters typically	WATER LOSSES: NON-REVENUE WATER: + Unbilled Unmetered Length of mains: <u>ctive AND inactive</u> service connections: Service connection density: located at the curbstop or property line? <u>Average</u> length of customer service line: th of customer service line has been set	2 9 2 9 2 9 2 9 2 1 2 9 2 1 2 9	3,448.442 3,751.400 1,657.4 105,612 64 Yes d a data grading score	MG/Yr MG/Yr miles conn./mile main (length of service lin boundary, that is th o of 10 has been applied	ie, <u>beyond</u> the property e responsibility of the utilit	y)	-
NON-REVENUE WATER = Water Losses + Unbilled Metered SYSTEM DATA Number of a Are customer meters typically Average leng COST DATA Tota	WATER LOSSES: NON-REVENUE WATER: + Unbilled Unmetered Length of mains: Ctive AND inactive service connections: Service connection density: located at the curbstop or property line? Average length of customer service line: Average operating pressure: Average operating pressure:	2 9 2 9 2 9 2 9 2 1 2 9 2 1 2 9	3,448.442 3,751.400 1,657.4 105,612 64 Yes d a data grading score 84.0 \$107,086,412	MG/Yr MG/Yr miles conn./mile main (length of service lir boundary, that is the of 10 has been applied psi	ie, <u>beyond</u> the property e responsibility of the utilit	y)	-
NON-REVENUE WATER = Water Losses + Unbilled Metered SYSTEM DATA Number of g Are customer meters typically Average leng COST DATA Tota Customer retai	WATER LOSSES: NON-REVENUE WATER: + Unbilled Unmetered Length of mains: ctive AND inactive service connections: Service connection density: located at the curbstop or property line? Average length of customer service line: th of customer service line has been set Average operating pressure: I annual cost of operating water system: I unit cost (applied to Apparent Losses):	? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ?	3,448.442 3,751.400 1,657.4 105,612 64 Yes d a data grading score 84.0 \$107,086,412 \$1.67	MG/Yr MG/Yr miles conn./mile main (length of service lir boundary, that is the of 10 has been applied psi \$/Year \$/100 cubic feet (ccf)	e responsibility of the utilit		-
NON-REVENUE WATER = Water Losses + Unbilled Metered SYSTEM DATA Number of g Are customer meters typically Average leng COST DATA Tota Customer retai	WATER LOSSES: NON-REVENUE WATER: + Unbilled Unmetered Length of mains: Ctive AND inactive service connections: Service connection density: located at the curbstop or property line? Average length of customer service line: Average operating pressure: Average operating pressure:	? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ?	3,448.442 3,751.400 1,657.4 105,612 64 Yes d a data grading score 84.0 \$107,086,412 \$1.67	MG/Yr MG/Yr miles conn./mile main (length of service lir boundary, that is the of 10 has been applied psi \$/Year \$/100 cubic feet (ccf)	e, <u>beyond</u> the property e responsibility of the utilit		-
NON-REVENUE WATER = Water Losses + Unbilled Metered SYSTEM DATA Number of g Are customer meters typically Average leng COST DATA Tota Customer retai	WATER LOSSES: NON-REVENUE WATER: + Unbilled Unmetered Length of mains: ctive AND inactive service connections: Service connection density: located at the curbstop or property line? Average length of customer service line: th of customer service line has been set Average operating pressure: I annual cost of operating water system: I unit cost (applied to Apparent Losses): roduction cost (applied to Real Losses):	? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ?	3,448.442 3,751.400 1,657.4 105,612 64 Yes d a data grading score 84.0 \$107,086,412 \$1.67	MG/Yr MG/Yr miles conn./mile main (length of service lir boundary, that is the of 10 has been applied psi \$/Year \$/100 cubic feet (ccf)	e responsibility of the utilit		-
NON-REVENUE WATER = Water Losses + Unbilled Metered SYSTEM DATA Number of a Are customer meters typically Average leng COST DATA Tota Customer retai Variable p	WATER LOSSES: NON-REVENUE WATER: + Unbilled Unmetered Length of mains: ctive AND inactive service connections: Service connection density: located at the curbstop or property line? Average length of customer service line: th of customer service line has been set Average operating pressure: I annual cost of operating water system: I unit cost (applied to Apparent Losses): roduction cost (applied to Real Losses): SCORE:	?       ? <t< td=""><td>3,448.442 3,751.400 1,657.4 105,612 64 Yes d a data grading score 84.0 \$107,086,412 \$1.67</td><td>MG/Yr MG/Yr miles conn./mile main (length of service lir boundary, that is the of 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/Million gallons Use C</td><td>e responsibility of the utilit</td><td></td><td>-</td></t<>	3,448.442 3,751.400 1,657.4 105,612 64 Yes d a data grading score 84.0 \$107,086,412 \$1.67	MG/Yr MG/Yr miles conn./mile main (length of service lir boundary, that is the of 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/Million gallons Use C	e responsibility of the utilit		-
NON-REVENUE WATER  = Water Losses + Unbilled Metered SYSTEM DATA  Number of a Are customer meters typically Average leng COST DATA  Cost DATA  Tota Customer retai Variable p  WATER AUDIT DATA VALIDITY	WATER LOSSES: NON-REVENUE WATER: + Unbilled Unmetered Length of mains: ctive AND inactive service connections: Service connection density: located at the curbstop or property line? Average length of customer service line: th of customer service line has been set Average operating pressure: I annual cost of operating water system: I unit cost (applied to Apparent Losses): roduction cost (applied to Real Losses): SCORE:	2 9 2 9 2 9 2 10 4 2 5 5 10 4 2 5 4 2 10 4 2 10 4 2 7 10 4 7 10 7 10 7 7	3,448.442 3,751.400 1,657.4 105,612 64 Yes d a data grading score 84.0 \$107,086,412 \$1.67 \$718.28 RE IS: 86 out of 100 **	MG/Yr MG/Yr miles conn./mile main (length of service lin boundary, that is the of 10 has been applied psi \$/Year \$/Year \$/100 cubic feet (ccf) \$/Million gallons Use C	e responsibility of the utilit		-
NON-REVENUE WATER  = Water Losses + Unbilled Metered SYSTEM DATA  Are customer meters typically Average leng COST DATA  Tota Customer retai Variable p  WATER AUDIT DATA VALIDITY Av	WATER LOSSES: NON-REVENUE WATER: + Unbilled Unmetered Length of mains: <u>ctive AND inactive</u> service connections: Service connection density: located at the curbstop or property line? Average length of customer service line: th of customer service line has been set Average operating pressure: I annual cost of operating water system: I unit cost (applied to Apparent Losses): roduction cost (applied to Real Losses): SCORE: ***	2 9 2 9 2 9 2 10 4 2 5 5 10 4 2 5 4 2 10 4 2 10 4 2 7 10 4 7 10 7 10 7 7	3,448.442 3,751.400 1,657.4 105,612 64 Yes d a data grading score 84.0 \$107,086,412 \$1.67 \$718.28 RE IS: 86 out of 100 **	MG/Yr MG/Yr miles conn./mile main (length of service lin boundary, that is the of 10 has been applied psi \$/Year \$/Year \$/100 cubic feet (ccf) \$/Million gallons Use C	e responsibility of the utilit		-
NON-REVENUE WATER      = Water Losses + Unbilled Metered SYSTEM DATA      Number of g      Are customer meters typically     Average leng      COST DATA      Tota     Customer retai     Variable p      WATER AUDIT DATA VALIDITY      Average FOR ATTENT	WATER LOSSES: NON-REVENUE WATER: + Unbilled Unmetered Length of mains: ctive AND inactive service connections: Service connection density: located at the curbstop or property line? Average length of customer service line: th of customer service line has been set Average operating pressure: I annual cost of operating water system: I unit cost (applied to Apparent Losses): roduction cost (applied to Real Losses): SCORE: *** reighted scale for the components of consumption:	?       9         ?       9         ?       9         ?       9         ?       9         ?       10         *       ?	3,448.442 3,751.400 1,657.4 105,612 64 Yes d a data grading score 84.0 \$107,086,412 \$1.67 \$718.28 RE IS: 86 out of 100 ** r loss is included in the ca	MG/Yr MG/Yr miles conn./mile main (length of service lin boundary, that is the of 10 has been applied psi \$/Year \$/Year \$/100 cubic feet (ccf) \$/Million gallons Use C	e responsibility of the utilit		-
NON-REVENUE WATER  = Water Losses + Unbilled Metered SYSTEM DATA  Number of g Are customer meters typically Average leng COST DATA  Cost DATA  Tota Customer retai Variable p  WATER AUDIT DATA VALIDITY  Average leng Are Cost DATA  PRIORITY AREAS FOR ATTENT Based on the information provided	WATER LOSSES: NON-REVENUE WATER: + Unbilled Unmetered Length of mains: <u>ctive AND inactive</u> service connections: Service connection density: located at the curbstop or property line? Average length of customer service line: th of customer service line has been set Average operating pressure: Average operating pressure: I annual cost of operating water system: I unit cost (applied to Apparent Losses): roduction cost (applied to Real Losses): SCORE: ***	?       9         ?       9         ?       9         ?       9         ?       9         ?       10         *       ?	3,448.442 3,751.400 1,657.4 105,612 64 Yes d a data grading score 84.0 \$107,086,412 \$1.67 \$718.28 RE IS: 86 out of 100 ** r loss is included in the ca	MG/Yr MG/Yr miles conn./mile main (length of service lin boundary, that is the of 10 has been applied psi \$/Year \$/Year \$/100 cubic feet (ccf) \$/Million gallons Use C	e responsibility of the utilit		-
NON-REVENUE WATER  = Water Losses + Unbilled Metered SYSTEM DATA  Number of a Are customer meters typically Average leng COST DATA  COST DATA  Tota Customer retai Variable p  WATER AUDIT DATA VALIDITY  Avecustation provided I: Volume from own sources	WATER LOSSES: NON-REVENUE WATER: + Unbilled Unmetered Length of mains: ctive AND inactive service connections: Service connection density: located at the curbstop or property line? Average length of customer service line: th of customer service line has been set Average operating pressure: I annual cost of operating water system: I unit cost (applied to Apparent Losses): roduction cost (applied to Real Losses): SCORE: *** reighted scale for the components of consumption:	?       9         ?       9         ?       9         ?       9         ?       9         ?       10         *       ?	3,448.442 3,751.400 1,657.4 105,612 64 Yes d a data grading score 84.0 \$107,086,412 \$1.67 \$718.28 RE IS: 86 out of 100 ** r loss is included in the ca	MG/Yr MG/Yr miles conn./mile main (length of service lin boundary, that is the of 10 has been applied psi \$/Year \$/Year \$/100 cubic feet (ccf) \$/Million gallons Use C	e responsibility of the utilit		-
NON-REVENUE WATER  = Water Losses + Unbilled Metered SYSTEM DATA  Number of g Are customer meters typically Average leng COST DATA  Cost DATA  Tota Customer retai Variable p  WATER AUDIT DATA VALIDITY  Average leng Are Cost DATA  PRIORITY AREAS FOR ATTENT Based on the information provided	WATER LOSSES: NON-REVENUE WATER: + Unbilled Unmetered Length of mains: Ctive AND inactive service connections: Service connection density: located at the curbstop or property line? Average length of customer service line: th of customer service line has been set Average operating pressure: I annual cost of operating water system: I unit cost (applied to Apparent Losses): roduction cost (applied to Real Losses): SCORE: *** reighted scale for the components of consumption ION: audit accuracy can be improved by addressing	?       9         ?       9         ?       9         ?       9         ?       9         ?       10         *       ?	3,448.442 3,751.400 1,657.4 105,612 64 Yes d a data grading score 84.0 \$107,086,412 \$1.67 \$718.28 RE IS: 86 out of 100 ** r loss is included in the ca	MG/Yr MG/Yr miles conn./mile main (length of service lin boundary, that is the of 10 has been applied psi \$/Year \$/Year \$/100 cubic feet (ccf) \$/Million gallons Use C	e responsibility of the utilit		-

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				_		Copyright © 2014, All Right	its Reserved
Click to access definition     Click to add a comment	Water Audit Report for: C Reporting Year:	coachella Va 2020	alley Water District ID0 7/2019 - 6/2020	8 (CA3310048)			
	below. Where available, metered values shoulent (n/a or 1-10) using the drop-down list to the					in the accuracy of the	
······································	( , 0 ,			LONS (US) PER YEAR			
To sele	ct the correct data grading for each input,						•
WATER SUPPLIED	the utility meets or exceeds <u>all</u> criteria for	-	-	in column 'E' and 'J'		pply Error Adjustments Value:	S
WATER SUFFLIED	Volume from own sources:	+ ? 9	886.380		T CIIL.	2	MG/Yr
	Water imported:	+ ? n/a		MG/Yr + ? MG/Yr + ?			MG/Yr MG/Yr
	Water exported:	+ ? n/a	0.000	MG/11 + ?		/alue for under-registra	1
	WATER SUPPLIED:		886.286	MG/Yr	-	alue for over-registratio	
AUTHORIZED CONSUMPTION	L					Click here: ?	
	Billed metered: Billed unmetered:	+ ? 9 + ? n/a	766.190	MG/Yr MG/Yr		for help using option buttons below	
	Unbilled metered:	+ ? 10		MG/Yr	Pcnt:	Value:	
	Unbilled unmetered:	+ ? 5	2.216	MG/Yr		2.216	MG/Yr
		-	777.000		<b>^</b>	Use buttons to select	
	AUTHORIZED CONSUMPTION:	?	777.936	MG/Yr		percentage of water supplied	
					_	OR value	
	lied - Authorized Consumption)		108.350	MG/Yr	_		
Apparent Losses	Unauthorized consumption:	+ 2	2 216	MG/Yr	Pcnt: 0.25% ( )	★ Value:	MG/Yr
Default	option selected for unauthorized consu				0.2370		100/11
	Customer metering inaccuracies:	+ ? 9	85.043	MG/Yr	9.88%	2	MG/Yr
	Systematic data handling errors:			MG/Yr	0.25% 🔘 (		MG/Yr
Defa	ult option selected for Systematic data Apparent Losses:	handling er	rors - a grading of 5 is 89.175		1		
	Apparent Losses.		00.170				
Real Losses (Current Annual I	Real Losses or CARL)						
Real Losse	s = Water Losses - Apparent Losses:	?	19.176	MG/Yr			
	WATER LOSSES:		108.350	MG/Yr			
NON-REVENUE WATER							
- Mater Lesses 1 Linkilled Material	NON-REVENUE WATER:	?	120.096	MG/Yr			
= Water Losses + Unbilled Metered SYSTEM DATA	+ Unbilled Unmetered						•
	Length of mains:	+ ? 9	116.4	miles			
Number of <u>a</u>	ctive AND inactive service connections:	+ ? 9	1,698	<i>(</i>			
	Service connection density:	?	15	conn./mile main			
	located at the curbstop or property line?		Yes		e, beyond the property		
	Average length of customer service line: th of customer service line has been se	t to zero an	d a data grading score		e responsibility of the utility	4)	
	Average operating pressure:						
-							
COST DATA							
	I annual cost of operating water system:		\$4,926,393				
	I unit cost (applied to Apparent Losses): roduction cost (applied to Real Losses):	+ ? 10 + ? 7		\$/100 cubic feet (ccf) \$/Million gallons Use C	ustomer Retail Unit Cost to v	alue real losses	
. <u></u>							
WATER AUDIT DATA VALIDITY	SCORE:						
		YOURSCO	RE IS: 86 out of 100 **	*			
							l
	veighted scale for the components of consump	non and wate	er loss is included in the ca	inculation of the water Audit Da	ata validity Score		
PRIORITY AREAS FOR ATTENT							
	, audit accuracy can be improved by addressir	g the followin	g components:				
1: Volume from own sources							
2: Unauthorized consumption							
3: Systematic data handling e							

	AV		e Water Audit So orting Workshee			WAS v5.0 American Water Works Associ
? Click to access definition	Water Audit Report for:	-		_		Copyright © 2014, All Rights Rese
+ Click to add a comment	Reporting Year:	2020	7/2019 - 6/2020			
	below. Where available, metered values shou ent (n/a or 1-10) using the drop-down list to the					in the accuracy of the
				LONS (US) PER YEAR		
I o sele	ct the correct data grading for each input, the utility meets or exceeds <u>all</u> criteria fo				Master Meter and Su	pply Error Adjustments
WATER SUPPLIED				in column 'E' and 'J'	T ON.	Value:
	Volume from own sources: Water imported:	+ ? 9 + ? n/a	403.560	MG/Yr + 1		0.078 MG/Y     MG/Y
	Water exported:	+ ? n/a	0.000	MG/Yr + 3		MG/Yi MG/Yi MG/Yi
	WATER SUPPLIED:		403.482	MG/Yr	-	alue for over-registration
AUTHORIZED CONSUMPTION						Click here: ?
	Billed metered: Billed unmetered:	+ ? 9 + ? n/a	316.870	MG/Yr MG/Yr		for help using option buttons below
	Unbilled metered:	+ ? 10	7.690		Pcnt:	Value:
	Unbilled unmetered:	+ ? 5	1.009	MG/Yr		<b>1.009</b> MG/Y
	AUTHORIZED CONSUMPTION:	?	325.569	MG/Yr	Ī	Use buttons to select percentage of water
						supplied OR
WATER LOSSES (Water Supp	lied - Authorized Consumption)		77.913	MG/Yr		value
Apparent Losses			1 000		Pont:	▼ Value:
Default	Unauthorized consumption: option selected for unauthorized consu			MG/Yr but not displayed	0.25%	<u>M</u> G/Y
	Customer metering inaccuracies:	+ ? 9	11.145		3.32%	O MG/Y
Dofo	Systematic data handling errors: ult option selected for Systematic data			MG/Yr	0.25%	C MG/Y
Dela	Apparent Losses:	?	12.946		FU	
Real Losses (Current Annual I Real Losse	Real Losses or CARL) es = Water Losses - Apparent Losses:	?	64.967	MG/Yr		
	WATER LOSSES:		77.913	MG/Yr		
NON-REVENUE WATER				·		
	NON-REVENUE WATER:	?	86.612	MG/Yr		
= Water Losses + Unbilled Metered SYSTEM DATA	+ Unbilled Unmetered					
	Length of mains:	+ ? 9	351.5	miles		
Number of <u>a</u>	active AND inactive service connections: Service connection density:	+ ? 9	2,985	conn./mile main		
		1				
	located at the curbstop or property line? Average length of customer service line:	+ ?	Yes		ine, <u>beyond</u> the property ne responsibility of the utilit	V)
Average leng	th of customer service line has been se			of 10 has been applied		,
	Average operating pressure:	+ ? 5	74.5	psi		
COST DATA						
Tota	I annual cost of operating water system:	+ ? 10	\$3,241,740	\$/Year		
	I unit cost (applied to Apparent Losses): roduction cost (applied to Real Losses):	+ ? 10 + ? 7	2	\$/100 cubic feet (ccf) \$/Million gallons Use	Customer Retail Unit Cost to v	ratus vast lassas
Vallable p	Touccion cost (applied to real cosses).		\$005.00		Customer Retail onit Cost to V	alue real losses
WATER AUDIT DATA VALIDITY	SCORE:					
	***	YOUR SCO	RE IS: 86 out of 100 **	*		
Aw	veighted scale for the components of consump	otion and water	r loss is included in the ca	Iculation of the Water Audit D	Data Validity Score	
PRIORITY AREAS FOR ATTENT	ION:					
Based on the information provided	, audit accuracy can be improved by addressi	ng the following	g components:			
1: Volume from own sources						
2: Unauthorized consumption						
3: Systematic data handling en	rrors					

	AM		/ater Audit So ing Workshee				WAS v5.0 ater Works Association 4, All Rights Reserved
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	elow. Where available, metered values should a or 1-10) using the drop-down list to the left of	the input cell. Hov	er the mouse over the			ence in the accuracy of t	the input
To select th	e correct data grading for each input, dete	ermine the highe	st grade where the				
WATER SUPPLIED	utility meets or exceeds <u>all</u> criteria for	•	•	in column 'E' and 'J'		and Supply Error Adji Value:	ustments
	Volume from own sources:	8	2,127.780	MG/Yr + ?	4 0.00%	$\odot$ $\bigcirc$	MG/Yr
	Water imported:  Water exported:	+ ? n/a + ? n/a	0.000 0.000				MG/Yr MG/Yr
	WATER SUPPLIED:		2,127.780	MG/Yr	-	% or value for under % or value for over-r	-
AUTHORIZED CONSUMPTION	_					Click here:	?
	Billed metered:  Billed unmetered:	+ ? 8 + ? n/a	1,925.960 0.000			for help using o buttons below	option
	Unbilled metered:	? n/a	0.000	MG/Yr	Pcnt:	Value:	
Do	Unbilled unmetered:		26.597		1.25%		MG/Yr
	AUTHORIZED CONSUMPTION:	?	1,952.557			Use buttons to percentage of wate	
			175 000		-	value	
WATER LOSSES (Water Suppli	ed - Authorized Consumption)		175.223	MG/Yr	Pcnt:	▼ Value:	
Apparent Losses	Unauthorized consumption:	+ ?	5.319	MG/Yr	0.25%		MG/Yr
Default	option selected for unauthorized consu	mption - a grad	ling of 5 is applied	but not displayed			
	Customer metering inaccuracies:	? 3	0.000		0.25%		MG/Yr
Defa	Systematic data handling errors:  It option selected for Systematic data		4.815 - a grading of 5 is		0.25%		MG/Yr
	Apparent Losses:	?	10.134				
Real Losses (Current Annual R	eal Losses or CARL)	_					
Real Losses	s = Water Losses - Apparent Losses:	?	165.088	MG/Yr			
	WATER LOSSES:		175.223	MG/Yr			
NON-REVENUE WATER	NON-REVENUE WATER:	?	201.820	MG/Yr			
= Water Losses + Unbilled Metered + SYSTEM DATA							
	Length of mains:	- ? 3	119.6	miles			
Number of <u>a</u>	<u>stive AND inactive</u> service connections: Service connection density:	? 3	8,037 67	conn./mile main			
	ocated at the curbstop or property line?		Yes	(length of service line		perty boundary,	
	verage length of customer service line:  h of customer service line has been set		data grading score	that is the responsibi of 10 has been applied	lity of the utility)		
	Average operating pressure:	• ? 6	75.0	psi			
COST DATA	annual cost of operating water system:	+ 2 2	\$5,000,000	\$/Voor			
	unit cost (applied to Apparent Losses):			\$/Year \$/100 cubic feet (ccf)			
Variable pr	oduction cost (applied to Real Losses):	+ ? 9		\$/Million gallons 🛛 Use Cu	istomer Retail Unit (	Cost to value real losses	
WATER AUDIT DATA VALIDITY SO	CORE:						
			IS: 67 out of 100 ***	: :			
Δ.	weighted scale for the components of consump				a Validity Score		
PRIORITY AREAS FOR ATTENTIO	- · · ·						
	udit accuracy can be improved by addressing t	he following comp	onents:				
1: Volume from own sources							
2: Total annual cost of operating	g water system						
3: Customer metering inaccurat							

<b>*</b>	WWA Free Water Audit Software: <u>Reporting Worksheet</u>	WAS v5.0 American Water Works Association Copyright © 2014, All Rights Reserved
Click to access definition     Glick to add a comment     Click to add a comment	Coachella Water Authority           2016         1/2016 - 12/2016	
Please enter data in the white cells below. Where available, metered values shu data by grading each component (n/a or 1-10) using the drop-down list to the le All vol		
To select the correct data grading for each input,	letermine the highest grade where the	
utility meets or exceeds <u>all</u> criteria	for that grade and all grades below it. < Enter grading in column 'E' and 'J'>	Master Meter and Supply Error Adjustments Pcnt: Value:
Volume from own sources Water importer		4 0.00% O MG/Yr
Water imported Water exported		MG/Yr
WATER SUPPLIED	: <b>2,031.790</b> MG/Yr	Enter negative % or value for under-registration Enter positive % or value for over-registration
AUTHORIZED CONSUMPTION		Click here: ?
Billed metered Billed unmetered		for help using option buttons below
Unbilled mitterered		Pcnt: Value:
Unbilled unmetered	: + ? 5 5.079 MG/Yr	<u>○</u> <u>●</u> <u>5.079</u> MG/Yr
AUTHORIZED CONSUMPTION	: 1,998.199 MG/Yr	Use buttons to select percentage of water supplied <u>OR</u>
WATER LOSSES (Water Supplied - Authorized Consumption)	<b>33.591</b> MG/Yr	value
Apparent Losses		Pcnt: Value:
Unauthorized consumption	Sumption - a grading of 5 is applied but not displayed	0.25% • O MG/Yr
Customer metering inaccuracies		0.50% • O MG/Yr
Systematic data handling errors	+ ? 4.983 MG/Yr	0.25% • C MG/Yr
Apparent Losses	ta handling errors - a grading of 5 is applied but not displayed 20.078 MG/Yr	
<u>Real Losses (Current Annual Real Losses or CARL)</u> Real Losses = Water Losses - Apparent Losses	2 <b>13.513</b> MG/Yr	
WATER LOSSES		
NON-REVENUE WATER		
NON-REVENUE WATER	? 38.670 MG/Yr	
= Water Losses + Unbilled Metered + Unbilled Unmetered SYSTEM DATA		
Length of mains		
Number of <u>active AND inactive</u> service connections Service connection density		
Are customer meters typically located at the curbstop or property line		, <u>beyond</u> the property boundary,
<u>Average</u> length of customer service line Average length of customer service line has beer	that is the responsibilities to zero and a data grading score of 10 has been applied	ty of the utility)
Average operating pressure	: + ? 5 75.0 psi	
COST DATA		
Total annual cost of operating water system	+ ? 10 \$5,960,000 \$/Year	
Customer retail unit cost (applied to Apparent Losses	+ ? 5 \$1.50 \$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses	: + ? 1 \$300.00 \$/Million gallons Use Cus	stomer Retail Unit Cost to value real losses
WATER AUDIT DATA VALIDITY SCORE:		
	*** YOUR SCORE IS: 50 out of 100 ***	
A weighted scale for the components of cons	imption 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 address	ng the following components:	
1: Volume from own sources		
2: Variable production cost (applied to Real Losses)		
3: Customer metering inaccuracies	1	

	Free Water Audit S Reporting Workshee			WAS v5.0 r Works Association All Rights Reserved
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Please enter data in the white cells below. Where available, metered values should be used data by grading each component (n/a or 1-10) using the drop-down list to the left of the input All volumes to be		e cell to obtain a description of the gr		e input
To select the correct data grading for each input, determine				
utility meets or exceeds <u>all</u> criteria for that g	•	Ma in column 'E' and 'J'	aster Meter and Supply Error Adjus	tments
Volume from own sources: * ?	8 2,221.260		Pcnt: Value:	MG/Yr
Water imported: + ?	0.000	MG/Yr + ?	<u> </u>	MG/Yr
Water exported: + ?	0.000	MG/Yr + ?	ter negative % or value for under-r	MG/Yr egistration
WATER SUPPLIED:	2,221.260		ter positive % or value for over-reg	•
AUTHORIZED CONSUMPTION			Click here: ?	
Billed metered: + ? Billed unmetered: + ?	8 1,963.970	MG/Yr MG/Yr	for help using op buttons below	
Unbilled metered: + ?		MG/Yr	Pcnt: Value:	
Unbilled unmetered: + ?		MG/Yr	1.25% 💽 🔾	MG/Yr
Default option selected for Unbilled unmetered			Use buttons to s	elect
AUTHORIZED CONSUMPTION: ?	1,991.736	MG/Yr	percentage of water <u>OR</u>	supplied
WATER LOSSES (Water Supplied Authorized Consumption)	229.524	MON	value	
WATER LOSSES (Water Supplied - Authorized Consumption) Apparent Losses	229.524	MG/ fr	Pcnt: ▼ Value:	
Unauthorized consumption: + ?	5.553	MG/Yr	0.25% O	MG/Yr
Default option selected for unauthorized consumption	n - a grading of 5 is applied	l but not displayed		
Customer metering inaccuracies: + ?	0.000	MG/Yr		MG/Yr
Systematic data handling errors: + ? Default option selected for Systematic data handlin		MG/Yr	0.25% 🖲 🗋	MG/Yr
Apparent Losses: ?	10.463			
		•		
Real Losses (Current Annual Real Losses or CARL)	040.004			
Real Losses = Water Losses - Apparent Losses: ?	219.061			
WATER LOSSES:	229.524	MG/Yr		
NON-REVENUE WATER = Water Losses + Unbilled Metered + Unbilled Unmetered	257.290	MG/Yr		
SYSTEM DATA				
Length of mains: + ? Number of <u>active AND inactive</u> service connections: + ? Service connection density: ?	6 8,344	miles conn./mile main		
Are customer meters typically located at the curbstop or property line? <u>Average</u> length of customer service line: + ?	Yes	(iongai of bervice inte, be	yond the property boundary,	
Average length of customer service line has been set to zer	o and a data grading score	that is the responsibility o of 10 has been applied	i tile tulity)	
Average operating pressure: + ?	5 75.0	psi		
COST DATA				
Total annual cost of operating water system: + ?	7 \$6,650,000	\$/Year		
Customer retail unit cost (applied to Apparent Losses): + ?		\$/100 cubic feet (ccf)		
Variable production cost (applied to Real Losses): + ?	6	\$/Million gallons Use Custom	er Retail Unit Cost to value real losses	
WATER AUDIT DATA VALIDITY SCORE:				
	SCORE IS: 69 out of 100 **	*		
			idity Scoro	
A weighted scale for the components of consumption and	a water loss is included in the ca	iculation of the water Audit Data Val	iuity Score	
PRIORITY AREAS FOR ATTENTION:				
Based on the information provided, audit accuracy can be improved by addressing the follo	wing components:			
1: Volume from own sources				
2: Customer metering inaccuracies				
3: Customer retail unit cost (applied to Apparent Losses)				

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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: MILLION GALLONS (US) PER YEAR								
	ta grading for each input, dete							
WATER SUPPLIED	eets or exceeds <u>all</u> criteria for	•	•	in column 'E' and 'J'		d Supply Error Adjustm Value:	ents	
	Volume from own sources:	+ ? 5	2,324.669		3		MG/Yr	
	Water imported:  Water exported:	+ ? n/a + ? n/a		MG/Yr + ? MG/Yr + ?			MG/Yr MG/Yr	
	WATER SUPPLIED:		2,324.669	MG/Yr	•	6 or value for under-reg or value for over-regist		
			,		•	Click here: ?		
	Billed metered: Billed unmetered:	+ ? 5	2,240.846			for help using option buttons below	ı	
	Unbilled metered:	+ ? n/a + ? n/a		MG/Yr MG/Yr	Pcnt:	Value:		
	Unbilled unmetered:	+ ? 5	5.812	MG/Yr		5.812	MG/Yr	
AUTH	ORIZED CONSUMPTION:	?	2,246.657	MG/Yr		Use buttons to sele percentage of water su		
					_	OR value	phica	
WATER LOSSES (Water Supplied - Authori	zed Consumption)		78.012	MG/Yr				
Apparent Losses	Inauthorized consumption:	+ ?	5 812	MG/Yr	Pcnt:		MG/Yr	
	ted for unauthorized consu				0.2070	<u> </u>	MO/11	
	ner metering inaccuracies:		11.261				MG/Yr	
	matic data handling errors: <a>Iected for Systematic data</a>			MG/Yr applied but not displayed		• C	MG/Yr	
	Apparent Losses:	?	22.674					
Real Losses (Current Annual Real Losses								
	osses - Apparent Losses:	?	55.337	MG/Yr				
	WATER LOSSES:		78.012	MG/Yr				
NON-REVENUE WATER	NON-REVENUE WATER:	?	83.823	MG/Yr				
= Water Losses + Unbilled Metered + Unbilled Unm								
SYSTEM DATA								
Number of active AND ina	Length of mains:	+ ? 6 + ? 8	119.6 8,487	miles				
S	Service connection density:	?	71	conn./mile main				
Are customer meters typically located at the	curbstop or property line?	2	Yes	(iongui or service in	ne, <u>beyond</u> the proper	ty boundary,		
	er service line has been se		a data grading score	that is the responsit of 10 has been applied	bility of the utility)			
A	erage operating pressure:	+ ? 5	75.0	psi				
COST DATA								
Total annual cost	of operating water system:	+ ? 10	\$6,883,678	\$/Year				
	plied to Apparent Losses):			\$/100 cubic feet (ccf)				
variable production cos	t (applied to Real Losses).	+ ? 5	\$409.40	\$/Million gallons Use C	Customer Retail Unit Cos	t to value real losses		
WATER AUDIT DATA VALIDITY SCORE:								
	***	YOUR SCORE	E IS: 54 out of 100 ***	*				
A weighted scale	ofor the components of consump	otion and water lo	oss is included in the cal	Iculation of the Water Audit Da	ta Validity Score		_	
PRIORITY AREAS FOR ATTENTION:								
Based on the information provided, audit accuracy	can be improved by addressing	the following con	nponents:					
1: Volume from own sources								
2: Customer metering inaccuracies								
3: Billed metered								

In the number of the control field Particle Control Part Part Part Part Part Part Part Part	*			Water Audit Se rting Workshee			WAS American Water Work	S v5.0 s Association
All values to an extending of anoth maps, determines the highest graded, hereins         Matter sturp-LED       Yes         Yes <t< td=""><td>water Audit Report for</td><td></td><td>Wat</td><td></td><td>0007)</td><td></td><td></td><td></td></t<>	water Audit Report for		Wat		0007)			
To send the correct data grading for each nout, determine the highest grade where the ultity meter or scaced ag inclusion for the grade and a grade below it.       Master Moler and Supply Error Adjustments         WATER SUPPLED       Control of the grade and a grade below it.       Master Moler and Supply Error Adjustments         WATER SUPPLED       2,216,370       Mony       Enter grading in column 12° and 12°       Perc.       Value:       Water models         Water supple.       2,216,370       Mony       Enter grading in column 2° and 12°       Perc.       Value:       Water models         AUTHORIZED CONSUMPTION       Billed metered:       Image: Consumption in the stand in the	Please enter data in the white cells below. Where available, metered values s	hould be used;	; if m	etered values are unava	ilable please estimate a value	e. Indicate your confidence	in the accuracy of the	
The utily meters of society and refers for the grade and all grades below it.     Waters supplied     Year and Y					LONS (US) PER YEAR			_
Value from zer sources:       1       2.715.370       More         Water sported:       1       0.000       More       More         WATER SUPPLIED:       2.216.370       More       Effer register.       More         AUTHORIZED CONSUMPTION       Billed meters:       1       0.000       More       Effer register.       First register.         AUTHORIZED CONSUMPTION       Billed meters:       1       0.000       More       First register.       First register.         MUTHORIZED CONSUMPTION       Billed meters:       1       0.000       More       First register.       First register.         MUTHORIZED CONSUMPTION       Billed meters:       1       0.000       More       First register.       First registere.       First register.       First						Master Meter and Su	upply Error Adjustmer	its
Water imported       in       in<								-
WATER SUPPLIED:       2,216.370       Morry       Enter regative % or value for under-registration         AUTHORIZED CONSUMPTION       2,216.370       Morry       Did value for under-registration         Billed unmetered:       1       2,107.300       Morry       Did value for under-registration         WATER SUPPLIED:       2,107.300       Morry       Did value for under-registration       Did value for under-registration         Water Supplied - Authorized Consumption       2,133.471       Morry       Did value for under-registration       Did value for under-registration         WATER LOSSES (Water Supplied - Authorized Consumption)       82.899       Morry       Did value for under-registration       Did value       <				,	MG/Yr + ?	•		-
WATER SUPLIE:       2,215.370       Norv       Enter positive % or value for over-registration         AUTHORIZED CONSUMPTION       Billed metered:       1       2,127 500       MOVY         Billed metered:       1       2,027 500       MOVY       Citch their:	Water exported	1:+?n	n/a	0.000	MG/Yr + ?			
Billed metered:       0       0       0.000       MCVr       Tor beginsing option         Billed metered:       0       0.000       MCVr       Unlike         Unlike       0       0.000       MCVr       Unlike         MATER LOSSES (Water Supplied - Authorized Consumption)       82.899       MCVr       Unlike         MATER LOSSES (Water Supplied - Authorized consumption)       82.899       MCVr       Unlike         Mater Supplied - Authorized consumption       9       5.541       MCVr       Unlike         Default option selected for matering inaccuracies       9       5.541       MCVr       Unlike         Value:       Unlike       10665       MCVr       Unlike       MCVr       Unlike         Systematic data handing errors       9       5.320       MCVr       Unlike       MCVr         Systematic data handing errors       2       2.1559       MCVr       Unlike       MCVr       Unlike         Non-Revenue water       9       5.320       MCVr       Unlike       Unlike       Unlike       Unlike<	WATER SUPPLIED	):		2,216.370	MG/Yr			
Billed unmetered:       Image: Control of Marry Unitable Unmetered:       Image: Control of Marry Unitable Unmetered:         Marrier Losses:       Image: Control of Marry Unitable Unmetered:       Image: Control of Marry Unitable Unmetered:         Marrier Losses:       Image: Control of Marry Unitable Unmetered:       Image: Control of Marry Unitable Unmetered:         Marrier Losses:       Image: Control of Marry Unitable Unmetered:       Image: Control of Marry Unitable Unit Control Of Section Unitable Unitab		4 + 2	6	2 427 020	MON			
Unbilled unmetered:       Image: Construction for the standard	Billed unmetered	j: + ? n		,			for help using option	
AUTHORIZED CONSUMPTION:       9.1       2,133.471       MGYr       WATER LOSSES (Weier Supplied - Authorized Consumption)       92.899       MGYr         Abparent Losses       Unauthorized consumption:       9.3       5.56,99       MGYr       90.8         Abparent Losses       Unauthorized consumption:       9.3       5.66,99       MGYr       90.8         Abparent Losses       Unauthorized consumption:       9.3       5.66,99       MGYr       90.25%       90.2       MGYr         Default option selected for unauthorized consumption:       9.3       10.000,90       MGYr       90.25%       90.2       MGYr         Default option selected for systematic data handling errors:       9.1       10.000,90       MGYr       90.25%       MGYr       90.25%       MGYr         Default option selected for systematic data handling errors:       9.1.365       MGYr       90.25%       MGYr       90.25%       MGYr         Non-Revenue Water       Non-Revenue Water       Non-Revenue Water:       9.4.30%       MGYr       90.25%       MGYr         System correction data for unautified errors:       9.0       11.9.6       miss       9.2.25%       90.25%       MGYr         System correction data for unautified errors:       9.0       1.9.6       miss       9.2.2.5% </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>MC/Vr</td>								MC/Vr
AUTHORIZED CONSUMPTION:       Image: 2,133.471       MGVY       percentage of value subset         WATER LOSSES (Water Supplied - Authorized Consumption)       62.899       MGVY       Pont:       Value:       WGVY         Default option selected for unauthorized consumption - a grading of 15 applied but not displayed       0.505       0.055       0.005       0.0			<u> </u>	5.541		▲		IVIG/ TI
WATER LOSSES (Water Supplied - Authorized Consumption)       82.899       MGYr	AUTHORIZED CONSUMPTION	: ?		2,133.471	MG/Yr		percentage of water supplied	
Unauthorized consumption:       9.541       MGYr       D25%       MGYr         Default option selected for unauthorized consumption.       9.5       9.800       MGYr       0.50%       0.	WATER LOSSES (Water Supplied - Authorized Consumption)			82.899	MG/Yr			
Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed		. + ?	Г	E E 4 1	MONG			MON
Catatomer metering inaccuracies:       3       10.6953       MGYr         Systematic data handling errors:       10       5.300       MGYr         Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed       Apparent Losses:       21.554       MGYr         Beal Losses (Current Annual Real Losses or CARL)       Real Losses or CARL)       NGYr       MGYr         Non-REVENUE WATER       0       61.345       MGYr         NON-REVENUE WATER       0       61.345       MGYr         NON-REVENUE WATER       0       61.345       MGYr         * Vater Losses + Unbilled Metered + Unbilled Unmetered       32.559       MGYr         System DATA       Length of mains:       0       119.6       miles         Are customer meters typically located at the curbstop or property line?       Yes       (length of service line has been set to zoro and a data grading score of 10 has been applied         Average length of customer service line has been set to zoro and a data grading score of 10 has been applied       Average operating pressure:       0       5 5.50       pai         Customer meters typically located of the Real Losses;       0       5 5.00       pai       5 5.00       pai         Customer real unit cost of operating water system:       0       5 5.50       pai			a gr		L	0.25%	2	IVIG/ 11
Default option selected for Systematic data handling errors - a grading of 6 is applied but not displayed         Apparent Losses:       21,554       MGYr         Real Losses (Current Annual Real Losses - Apparent Losses:       61,345       MGYr         Non-REVENUE WATER       61,345       MGYr         NON-REVENUE WATER       88,440       MGYr         Valuer Losses + Urbilled Metered + Unbilled Unmetered       88,440       MGYr         System DATA       Length of mains:       0       119,6       miles         Number of active AND inactive service connections:       0       62,235       conn/mile main         Are customer meters typically located at the curbstop or property line?       Yes       (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 zoro and a data grading score of 10 has been asplied       Xerage (length of customer service line has been set to zoro and a data grading score of 10 cubic feet (ccf)         Cost DATA       10       5       55.0 psi         WATER AUDIT DATA VALIDITY SCORE:       5       5       5409.46       \$Miltion galtomer         Variable production cost (applied to Real Losses):       5       \$409.46       \$Miltion galtomer       Miltion galtomer         Variable production cost (applied to Real Losses):       5	Customer metering inaccuracies	s: + ?	3	10.693	MG/Yr	0.0070	$\square$	MG/Yr
Apparent Losses:       21,554       MGIYr         Real Losses (Current Annual Real Losses: - Apparent Losses:       2       61,345       MGIYr         Real Losses = Water Losses - Apparent Losses:       2       61,345       MGIYr         NON-REVENUE WATER       WATER LOSSES:       82,899       MGIYr         NON-REVENUE WATER       88,440       MGIYr         * Water Losses + Unbilled Unmatered       SYSTEM DATA       Ength of mains:       2       9       119,6       miles         SYSTEM DATA       Length of mains:       2       9       119,6       miles       32,35         Service connection density:       2       9       0       119,6       miles       32,35         Are customer meters typically located at the curbatiop or property line?       Yees       (length of service line, baroong the property boundary, Marcrage length of customer service line, base been set to zero and a data grading score of 10 has been applied       Average length of service line, baroong the set to zero and a data grading score of 10 has been applied         Customer retail unit cost (applied to Apparent Losses):       10       \$6,938,815       \$Year         Customer retail unit cost (applied to Apparent Losses):       10       \$6,938,816       \$900 cubic feet (ccf)         Customer retail unit cost (applied to Real Losses):       10       \$6,938,616 <td>, , ,</td> <td></td> <td></td> <td></td> <td>•</td> <td></td> <td></td> <td>MG/Yr</td>	, , ,				•			MG/Yr
Real Losses = Water Losses - Apparent Losses:		_	ent			ea		
Real Losses = Water Losses - Apparent Losses:       Image: Content of the content of t								
NON-REVENUE WATER       0         NON-REVENUE WATER       88.440         Mon-Revenue WATER       88.440         Water Losses + Unbilled Metered + Unbilled Unmetered       Length of mains         System DATA       Length of mains         Number of active AND inactive service connections       9         Service connection density       9         Are customer meters typically located at the curbatop or property line?       2         Average length of customer service line.       9         Cost DATA       10         Customer retail unit cost (applied to Apparent Losses):       9         Statis production cost (applied to Apparent Losses):       9         Statis Stream       51.05         Customer retail unit cost (applied to Real Losses):       9         Statis Statis       \$Verar         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:       8         Based on the information provided, audit accuracy can be improved by addres		: ?	ſ	61.345	MG/Yr			
NON-REVENUE WATER:       2       88.440       MG/Yr         = Water Losses + Unbilled Unmetered       Ength of mains:       2       9       119.6       miles         SYSTEM DATA       Length of mains:       2       9       119.6       miles         Number of active AND inactive service connections:       9       119.6       miles       8.235         Service connection density:       2       9       6.9       conn/mile main         Are customer meters typically located at the curbstop or property line?       Yes       (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 length of customer service line has been set to zero and a data grading score of 10 has been applied         Average length of customer service line has been set to zero and a data grading score of 10 has been applied       Average length of customer service line has been set to zero and a data grading score of 10 has been applied         COST DATA       Total annual cost of operating water system:       2       10       \$6.936.815       \$Year         Customer retail unit cost (applied to Apparent Losses):       2       5       \$4.09.46       \$Million gallons]       Use Customer retail Unit Cost to value real losses         WATER AUDIT DATA VALIDITY SCORE:       ** YOUR	WATER LOSSES	6:		82.899	MG/Yr			
Water Losses + Unbilled Metered + Unbilled Unmetered    SYSTEM DATA    Number of active AND inactive service connections:     Service connection density:     B    Are customer meters typically located at the curbstop or property line?     Average length of customer service line:     Average operating pressure:     Stick:     Stick:     Average operating water system:     Stick:      Stick:     Stick:     Cost DATA     Total annual cost of operating water system:     Stick:      Customer retail unit cost (applied to Apparent Losses):     Stick:      Watter Aubit DATA VALIDITY SCORE:     Watter Aubit DATA ValibitY Score:     Watter Aubit DATA Customer and water loss is included in the calculation of the Water Audit Data Validit		. ?		88,440	MG/Yr			_
Length of mains: 2 9 9 119.6 miles Number of <u>active AND inactive</u> service connections: 2 9 8 8.235 Service connection density: 2 69 conn./mile main Are customer meters typically located the curbsop or property line? Yes (length of service line, <u>beyond</u> the property boundary, <u>Average length of customer service line has been set to zero and a data grading score of 10 has been applied</u> Average length of customer service line has been set to zero and a data grading score of 10 has been applied Average operating pressure: 2 6 5 56.0 psi COST DATA Total annual cost of operating water system: 2 6 \$ 10 \$\$,936,815 \$/Year Customer retail unit cost (applied to Apparent Losses): 2 6 \$ \$10.65 \$/100 cubic feet (ccf) Variable production cost (applied to Real Losses): 2 6 \$ \$409.46 \$/Million gailons Use Customer Retail Unit Cost to value real losses WATER AUDIT DATA VALIDITY SCORE: PHORITY AREAS FOR ATTENTION: Based on the information provided, audit accuracy can be improved by addressing the following components: 1: Volume from own sources 2: Customer metering inaccuracies	= Water Losses + Unbilled Metered + Unbilled Unmetered				1			_
Number of active AND inactive service connections:       2       8       8,235         Service connection density:       2       69       conn/mile main         Are customer meters typically located at the curbstop or property line?       Yes       (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:       2       5       55.0       psi         COST DATA       Total annual cost of operating water system:       2       10       \$6,6,936,815       \$/Year       \$/Year         Customer retail unit cost (applied to Apparent Losses):       2       10       \$6,6,936,815       \$/Year         Customer retail unit cost (applied to Real Losses):       2       10       \$/s6,936,815       \$/Year         Customer retail unit cost (applied to Real Losses):       2       2       5       \$/s09.46       \$/Million gallons]       Use Customer Retail Unit Cost to value real losses         WATER AUDIT DATA VALIDITY SCORE:       *** YOUR SCORE IS: 54 out of 100 ***       Aveighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score         PRIORITY AREAS FOR ATTENTIONE       Based on the information provided, audit accuracy can be improved by addressing the following components: <t< td=""><td></td><td></td><td></td><td>140.0</td><td></td><td></td><td></td><td></td></t<>				140.0				
Average length of customer service line:       ??       ?       ************************************	Number of active AND inactive service connections	5: + ?		8,235				
Average length of customer service line:       Image length of	Are customer meters typically located at the curbstop or property line	?	Г	Yes	(length of service line	e, beyond the property bou	indary.	
Average operating pressure:           Average operating pressure: <ul> <li></li></ul>			and	a data grading score	that is the responsibi		······,,,,	
Total annual cost of operating water system:       10       \$6,936,815       \$/Year         Customer retail unit cost (applied to Apparent Losses):       1       5       \$1.65       \$/100 cubic feet (ccf)         Variable production cost (applied to Real Losses):       1       7       5       \$409.46       \$/Million gallons _ Use Customer Retail Unit Cost to value real losses         WATER AUDIT DATA VALIDITY SCORE:         *** YOUR SCORE IS: 54 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: Volume from own sources       1: Volume from own sources         2: Customer metering inaccuracies       2: Customer metering inaccuracies								
Total annual cost of operating water system:       10       \$6,936,815       \$/Year         Customer retail unit cost (applied to Apparent Losses):       1       5       \$1.65       \$/100 cubic feet (ccf)         Variable production cost (applied to Real Losses):       1       7       5       \$409.46       \$/Million gallons _ Use Customer Retail Unit Cost to value real losses         WATER AUDIT DATA VALIDITY SCORE:         *** YOUR SCORE IS: 54 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: Volume from own sources       1: Volume from own sources         2: Customer metering inaccuracies       2: Customer metering inaccuracies								-
Customer retail unit cost (applied to Apparent Losses): <b>1 2 1 5 1 1</b>		n: <mark>+ ?</mark> 1	10	\$6,936 815	\$/Year			
WATER AUDIT DATA VALIDITY SCORE:         *** YOUR SCORE IS: 54 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: Volume from own sources         2: Customer metering inaccuracies	Customer retail unit cost (applied to Apparent Losses	): + ?	5	\$1.65	\$/100 cubic feet (ccf)			
*** YOUR SCORE IS: 54 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:      Your sources      Customer metering inaccuracies	Variable production cost (applied to Real Losses	):	5	\$409.46	\$/Million gallons Use Custo	omer Retail Unit Cost to value	real losses	
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: Volume from own sources         2: Customer metering inaccuracies	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: Volume from own sources         2: Customer metering inaccuracies								
Based on the information provided, audit accuracy can be improved by addressing the following components:	<b>5</b>	umption and wa	ater I	loss is included in the ca	alculation of the Water Audit I	Data Validity Score		
1: Volume from own sources       2: Customer metering inaccuracies		eeing the follow	wine	componente:				
2: Customer metering inaccuracies		ssing the follo	wing	components:				
		1						
		1						

<b>`</b>	A		/ater Audit So ng Workshee		(	WAS v5.0 American Water Works Associatio Copyright © 2014, All Rights Reserve
<ul> <li>Click to access definition</li> <li>Click to add a comment</li> </ul>	Water Audit Report for: Reporting Year:		ency (3310005) 1/2015 - 12/2015			
	below. Where available, metered values sho ent (n/a or 1-10) using the drop-down list to t	he left of the input ce	II. Hover the mouse o	over the cell to obtain a descript		n the accuracy of the
	AI	volumes to be er	ntered () () CRE-F	EET PER YEAR		
To selec	t the correct data grading for each input the utility meets or exceeds <u>all</u> criteria for	determine the hig or that grade and a	hest grade where Il grades below it.		Master Meter and Sup	olv Error Adjustments
WATER SUPPLIED		-	-	n column 'E' and 'J'		Value:
	Volume from own sources:	+ ? 9		acre-ft/yr + ?		acre-ft/yr
	Water imported: Water exported:	+ ? n/a + ? n/a		acre-ft/yr + ? acre-ft/yr + ?		acre-ft/yr acre-ft/yr
			00 704 000		•	alue for under-registration
	WATER SUPPLIED:		29,731.000	acre-ft/yr	Enter positive % or va	lue for over-registration
AUTHORIZED CONSUMPTION	Billed metered:	+ ? 9	26,796.000	acre-ft/yr		Click here: ? for help using option
	Billed unmetered:	+ ? n/a		acre-ft/yr	I	buttons below
	Unbilled metered: Unbilled unmetered:	+ ? 9		acre-ft/yr	Pcnt:	Value:
De	fault option selected for Unbilled unn		371.638 g of 5 is applied b		1.25% <u>©</u>	) acre-ft/yr
	AUTHORIZED CONSUMPTION:	?	27,339.638			Use buttons to select percentage of water
						supplied
WATER LOSSES (Water Suppl	ied - Authorized Consumption)		2,391.363	acre-ft/yr	-	<u>OR</u> value
Apparent Losses	. ,				Pcnt:	Value:
	Unauthorized consumption:	+ ?	74.328	acre-ft/yr	0.25% 🖲 🕻	acre-ft/yr
Default	option selected for unauthorized cons		ing of 5 is applied	but not displayed		
	Customer metering inaccuracies: Systematic data handling errors:		1,419.368	acre-ft/yr acre-ft/yr	5.00% O C	
Defa	It option selected for Systematic data			•		
	Apparent Losses:	?	1,560.686	acre-ft/yr		
			tomer Retail Unit Cost to			
Real Losses (Current Annual F Real Losse	teal Losses or CARL) s = Water Losses - Apparent Losses:	2	830.677			
	WATER LOSSES:		2,391.363			
			2,001.000			
NON-REVENUE WATER	NON-REVENUE WATER:	?	2,935.000	acre-ft/yr		
= Water Losses + Unbilled Metered	+ Unbilled Unmetered		·			
SYSTEM DATA						
Number of a	Length of mains: ctive AND inactive service connections:	+ ? 9	392.0 22,073	miles		
	Service connection density:	?		conn./mile main		
Are customer meters typically I	ocated at the curbstop or property line?		Yes		have a day and the	
	<u>verage</u> length of customer service line:				responsibility of the utility	)
	h of customer service line has been s	et to zero and a d		boundary, that is the of 10 has been applied		)
		et to zero and a d	lata grading score 80.0	boundary, that is the of 10 has been applied		)
	h of customer service line has been s	et to zero and a d		boundary, that is the of 10 has been applied		)
Average lengt	h of customer service line has been s	et to zero and a d + ? 8		boundary, that is the of 10 has been applied psi		)
Average lengt COST DATA Total Customer retail	h of customer service line has been s Average operating pressure: annual cost of operating water system: unit cost (applied to Apparent Losses):	+ ? 9 + ? 9	80.0 \$25,084,704 \$2.50	boundary, that is the of 10 has been applied psi \$/Year \$/100 cubic feet (ccf)		)
Average lengt COST DATA Total Customer retail	h of customer service line has been s Average operating pressure: annual cost of operating water system:	+ ? 9 + ? 9	80.0 \$25,084,704	boundary, that is the of 10 has been applied psi \$/Year \$/100 cubic feet (ccf)		)
Average lengt COST DATA Total Customer retail	h of customer service line has been s Average operating pressure: annual cost of operating water system: unit cost (applied to Apparent Losses): oduction cost (applied to Real Losses):	+ ? 9 + ? 9	80.0 \$25,084,704 \$2.50	boundary, that is the of 10 has been applied psi \$/Year \$/100 cubic feet (ccf)		
Average lengt COST DATA Total Customer retail Variable pr	h of customer service line has been s Average operating pressure: annual cost of operating water system: unit cost (applied to Apparent Losses): oduction cost (applied to Real Losses): SCORE:	+ ? 9 + ? 9 + ? 9 + ? 9	\$25,084,704 \$2.50 \$814.57	boundary, that is the of 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/acre-ft		
Average lengt	h of customer service line has been s Average operating pressure: annual cost of operating water system: unit cost (applied to Apparent Losses): oduction cost (applied to Real Losses): SCORE:	+       ?       8         +       ?       8         +       ?       9         +       ?       9         +       ?       9         +       ?       9         +       ?       9	\$25,084,704 \$2.50 \$814.57 S: 84 out of 100 ***	boundary, that is the of 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/acre-ft	responsibility of the utility	
Average lengt COST DATA Total Customer retail Variable pr WATER AUDIT DATA VALIDITY S	h of customer service line has been s Average operating pressure: annual cost of operating water system: unit cost (applied to Apparent Losses): oduction cost (applied to Real Losses): SCORE:	+       ?       8         +       ?       8         +       ?       9         +       ?       9         +       ?       9         +       ?       9         +       ?       9	\$25,084,704 \$2.50 \$814.57 S: 84 out of 100 ***	boundary, that is the of 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/acre-ft	responsibility of the utility	
Average lengt COST DATA Total Customer retail Variable pr WATER AUDIT DATA VALIDITY S A w PRIORITY AREAS FOR ATTENTI	h of customer service line has been s Average operating pressure: annual cost of operating water system: unit cost (applied to Apparent Losses): oduction cost (applied to Real Losses): SCORE: ** eighted scale for the components of consum ON:	+ ? 8 + ? 9 + ? 9 + ? 9 + ? 9 + ? 9 + ? 9	\$25,084,704 \$2.50 \$814.57 <b>S: 84 out of 100 ***</b> is included in the cal	boundary, that is the of 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/acre-ft	responsibility of the utility	
Average lengt COST DATA Total Customer retail Variable pr WATER AUDIT DATA VALIDITY S WATER AUDIT DATA VALIDITY S A w PRIORITY AREAS FOR ATTENTI Based on the information provided,	h of customer service line has been s Average operating pressure: annual cost of operating water system: unit cost (applied to Apparent Losses): oduction cost (applied to Real Losses): SCORE:	+ ? 8 + ? 9 + ? 9 + ? 9 + ? 9 + ? 9 + ? 9	\$25,084,704 \$2.50 \$814.57 <b>S: 84 out of 100 ***</b> is included in the cal	boundary, that is the of 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/acre-ft	responsibility of the utility	
Average lengt COST DATA Total Customer retail Variable pr WATER AUDIT DATA VALIDITY S MATER AUDIT DATA VALIDITY S A w PRIORITY AREAS FOR ATTENTI Based on the information provided, 1: Volume from own sources	h of customer service line has been s Average operating pressure: annual cost of operating water system: unit cost (applied to Apparent Losses): oduction cost (applied to Real Losses): SCORE: ** eighted scale for the components of consum ON:	+ ? 8 + ? 9 + ? 9 + ? 9 + ? 9 + ? 9 + ? 9	\$25,084,704 \$2.50 \$814.57 <b>S: 84 out of 100 ***</b> is included in the cal	boundary, that is the of 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/acre-ft	responsibility of the utility	
Average lengt COST DATA Total Customer retail Variable pr WATER AUDIT DATA VALIDITY S WATER AUDIT DATA VALIDITY S A w PRIORITY AREAS FOR ATTENTI Based on the information provided,	h of customer service line has been s Average operating pressure: annual cost of operating water system: unit cost (applied to Apparent Losses): oduction cost (applied to Real Losses): SCORE: ** eighted scale for the components of consur ON: audit accuracy can be improved by address	+ ? 8 + ? 9 + ? 9 + ? 9 + ? 9 + ? 9 + ? 9	\$25,084,704 \$2.50 \$814.57 <b>S: 84 out of 100 ***</b> is included in the cal	boundary, that is the of 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/acre-ft	responsibility of the utility	

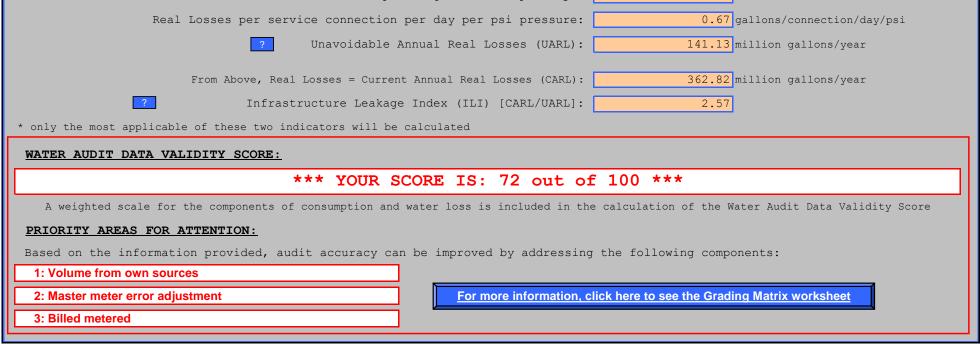
	ree Water Audit So porting Workshee		WAS v5.0 American Water Works Association Copyright © 2014, All Rights Reserved
?       Click to access definition         +       Click to add a comment         Water Audit Report for:       Desert Water Audit Report for:         Particular Structure       Reporting Year:         2016	ater Agency (3310005) 1/2016 - 12/2016	]	
Please enter data in the white cells below. Where available, metered values should be used input data by grading each component (n/a or 1-10) using the drop-down list to the left of the		over the cell to obtain a descript	
To select the correct data grading for each input, determine	the highest grade where		
the utility meets or exceeds <u>all</u> criteria for that grad	de and all grades below it.		Master Meter and Supply Error Adjustments
WATER SUPPLIED		in column 'E' and 'J'>	
	5 29,931.033 n/a 0.000	acre-ft/yr + ? acre-ft/yr + ?	3 acre-ft/yr acre-ft/yr
Water exported: + ?	n/a 0.000	acre-ft/yr + ?	acre-ft/yr
WATER SUPPLIED:	29,931.033	acre-ft/vr	Enter negative % or value for under-registration Enter positive % or value for over-registration
AUTHORIZED CONSUMPTION			
Billed metered: + ?	6 27,386.910	acre-ft/yr	for help using option
	n/a 0.000	acre-ft/yr	buttons below
	3 186.030 5 74.828	acre-ft/yr acre-ft/yr	Pcnt: Value:
AUTHORIZED CONSUMPTION: ?	27,647.768	acre-ft/yr	Use buttons to select percentage of water supplied <u>OR</u> value
WATER LOSSES (Water Supplied - Authorized Consumption)	2,283.265	acre-ft/yr	
Apparent Losses			Pcnt: Value:
Unauthorized consumption: 📫 ?		acre-ft/yr	0.25% O acre-ft/yr
Default option selected for unauthorized consumption			
Customer metering inaccuracies: + ? Systematic data handling errors: + ?	4 278.515 68.467	acre-ft/yr acre-ft/yr	1.00% O acre-ft/yr 0.25% O C acre-ft/yr
Default option selected for Systematic data handling		•	
Apparent Losses:	421.809	acre-ft/yr	
Poal Lossos (Current Annual Poal Lossos or CAPL)	Use Customer Retail Unit Cost t	0	
Real Losses (Current Annual Real Losses or CARL)           Real Losses = Water Losses - Apparent Losses:         ?	Use Customer Retail Unit Cost t		
		acre-ft/yr	
Real Losses = Water Losses - Apparent Losses:         ?	1,861.456	acre-ft/yr acre-ft/yr	
Real Losses - Mater Losses of CARLY         Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:       ?         WATER LOSSES:         NON-REVENUE WATER       ?         = Water Losses + Unbilled Metered + Unbilled Unmetered	1,861.456 2,283.265	acre-ft/yr acre-ft/yr	
Real Losses - Mater Losses of CARLI         Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER         E Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA	1,861.456 2,283.265 2,544.123	acre-ft/yr acre-ft/yr acre-ft/yr	
Real Losses - Mater Losses of CARLI         Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER:         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?	1,861.456           2,283.265           2,544.123           7         411.9           6         22,073	acre-ft/yr acre-ft/yr	
Real Losses - Water Losses of CARLT         Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Service connection density: ?	1,861.456           2,283.265           2,544.123           7         411.9           6         22,073           54	acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main	
Real Losses - Water Losses - Apparent Losses:         WATER LOSSES:         WATER LOSSES:         NON-REVENUE WATER:         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Service connection density:         ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line: + ?	1,861.456           2,283.265           2,544.123           7         411.9           6         22,073           54         Yes	acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main (length of service line that is the responsibili	. <u>beyond</u> the property boundary, ty of the utility)
Real Losses - Water Losses of CARLY         Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Service connection density: ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line: + ?         Average length of customer service line has been set to zero	1,861.456           2,283.265           2,544.123           7           411.9           6           22,073           54           Yes           and a data grading score	acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main (length of service line that is the responsibili	
Real Losses - Water Losses of CARLY         Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Service connection density: ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line: + ?         Average length of customer service line has been set to zero	1,861.456           2,283.265           2,544.123           7         411.9           6         22,073           54         Yes	acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main (length of service line that is the responsibili	
Real Losses - Water Losses of CARLY         Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Service connection density: ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line: + ?         Average length of customer service line has been set to zero	1,861.456           2,283.265           2,544.123           7           411.9           6           22,073           54           Yes           and a data grading score	acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main (length of service line that is the responsibili	
Real Losses - Water Losses - Apparent Losses:         WATER LOSSES:         WATER LOSSES:         NON-REVENUE WATER:         e Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Service connection density: ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set to zero         Average operating pressure: + ?         COST DATA	1,861.456           2,283.265           2,544.123           7           411.9           6           22,073           54           Yes           and a data grading score	acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main (length of service line that is the responsibili of 10 has been applied psi	
Real Losses - Water Losses - Apparent Losses:         WATER LOSSES:         WATER LOSSES:         NON-REVENUE WATER:         e Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Number of active AND inactive service connection density:         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average operating pressure: + ?         COST DATA         Total annual cost of operating water system: + ?         Customer retail unit cost (applied to Apparent Losses): + ?	1,861.456           2,283.265           2,544.123           7         411.9           6         22,073           54         Yes           and a data grading score         80.0           10         \$25,558,688         \$1.58	acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main (length of service line that is the responsibili of 10 has been applied psi \$/Year \$/100 cubic feet (ccf)	
Real Losses - Water Losses - Apparent Losses:         WATER LOSSES:         WATER LOSSES:         NON-REVENUE WATER:         e Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: * ?         Number of active AND inactive service connections: * ?         Number of active AND inactive service connection density:         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average operating pressure: * ?         COST DATA         Total annual cost of operating water system: * ?         Customer retail unit cost (applied to Apparent Losses): * ?	1,861.456         2,283.265         2,544.123         7       411.9         6       22,073         54         Yes         and a data grading score         2       80.0         10       \$25,558,688	acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main (length of service line that is the responsibili of 10 has been applied psi \$/Year \$/100 cubic feet (ccf)	
Real Losses - Water Losses of CARLY         Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Number of active AND inactive service connection density: ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average operating pressure: + ?         COST DATA         Total annual cost of operating water system: + ?         Customer retail unit cost (applied to Apparent Losses): + ?	1,861.456           2,283.265           2,544.123           7         411.9           6         22,073           54         Yes           and a data grading score         80.0           10         \$25,558,688         \$1.58	acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main (length of service line that is the responsibili of 10 has been applied psi \$/Year \$/100 cubic feet (ccf)	
Real Losses - Water Losses - Apparent Losses:         WATER LOSSES:         WATER LOSSES:         NON-REVENUE WATER:         = Water Losses + Unbilled Metered + Unbilled Unmetered         System DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Service connection density:         ?         Average length of customer service line: + ?         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average l	1,861.456           2,283.265           2,544.123           7         411.9           6         22,073           54         Yes           and a data grading score         80.0           10         \$25,558,688         \$1.58	acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main (length of service line that is the responsibili of 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/acre-ft	
Real Losses - Water Losses - Apparent Losses:         WATER LOSSES:         WATER LOSSES:         NON-REVENUE WATER:         = Water Losses + Unbilled Metered + Unbilled Unmetered         System DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Service connection density:         ?         Average length of customer service line: + ?         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average l	1,861.456         2,283.265         2,544.123         7       411.9         6       22,073         54       54         Yes       54         and a data grading score       80.0         10       \$25,558,688         9       \$1.58         7       \$216.92         CORE IS: 58 out of 100 ***	acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main (length of service line that is the responsibili that is the responsibili sof 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/acre-ft	ty of the utility)
Real Losses - Water Losses - Apparent Losses:         WATER LOSSES:         WATER LOSSES:         NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         System DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Number of active AND inactive service connections: + ?         Number of active AND inactive service connections: + ?         Number of active AND inactive service connection density: ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line: + ?         Average length of customer service line: + ?         Average length of customer service line: + ?         COST DATA         Total annual cost of operating water system: + ?         Customer retail unit cost (applied to Apparent Losses): + ?         Variable production cost (applied to Real Losses): + ?         WATER AUDIT DATA VALIDITY SCORE:	1,861.456         2,283.265         2,544.123         7       411.9         6       22,073         54       54         Yes       54         and a data grading score       80.0         10       \$25,558,688         9       \$1.58         7       \$216.92         CORE IS: 58 out of 100 ***	acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main (length of service line that is the responsibili that is the responsibili sof 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/acre-ft	ty of the utility)
Real Losses - Water Losses - Apparent Losses:         Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER:         = Water Losses + Unbilled Metered + Unbilled Unmetered         System DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Number of active AND inactive service connections: + ?         Number of active AND inactive service connections: + ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Variable production cost (applied to Apparent Losses): + ?         Variable production cost (applied to Real Losses): + ?         <	1,861.456         2,283.265         2,544.123         7       411.9         6       22,073         54       Yes         Add a data grading score         2       80.0         10       \$25,558,688         9       \$1.58         7       \$216.92         CORE IS: 58 out of 100 ***         vater loss is included in the ca	acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main (length of service line that is the responsibili that is the responsibili sof 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/acre-ft	ty of the utility)
Real Losses - Water Losses - Apparent Losses:         WATER LOSSES:         WATER LOSSES:         NON-REVENUE WATER:         = Water Losses + Unbilled Metered + Unbilled Unmetered         System DATA         Length of mains: * ?         Number of active AND inactive service connections: * ?         Number of active AND inactive service connections: * ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Variable production cost (applied to Apparent Losses): * ?         Varia	1,861.456         2,283.265         2,544.123         7       411.9         6       22,073         54       Yes         Add a data grading score         2       80.0         10       \$25,558,688         9       \$1.58         7       \$216.92         CORE IS: 58 out of 100 ***         vater loss is included in the ca	acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main (length of service line that is the responsibili that is the responsibili sof 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/acre-ft	ty of the utility)
Real Losses - Water Losses - Apparent Losses:         Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         MON-REVENUE WATER:         = Water Losses + Unbilled Metered + Unbilled Unmetered         System DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Number of active AND inactive service connections: + ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Variable production cost (applied to Apparent Losses): + ?         Variable production cost (applied to Real Losses): + ?	1,861.456         2,283.265         2,544.123         7       411.9         6       22,073         54       Yes         Add a data grading score         2       80.0         10       \$25,558,688         9       \$1.58         7       \$216.92         CORE IS: 58 out of 100 ***         vater loss is included in the ca	acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main (length of service line that is the responsibili that is the responsibili sof 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/acre-ft	ty of the utility)
Real Losses - Water Losses - Apparent Losses:         WATER LOSSES:         WATER LOSSES:         NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         System DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Number of active AND inactive service connection density: ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line: + ?         COST DATA         Total annual cost of operating water system: + ?         Customer retail unit cost (applied to Apparent Losses): + ?         Variable production cost (applied to Real Losses): + ?         WATER AUDIT DATA VALIDITY SCORE:         *** YOUR S         A weighted scale for the components of consumption and w         PRIORITY AREAS FOR ATTENTION:         Based on the information provided, audit accuracy can be improved by addressing the follo         1:	1,861.456         2,283.265         2,544.123         7       411.9         6       22,073         54       Yes         Add a data grading score         2       80.0         10       \$25,558,688         9       \$1.58         7       \$216.92         CORE IS: 58 out of 100 ***         vater loss is included in the ca	acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main (length of service line that is the responsibili that is the responsibili sof 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/acre-ft	ty of the utility)

	ree Water Audit Software: eporting Worksheet	WAS v5.0 American Water Works Association Copyright © 2014, All Rights Reserved
?       Click to access definition         *       Click to add a comment         Reporting Year:       2017	ater Agency (3310005) 1/2017 - 12/2017	
Please enter data in the white cells below. Where available, metered values should be used input data by grading each component (n/a or 1-10) using the drop-down list to the left of th All volumes		
To select the correct data grading for each input, determin	e the highest grade where	
the utility meets or exceeds <u>all</u> criteria for that gra WATER SUPPLIED	de and all grades below it. < Enter grading in column 'E' and 'J'	Master Meter and Supply Error Adjustments
Volume from own sources: + ?	5 32,712.023 acre-ft/yr + n/a acre-ft/yr +	?         3         -0.54%         acre-ft/yr           ?          acre-ft/yr         acre-ft/yr
	n/a acre-ft/yr +	? acre-ft/yr
WATER SUPPLIED:	32,888.635 acre-ft/yr	Enter negative % or value for under-registration Enter positive % or value for over-registration
	· · · · · · · · · · · · · · · · · · ·	Click here: ?
Billed metered: * ? Billed unmetered: * ?	6 28,931.285 acre-ft/yr acre-ft/yr	for help using option buttons below
Unbilled metered: + ? Unbilled unmetered: + ?	3 343.128 acre-ft/yr	Pcnt: Value:
Unbilied unmetered:	8 110.902 acre-ft/yr	
AUTHORIZED CONSUMPTION: ?	29,385.315 acre-ft/yr	Use buttons to select percentage of water supplied OR value
WATER LOSSES (Water Supplied - Authorized Consumption)	3,503.320 acre-ft/yr	
Apparent Losses Unauthorized consumption: + ?	82.222 acre-ft/yr	Pcnt: Value:
Default option selected for unauthorized consumption		
Customer metering inaccuracies: + ? Systematic data handling errors: + ?	4 295.701 acre-ft/yr 72.328 acre-ft/yr	1.00% O acre-ft/yr 0.25% O c acre-ft/yr
Default option selected for Systematic data handling		
Apparent Losses: ?	450.251 acre-ft/yr	
Real Losses (Current Annual Real Losses or CARL)	Use Customer Retail Unit Cost to	
Real Losses - Apparent Losses: ?	3,053.069 acre-ft/yr	
Real Losses Content Annual Real Losses of CARLy           Real Losses = Water Losses - Apparent Losses:           ?           WATER LOSSES:		
Real Losses - Apparent Losses: ?	3,053.069 acre-ft/yr	
Real Losses (Current Annuar Real Losses of CARL)         Real Losses - Apparent Losses:         WATER LOSSES:         WATER LOSSES:         NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered	3,053.069 acre-ft/yr 3,503.320 acre-ft/yr	
Real Losses of CARLy         Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?	3,053.069         acre-ft/yr           3,503.320         acre-ft/yr           3,957.350         acre-ft/yr           7         414.1           6         25,807	
Real Losses (Current Annual Real Losses of CARL)         Real Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER         e Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains:         • ?         Number of active AND inactive service connection density:         Service connection density:	3,053.069         acre-ft/yr           3,503.320         acre-ft/yr           3,957.350         acre-ft/yr           7         414.1           6         25,807           62         conn./mile main	
Real Losses - Water Losses of CARLY         Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         System DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Service connection density: ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line: + ?	3,053.069         acre-ft/yr           3,503.320         acre-ft/yr           3,957.350         acre-ft/yr           7         414.1           6         25,807           62         conn./mile main           Yes         (length of servic) that is the respondent is the respon	e line, <u>beyond</u> the property boundary, nsibility of the utility)
Real Losses (Current Annual Real Losses of CARL)         Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER         e Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Service connection density: ?         Are customer meters typically located at the curbstop or property line?	3,053.069         acre-ft/yr           3,503.320         acre-ft/yr           3,957.350         acre-ft/yr           7         414.1           6         25,807           62         conn./mile main           Yes         (length of servic) that is the respondent is the respon	nsibility of the utility)
Real Losses (Current Annual Real Losses of CARL)         Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         MON-REVENUE WATER         e Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Service connection density: ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line: + ?         Average length of customer service line has been set to zervice	3,053.069       acre-ft/yr         3,503.320       acre-ft/yr         3,957.350       acre-ft/yr         7       414.1         6       25,807         62       conn./mile main         Yes       (length of servicithat is the respondent of the respondent of the service of 10 has been applie	nsibility of the utility)
Real Losses (Current Annual Real Losses - Apparent Losses:         Real Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER         e Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Number of active AND inactive service connections: + ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line: + ?         Average length of customer service line: + ?         Average length of customer service line has been set to zero         Average operating pressure: + ?         COST DATA	3,053.069       acre-ft/yr         3,503.320       acre-ft/yr         3,957.350       acre-ft/yr         7       414.1         6       25,807         62       conn./mile main         Yes       (length of service that is the respondence)         9       and a data grading score of 10 has been applie         3       80.0	nsibility of the utility)
Real Losses (Current Annual Real Losses of CARL)         Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER         e Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Number of active AND inactive service connection density: ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line ine: + ?         Average length of customer service line ine as been set to zero         Average operating pressure: + ?	3,053.069       acre-ft/yr         3,503.320       acre-ft/yr         3,957.350       acre-ft/yr         7       414.1         6       25,807         62       conn./mile main         Yes       (length of servicithat is the respondent of the respondent of the service of 10 has been applie	nsibility of the utility)
Real Losses (Current Annual Real Losses - Apparent Losses:         Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER         e Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Number of active AND inactive service connection density: ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line : + ?         Average length of customer service line has been set to zero:         Average length of customer service line has been set to zero:         Average length of customer service line has been set to zero:         Average operating pressure: + ?         COST DATA         Total annual cost of operating water system: + ?	3,053.069       acre-ft/yr         3,503.320       acre-ft/yr         3,957.350       acre-ft/yr         7       414.1         6       25,807         62       conn./mile main         Yes       (length of service that is the respondence)         9       and a data grading score of 10 has been applie         3       80.0         10       \$25,428,532	nsibility of the utility)
Real Losses (current Annual Real Losses of CARL)         Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER         e Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Number of active AND inactive service connections: + ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average operating pressure: + ?         Cost DATA         Total annual cost of operating water system: + ?         Customer retail unit cost (applied to Apparent Losses): + ?	3,053.069         acre-ft/yr           3,503.320         acre-ft/yr           3,957.350         acre-ft/yr           7         414.1         miles           6         25,807         conn./mile main           Yes         (length of service that is the respondent of the resp	nsibility of the utility)
Real Losses (Current Annual Real Losses - Apparent Losses:         Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         MON-REVENUE WATER         e Water Losses + Unbilled Metered + Unbilled Unmetered         System DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Number of active AND inactive service connections: + ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero	3,053.069         acre-ft/yr           3,503.320         acre-ft/yr           3,957.350         acre-ft/yr           7         414.1         miles           6         25,807         conn./mile main           Yes         (length of service that is the respondent of the resp	nsibility of the utility)
Real Losses (Current Annual Real Losses - Apparent Losses:         Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         MON-REVENUE WATER         e Water Losses + Unbilled Metered + Unbilled Unmetered         System DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Number of active AND inactive service connections: + ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero	3,053.069       acre-ft/yr         3,503.320       acre-ft/yr         3,957.350       acre-ft/yr         3,957.350       acre-ft/yr         7       414.1         8       25,807         62       conn./mile main         Yes       (length of servic) that is the respondence of 10 has been applied app	nsibility of the utility)
Real Losses (Current Paintida Real Losses - Apparent Losses:         Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         MON-REVENUE WATER         e Water Losses + Unbilled Metered + Unbilled Unmetered         System DATA         Length of mains: + ??         Number of active AND inactive service connections: + ??         Number of active AND inactive service connections: + ??         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average operating pressure: + ?         COST DATA         Total annual cost of operating water system: + ?         Customer retail unit cost (applied to Apparent Losses): + ?         Variable production cost (applied to Real Losses): + ?         WATER AUDIT DATA VALIDITY SCORE:         #** YOUR S         A weighted scale for the components of consumption and the PRIORITY AREAS FOR ATTENTION:	3,053.069       acre-ft/yr         3,503.320       acre-ft/yr         3,957.350       acre-ft/yr         7       414.1         6       25,807         62       conn./mile main         Yes       (length of service that is the respondence)         0       414.1         8       25,807         62       conn./mile main         Yes       (length of service that is the respondence)         0       444.25,428,532         9       \$1.67         \$/100 cubic feet (ccf)         7       \$235.19         \$/acre-ft         SCORE IS: 58 out of 100 ***         water loss is included in the calculation of the Water Audition	nsibility of the utility)
Real Losses (Current Painting Real Losses - Apparent Losses:         Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         MON-REVENUE WATER         e Water Losses + Unbilled Metered + Unbilled Unmetered         System DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Number of active AND inactive service connections: + ?         Number of active AND inactive service connections: + ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average operating pressure: + ?         COST DATA         Total annual cost of operating water system: + ?         Customer retail unit cost (applied to Apparent Losses): + ?         Variable production cost (applied to Real Losses): + ?         Variable production cost (applied to Real Losses): + ?         Variable production cost (applied to Real Losses): + ?         A weighted scale for the components of consumption and the prior	3,053.069       acre-ft/yr         3,503.320       acre-ft/yr         3,957.350       acre-ft/yr         7       414.1         6       25,807         62       conn./mile main         Yes       (length of service that is the respondence)         0       414.1         8       25,807         62       conn./mile main         Yes       (length of service that is the respondence)         0       444.25,428,532         9       \$1.67         \$/100 cubic feet (ccf)         7       \$235.19         \$/acre-ft         SCORE IS: 58 out of 100 ***         water loss is included in the calculation of the Water Audition	nsibility of the utility)
Real Losses (Current Animular Real Losses - Apparent Losses:         Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER         e Water Losses + Unbilled Metered + Unbilled Unmetered         System DATA         Length of mains: + ? ?         Number of active AND inactive service connections: + ? ?         Number of active AND inactive service connections: + ? ?         Number of active AND inactive service connections: + ? ?         Number of active AND inactive service connections: + ? ?         Number of active AND inactive service connections: + ? ?         Average length of customer service line: + ? ?         Average length of customer service line: + ? ?         Average length of customer service line: + ? ?         COST DATA         Total annual cost of operating water system: + ? ?         Customer retail unit cost (applied to Apparent Losses): + ? ?         Variable production cost (applied to Real Losses): + ? ?         Variable production cost (applied to Real Losses): + ? ?         MATER AUDIT DATA VALIDITY SCORE:         *** YOUR S         A weighted scale for the components of consumption and	3,053.069       acre-ft/yr         3,503.320       acre-ft/yr         3,957.350       acre-ft/yr         7       414.1         6       25,807         62       conn./mile main         Yes       (length of service that is the respondence)         0       414.1         8       25,807         62       conn./mile main         Yes       (length of service that is the respondence)         0       444.25,428,532         9       \$1.67         \$/100 cubic feet (ccf)         7       \$235.19         \$/acre-ft         SCORE IS: 58 out of 100 ***         water loss is included in the calculation of the Water Audition	nsibility of the utility)
Real Losses (Current Painting Real Losses - Apparent Losses:         Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         MON-REVENUE WATER         e Water Losses + Unbilled Metered + Unbilled Unmetered         System DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Number of active AND inactive service connections: + ?         Number of active AND inactive service connections: + ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average operating pressure: + ?         COST DATA         Total annual cost of operating water system: + ?         Customer retail unit cost (applied to Apparent Losses): + ?         Variable production cost (applied to Real Losses): + ?         Variable production cost (applied to Real Losses): + ?         Variable production cost (applied to Real Losses): + ?         A weighted scale for the components of consumption and the prior	3,053.069       acre-ft/yr         3,503.320       acre-ft/yr         3,957.350       acre-ft/yr         7       414.1         6       25,807         62       conn./mile main         Yes       (length of service that is the respondence)         0       414.1         8       25,807         62       conn./mile main         Yes       (length of service that is the respondence)         0       444.25,428,532         9       \$1.67         \$/100 cubic feet (ccf)         7       \$235.19         \$/acre-ft         SCORE IS: 58 out of 100 ***         water loss is included in the calculation of the Water Audition	nsibility of the utility)

	ree Water Audit S		WAS v5.0 American Water Works Association Copyright © 2014, All Rights Reserved	
?       Click to access definition         +       Click to add a comment         Click to add a comment       Reporting Year: 2018	ater Agency (3310005) 1/2018 - 12/2018			
Please enter data in the white cells below. Where available, metered values should be used input data by grading each component (n/a or 1-10) using the drop-down list to the left of the	e input cell. Hover the mouse	over the cell to obtain a descript		
All volumes To select the correct data grading for each input, determin	to be entered CCRE-	FEET PER YEAR		
the utility meets or exceeds <u>all</u> criteria for that grad	de and all grades below it.		Master Meter and Supply Error Adjustments	
WATER SUPPLIED		in column 'E' and 'J'		
Volume from own sources: + ? Water imported: + ?	5 33,141.858 n/a 0.000	acre-ft/yr + ? acre-ft/yr + ?	3 -0.34% acre-ft/yr acre-ft/yr acre-ft/yr	
Water exported: + ?	n/a 0.000		acre-ft/yr	
WATER SUPPLIED:	33,253.590	acre-ft/yr	Enter negative % or value for under-registration Enter positive % or value for over-registration	
		· · ·	Click here: ?	
Billed metered: + ?	7 30,042.202	-	for help using option buttons below	
Billed unmetered: + ? Unbilled metered: + ?	n/a 0.000 3 437.579	-	Pcnt: Value:	
		acre-ft/yr	57.393 acre-ft/yr	
AUTHORIZED CONSUMPTION: ?	30,537.174	acre-ft/yr	Use buttons to select percentage of water supplied	
			_ <u>OR</u> value	
WATER LOSSES (Water Supplied - Authorized Consumption)	2,716.416	acre-ft/yr		
Apparent Losses		1	Pont: Value:	
Unauthorized consumption: + ? Default option selected for unauthorized consumption		acre-ft/yr	0.25% O acre-ft/yr	
Customer metering inaccuracies: + ?	4 307.877	1	1.00% O acre-ft/yr	
Systematic data handling errors: + ?		acre-ft/yr	0.25% C acre-ft/yr	
Default option selected for Systematic data handling				
Apparent Losses: ?	406.116	acre-ft/yr		
	Use Customer Retail Unit Cost			
Real Losses = Water Losses - Apparent Losses:         ?	2,250.300	acre-ft/yr		
		acre-ft/yr		
NON-REVENUE WATER         NON-REVENUE WATER       ?	2,250.300	acre-ft/yr acre-ft/yr		
Real Losses = Water Losses - Apparent Losses:       ?         WATER LOSSES:       ?         NON-REVENUE WATER	2,250.300 2,716.416	acre-ft/yr acre-ft/yr		
Real Losses - Water Losses of CARL)         Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER:         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?	2,250.300 2,716.416 3,211.388 7 423.9 7 25,527	acre-ft/yr acre-ft/yr acre-ft/yr miles		
Real Losses - Water Losses of CARL)         Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER:         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?	2,250.300 2,716.416 3,211.388 7 423.9 7 25,527	acre-ft/yr acre-ft/yr acre-ft/yr		
Real Losses - Water Losses of CARLY         Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Service connection density: ?         Are customer meters typically located at the curbstop or property line?	2,250.300 2,716.416 3,211.388 7 423.9 7 25,527	acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main	s, <u>beyond</u> the property boundary,	
Real Losses - Mater Losses of CARLY         Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER:         e Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Service connection density: ?	2,250.300           2,716.416           3,211.388           7           423.9           7           25,527           60           Yes	acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main (length of service line that is the responsibil		
Real Losses - Water Losses of CARLY         Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Service connection density: ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line: + ?	2,250.300           2,716.416           3,211.388           7           423.9           7           25,527           60           Yes	acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main (length of service line that is the responsibil		
Real Losses - Water Losses - Apparent Losses: 2         WATER LOSSES: 2         WATER LOSSES: 2         NON-REVENUE WATER: 2         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + 2         Number of active AND inactive service connections: + 2         Service connection density: 2         Are customer meters typically located at the curbstop or property line? Average length of customer service line: + 2         Average length of customer service line has been set to zero	2,250.300 2,716.416 3,211.388 7 423.9 7 25,527 60 Yes and a data grading score	acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main (length of service line that is the responsibil		
Real Losses = Water Losses - Apparent Losses: 2         WATER LOSSES:         WATER LOSSES:         NON-REVENUE WATER: 2         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + 2         Number of active AND inactive service connections: + 2         Number of active AND inactive service connections: + 2         Number of active AND inactive service connections: + 2         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average operating pressure: + 2         COST DATA         Total annual cost of operating water system: + 2	2,250.300 2,716.416 3,211.388 7 7 7 7 25,527 60 7 7 8 and a data grading score 5 7 9.1 10 \$27,935,986	acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main (length of service line that is the responsibil of 10 has been applied psi		
Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         WATER LOSSES:         NON-REVENUE WATER:         2         WATER LOSSES:         NON-REVENUE WATER:         2         Water Losses + Unbilled Metered + Unbilled Unmetered         System DATA         Length of mains: + ? ?         Number of active AND inactive service connections: + ? ?         Number of active AND inactive service connections: + ? ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average operating pressure: + ? ?         Cost DATA         Total annual cost of operating water system: + ? ?       ? ?         Customer retail unit cost (applied to Apparent Losses): + ? ?       ? ?	2,250.300           2,716.416           3,211.388           7         423.9           7         25,527           60         Yes           and a data grading score         5           5         79.1           10         \$27,935,986           9         \$1.83	acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main (length of service line that is the responsibil of 10 has been applied psi		
Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         WATER LOSSES:         NON-REVENUE WATER:         e Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Number of active AND inactive service connections: + ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line: + ?         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average operating pressure: + ?         Cost DATA         Total annual cost of operating water system: + ?         Customer retail unit cost (applied to Apparent Losses): + ?	2,250.300           2,716.416           3,211.388           7         423.9           7         25,527           60         Yes           and a data grading score         5           5         79.1           10         \$27,935,986           9         \$1.83	acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main (length of service line that is the responsibil of 10 has been applied psi \$/Year \$/100 cubic feet (ccf)		
Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         WATER LOSSES:         NON-REVENUE WATER:         = Water Losses + Unbilled Metered + Unbilled Unmetered         System DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Service connection density:         ?         Average length of customer service line: + ?         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average l	2,250.300           2,716.416           3,211.388           7         423.9           7         25,527           60         Yes           and a data grading score         5           5         79.1           10         \$27,935,986           9         \$1.83	acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main (length of service line that is the responsibil of 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/acre-ft		
Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         WATER LOSSES:         NON-REVENUE WATER:         = Water Losses + Unbilled Metered + Unbilled Unmetered         System DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Service connection density:         ?         Average length of customer service line: + ?         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average l	2,250.300           2,716.416           3,211.388           7           423.9           7           25,527           60           Yes           and a data grading scort           5           79.1           10           \$27,935,986           9           \$1.83           7           \$255.62           CORE IS: 60 out of 100 **	acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main (length of service line that is the responsibil of 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/acre-ft	lity of the utility)	
Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         WATER LOSSES:         NON-REVENUE WATER         a Water Losses + Unbilled Metered + Unbilled Unmetered         System DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Service connection density: ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line: + ?         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average operating pressure: + ?         Cost DATA         WATER AUDIT DATA VALIDITY SCORE:         WATER AUDIT DATA VALIDITY SCORE:	2,250.300           2,716.416           3,211.388           7           423.9           7           25,527           60           Yes           and a data grading scort           5           79.1           10           \$27,935,986           9           \$1.83           7           \$255.62           CORE IS: 60 out of 100 **	acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main (length of service line that is the responsibil of 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/acre-ft	lity of the utility)	
Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         WATER LOSSES:         NON-REVENUE WATER:         = Water Losses + Unbilled Metered + Unbilled Unmetered         System DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Number of active AND inactive service connections: + ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Variable production cost (applied to Apparent Losses): + ?         Variable production cost (applied to Real Losses): + ?         WATER AUDIT	2,250.300         2,716.416         3,211.388         7       423.9         7       25,527         60         Yes         9       Yes         9       \$1.83         7       \$255.62         9       \$1.83         7       \$255.62         CORE IS: 60 out of 100 **         water loss is included in the case	acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main (length of service line that is the responsibil of 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/acre-ft	lity of the utility)	
Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         WATER LOSSES:         NON-REVENUE WATER:         = Water Losses + Unbilled Metered + Unbilled Unmetered         System DATA         Length of mains: • ?         Number of active AND inactive service connections: • ?         Number of active AND inactive service connections: • ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Variable production cost (applied to Apparent Losses): • ?         Variable production cost (applied to Real Losses): • ?         WATER AUDIT	2,250.300         2,716.416         3,211.388         7       423.9         7       25,527         60         Yes         9       Yes         9       \$1.83         7       \$255.62         9       \$1.83         7       \$255.62         CORE IS: 60 out of 100 **         vater loss is included in the car	acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main (length of service line that is the responsibil of 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/acre-ft	lity of the utility)	
Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         WATER LOSSES:         NON-REVENUE WATER:         = Water Losses + Unbilled Metered + Unbilled Unmetered         System DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Number of active AND inactive service connections: + ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Variable production cost (applied to Apparent Losses): + ?         Varia	2,250.300         2,716.416         3,211.388         7       423.9         7       25,527         60         Yes         9       Yes         9       \$1.83         7       \$255.62         9       \$1.83         7       \$255.62         CORE IS: 60 out of 100 **         vater loss is included in the car	acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main (length of service line that is the responsibil of 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/acre-ft	lity of the utility)	
Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         WATER LOSSES:         NON-REVENUE WATER         2         WATER LOSSES:         NON-REVENUE WATER:         2         WATER LOSSES + Unbilled Metered + Unbilled Unmetered         System DATA         Length of mains: • ? ?         Number of active AND inactive service connections: • ? ?         Number of active AND inactive service connection density: ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Average length of customer service line has been set to zero         Variable production cost (applied to Apparent Losses): • ? ? <td co<="" td=""><td>2,250.300         2,716.416         3,211.388         7       423.9         7       25,527         60         Yes         9       Yes         9       \$1.83         7       \$255.62         9       \$1.83         7       \$255.62         CORE IS: 60 out of 100 **         vater loss is included in the car</td><td>acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main (length of service line that is the responsibil of 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/acre-ft</td><td>lity of the utility)</td></td>	<td>2,250.300         2,716.416         3,211.388         7       423.9         7       25,527         60         Yes         9       Yes         9       \$1.83         7       \$255.62         9       \$1.83         7       \$255.62         CORE IS: 60 out of 100 **         vater loss is included in the car</td> <td>acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main (length of service line that is the responsibil of 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/acre-ft</td> <td>lity of the utility)</td>	2,250.300         2,716.416         3,211.388         7       423.9         7       25,527         60         Yes         9       Yes         9       \$1.83         7       \$255.62         9       \$1.83         7       \$255.62         CORE IS: 60 out of 100 **         vater loss is included in the car	acre-ft/yr acre-ft/yr acre-ft/yr miles conn./mile main (length of service line that is the responsibil of 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/acre-ft	lity of the utility)

Image: Click to access definition       Water Audit Report for: Desert Water Agency (3310005) Reporting Year: 2019         Image: Click to add a comment       Water Audit Report for: 2019       1/2019 - 1/2/2019         Please enter data in the white cells bolow. 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. How the mouse over the cell to obtain a description of the grades         Image: Click to add a comment       All volumes to be entered in the input cell. How the mouse over the cell to obtain a description of the grades         Image: Click to add a comment (n/a or 1-10) using the drop-down list to the left of the input cell. How the mouse over the cell to obtain a description of the grades         Image: Click to add a comment (n/a or 1-10) using the drop-down list to the left of the input cell. How the mouse over the cell to obtain a description of the grades         Image: Click to add a comment (n/a or 1-10) using the drop-down list to the left of the input cell. How the mouse over the cell to obtain a description of the grades         Image: Click to add a comment (n/a or 1-10) using the drop-down list to the drop down list down list to the drop down list d
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         CRE-FEET PER YEAR         To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds <u>all</u> criteria for that grade and all grades below it.       Master Meter and Supply Error Adjustments         WATER SUPPLIED       Pent: Value:         Value:       <
To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grades and all grades below it.       Master Meter and Supply Error Adjustments         WATER SUPPLIED       Control of that grade and all grades below it.       Master Meter and Supply Error Adjustments         WATER SUPPLIED       Control of that grade and all grades below it.       Master Meter and Supply Error Adjustments         Water imported:       ©       ? <th?< th="">       ?       ?       ?       &lt;</th?<>
WATER SUPPLIED       Commentation       Enter grading in column 'E' and 'J' Pcnt:       Value:         Volume from own sources:       2       5       29,545.666       acre-ft/yr       2       3       1.43%       acre-ft/yr       acre-ft/yr         Water imported:       2       n/a       0.000       acre-ft/yr       acr
Volume from own sources:       ?       5       29,545.666       acre-ft/yr       Enter negative % or value for over-registration         AUTHORIZED CONSUMPTION       Billed metered:       ?
Water exported:       ?       na       0.000       acre-ft/yr       r       ?       acre-ft/yr         Enter negative % or value for under-registration         MATER SUPPLIED:       29,128.258       acre-ft/yr       Enter negative % or value for over-registration         AUTHORIZED CONSUMPTION       Billed metered:       ?       ?       28,112.120       acre-ft/yr         Billed unmetered:       ?       ?       ?       28,112.120       acre-ft/yr         Unbilled unmetered:       ?       ?       ?       ?       ?         Unbilled unmetered:       ?       ?       ?       ?       ?         MUTHORIZED CONSUMPTION:       ?       28,551.581       acre-ft/yr       Pcnt:       Value:         Unbilled unmetered:       ?       ?       ?       ?       ?       ?       ?         AUTHORIZED CONSUMPTION:       ?       28,551.581       acre-ft/yr       Use buttons to select       percentage of water supplied         WATER LOSSES (Water Supplied - Authorized Consumption)       576.677       acre-ft/yr       unitered:       .       .
WATER SUPPLIED:       29,128.258       acre-ft/yr       Enter positive % or value for over-registration         AUTHORIZED CONSUMPTION       Billed metered: \$?       7       28,112.120       acre-ft/yr       acre-ft/yr         Billed unmetered: \$?       7       28,112.120       acre-ft/yr       acre-ft/yr       buttons below         Unbilled unmetered: \$?       7       28,112.120       acre-ft/yr       acre-ft/yr       buttons below         Unbilled unmetered: \$?       7       28,112.120       acre-ft/yr       acre-ft/yr       buttons below         Unbilled unmetered: \$?       ?       10       71.237       acre-ft/yr       Use buttons to select         MATER LOSSES (Water Supplied - Authorized Consumption)       576.677       acre-ft/yr       Use buttons to select
AUTHORIZED CONSUMPTION       Billed metered: + ?       7       28,112.120       acre-ft/yr       acre-ft/yr       for help using option buttons below         Billed unmetered: + ?       7       28,112.120       acre-ft/yr       acre-ft/yr       for help using option buttons below         Unbilled unmetered: + ?       10       71.237       acre-ft/yr       Pcnt:       Value:         Unbilled unmetered: + ?       10       71.237       acre-ft/yr       Use buttons to select         MATER LOSSES (Water Supplied - Authorized Consumption)       576.677       acre-ft/yr       Image: Click here: Provided for help using option buttons below
Billed metered: +       ?       7       28,112.120       acre-ft/yr       for help using option buttons below         Billed unmetered: +       ?       ?       3       368.224       acre-ft/yr         Unbilled unmetered: +       ?       ?       10       71.237       acre-ft/yr         AUTHORIZED CONSUMPTION: ?       ?       28,551.581       acre-ft/yr       Use buttons to select percentage of water supplied of wa
Dirice during construction       Image: Consto
Unbilled unmetered: + ? 10       71.237       acre-ft/yr         AUTHORIZED CONSUMPTION: ?       28,551.581       acre-ft/yr         Use buttons to select percentage of water supplied       0       0         WATER LOSSES (Water Supplied - Authorized Consumption)       576.677       acre-ft/yr
AUTHORIZED CONSUMPTION:     2     28,551.581     acre-ft/yr     percentage of water supplied       OR value     OR value     OR     OR
AUTHORIZED CONSUMPTION:     2     28,551.581     acre-ft/yr     percentage of water supplied       OR value     OR value     OR     OR
WATER LOSSES (Water Supplied - Authorized Consumption) 576.677 acre-ft/yr
Apparent Losses Pcnt: 🔶 Value:
Unauthorized consumption: + ? 72.821 acre-ft/yr 0.25% O acre-ft/yr
Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed
Customer metering inaccuracies: + ? 7 229.680 acre-ft/yr 0.80% O acre-ft/yr Systematic data handling errors: + ? 70.280 acre-ft/yr 0.25% O C acre-ft/yr
Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed
Apparent Losses: <b>372.781</b> acre-ft/yr
Real Losses (Current Annual Real Losses or CARL)
Real Losses = Water Losses - Apparent Losses:     ?     203.896     acre-ft/yr
WATER LOSSES: 576.677 acre-ft/yr
NON-REVENUE WATER       ?       1,016.138       acre-ft/yr         = Water Losses + Unbilled Metered + Unbilled Unmetered       ?       1,016.138       acre-ft/yr
SYSTEM DATA
Length of mains:       +       ?       7       424.7       miles         Number of <u>active AND inactive</u> service connections:       +       ?       7       25,508         Service connection density:       ?       60       conn./mile main
Are customer meters typically located at the curbstop or property line? Yes <u>Average</u> length of customer service line: + ? (length of service line, <u>beyond</u> 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: + ? 5 79.7 psi
COST DATA
Total annual cost of operating water system: + ? 10 \$27,896,593 \$/Year
Customer retail unit cost (applied to Apparent Losses): + ? 9 \$2.02 \$/100 cubic feet (ccf) Variable production cost (applied to Real Losses): + ? 7 \$280.56 \$/acre-ft
WATER AUDIT DATA VALIDITY SCORE:
*** YOUR SCORE IS: 62 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: Volume from own sources
2: Unbilled metered
3: Billed metered

<b>AWWA WLCC Free Water Audit S</b> Copyright© 2010, American Water Works Ass			g Worksheet WAS v4.	2 Back to Instructions
Click to access definition Water Audit Report for: Reporting Year:		hority 10 - 6/2011		
Please enter data in the white cells below. Where available, metered values sho	ould be used; if metered	d values are unava	ilable please estimate a value. Ind	licate your confidence in the accuracy of
			ONS (US) PER YEAR	,
WATER SUPPLIED	<< Ente	er grading in	column 'E'	
Volume from own sources:	? 7		Million gallons (US)/yr	(MG/Yr)
Master meter error adjustment (enter positive value):	? 7		under-registered	MG/Yr
Water imported: Water exported:	? n/a ? n/a		MG/Yr MG/Yr	
WATER SUPPLIED:		7,427.754	-,	
AUTHORIZED CONSUMPTION Billed metered:	? 7	6,779.170	MG/Yr	Click here: ?
Billed unmetered:			MG/Yr	buttons below
Unbilled metered:	? n/a		MG/Yr Pcn	
Unbilled unmetered:	?	92.847		5% • •
Default option selected for Unbilled unmeter	ered - a grading	of 5 is app	lied but not displayed	• · · · · · · · · · · · · · · · · · · ·
AUTHORIZED CONSUMPTION:	?	6,872.017	MG/Yr	immediate buttons to select percentage of water supplied <u>OR</u>
WATER LOSSES (Water Supplied - Authorized Consumption	ı)	555.737	MG/Yr	value
Apparent Losses			Pcn	t: ▼ Value:
Unauthorized consumption:	?	18.569		
Default option selected for unauthorized consumpt	ion - a grading	of 5 is appl	lied but not displayed	
Customer metering inaccuracies:	? 7	138.350	MG/Yr 2.0	0% • •
Systematic data handling errors:	? 7	36.000	MG/Yr	
Apparent Losses:	?	192.920		Choose this option to enter a percentage of billed metered
Real Losses (Current Annual Real Losses or CARL)				consumption. This is NOT a default value
Real Losses = Water Losses - Apparent Losses:	?	362.817	MG/Yr	
WATER LOSSES:		555.737	MG/Yr	
NON-REVENUE WATER				
NON-REVENUE WATER:	?	648.584	MG/Yr	
= Total Water Loss + Unbilled Metered + Unbilled Unmetered				
SYSTEM DATA				
Length of mains:	? 9	325.7	miles	
Number of <u>active AND inactive</u> service connections:	? 9	21,084		
Connection density:			conn./mile main	
<u>Average</u> length of customer service line:	? 9	20.0		th between curbstop and customer roperty boundary)
Average operating pressure:	? 8	70.0	psi	
COST DATA				
		¢10,004,051	A /	
Total annual cost of operating water system: Customer retail unit cost (applied to Apparent Losses):			<pre>\$/Year \$/100 cubic feet (ccf)</pre>	
Variable production cost (applied to Real Losses):	? 8		\$/Million gallons	
-				
PERFORMANCE INDICATORS				
Financial Indicators				
Non-revenue water as percent by	volume of Wate:	r Supplied:	8.7%	
Non-revenue water as percent by Annua	cost of operat: l cost of Appare	ing system: ent Losses:	4.1% \$301,739	
	nnual cost of Re	eal Losses:	\$160,717	
Operational Efficiency Indicators				
Apparent Losses per s	ervice connectio	on per day:	25.07 gal	lons/connection/day
Real Losses per se	rvice connection	n per day*:	47.15 gal:	lons/connection/day
	r length of main		N/A	
Kear Hosses he		. per day .	N/A	



		Water Audit So rting Workshee			WAS American Water Works A byright © 2014, All Rights	
	lit Report for: City of Indio/In porting Year: 2017	dio Water Authority 7/2016 - 6/2017	(3310020)		]	
Please enter data in the white cells below. Where available, met data by grading each component (n/a or 1-10) using the drop-dor	wn list to the left of the input cell. H	ered values are unavailab lover the mouse over the e entered as: ACRE-F	e cell to obtain a description of th	cate your confidence in the a e grades	ccuracy of the input	
To select the correct data grading fo	r each input, determine the hig	hest grade where the		Maataa Mataa and Curak		
WATER SUPPLIED	eds <u>all</u> criteria for that grade ar >	•	in column 'E' and 'J'>	Master Meter and Supply Pcnt:	Value:	
	own sources: + ? 7 ater imported: + ? n/a	17,614.600	acre-ft/yr + ? acre-ft/yr + ?	3		acre-ft/yr acre-ft/yr
	ater exported: + ? n/a		acre-ft/yr + ?	<u> </u>	a	acre-ft/yr
WATE	R SUPPLIED:	17,705.000	acre-ft/yr	Enter negative % or value Enter positive % or value	•	
AUTHORIZED CONSUMPTION				Clic	k here: ?	
	Billed metered: + ? 8 ed unmetered: + ? 10	16,529.430 3.200	acre-ft/yr acre-ft/yr		help using option tons below	
	oilled metered: + ? 10	132.700	acre-ft/yr	Pcnt:	Value:	
Unbille	ed unmetered: + ? 5	44.263	acre-ft/yr		44.263 a	acre-ft/yr
AUTHORIZED CO	NSUMPTION: ?	16,709.593	acre-ft/yr		e buttons to select tage of water supplied	i
WATER LOSSES (Water Supplied - Authorized Consur	nption)	995.407	acre-ft/yr		value	
Apparent Losses				Pcnt:	Value:	
Unauthorized Default option selected for una	consumption: + ?		acre-ft/yr but not displayed	0.25% 💿 🔾	e e e e e e e e e e e e e e e e e e e	acre-ft/yr
Customer metering	inaccuracies: + ? 4	168.304	acre-ft/yr	1.00% 🔍 🔾		acre-ft/yr
Systematic data h Default option selected for S	andling errors: + ?		acre-ft/yr applied but not displayed	0.25% 🖲 🗋	e	acre-ft/yr
	arent Losses: ?	253.890				
Real Losses (Current Annual Real Losses or CARL)						
Real Losses = Water Losses - App	arent Losses: 2	741.517 995.407	-			
NON-REVENUE WATER		555.407				
	NUE WATER: ?	1,172.370	acre-ft/yr			
SYSTEM DATA						
	ngth of mains: + ? 10		miles			
Number of <u>active AND inactive</u> service Service conn	e connections: + ? 9 ection density: ?	22,878 67	conn./mile main			
Are customer meters typically located at the curbstop or <u>Average</u> length of custome		Yes	(length of service line that is the responsibili	, <u>beyond</u> the property bounda	ary,	
Average length of customer service l	ine has been set to zero and		of 10 has been applied	., s. tro duity)		
Average opera	ating pressure: + ? 5	72.0	psi			
COST DATA						
Total annual cost of operating		\$26,423,911			1	
Customer retail unit cost (applied to App Variable production cost (applied to		\$2.41 \$163.65	\$/100 cubic feet (ccf) \$/acre-ft Use Cut	stomer Retail Unit Cost to value	real losses	
WATER AUDIT DATA VALIDITY SCORE:						
A unighted cools for the server		E IS: 76 out of 100 ***		Validity Score		
A weighted scale for the comp PRIORITY AREAS FOR ATTENTION:	onents of consumption and water	ioss is included in the call		validity Store		
Based on the information provided, audit accuracy can be improv	ved by addressing the following co	mponents:				
1: Volume from own sources		,				
2: Customer metering inaccuracies						
3: Unauthorized consumption						

	Free Water Audit S Reporting Workshee		WAS v5.0 American Water Works Associati Copyright © 2014, All Rights Reserv
?       Click to access definition         +       Click to add a comment         Water Audit Report for:       City of Reporting Year:         2017-2		(3310020)	
Please enter data in the white cells below. Where available, metered values should be us input data by grading each component (n/a or 1-10) using the drop-down list to the left of All volume		over the cell to obtain a descrip	
To select the correct data grading for each input, determ			
the utility meets or exceeds all criteria for that g	•		Master Meter and Supply Error Adjustments
Volume from own sources: + ?	< Enter grading     7   19,228.000	in column 'E' and 'J'	Pcnt: Value: 5 () • -95.404 acre-ft/y
Water imported: + ?			
Water exported: + ?	n/a 0.000	acre-ft/yr + ?	Enter negative % or value for under-registration
WATER SUPPLIED:	19,323.404	acre-ft/yr	Enter positive % or value for over-registration
	-	·	Click here: ?
Billed metered: + ?	8 18,252.000		for help using option
Billed unmetered: + ? Unbilled metered: + ?	7 <u>1.072</u> 8 17.584	-	buttons below Pcnt: Value:
Unbilled unmetered: + ?	5 48.309		0 48.309 acre-ft/y
			▲ Use buttons to select
AUTHORIZED CONSUMPTION: ?	18,318.965	acre-ft/yr	percentage of water supplied
		1	- <u>OR</u> : value
WATER LOSSES (Water Supplied - Authorized Consumption)	1,004.439	acre-ft/yr	
Apparent Losses Unauthorized consumption: + ?	48.309	acre-ft/yr	Pcnt:
Default option selected for unauthorized consumptio			
Customer metering inaccuracies: + ?		acre-ft/yr	1.00% • • • acre-ft/y
Systematic data handling errors: + ? Default option selected for Systematic data handli		acre-ft/yr	0.25%  C acre-ft/y
Apparent Losses: ?	278.480		
Real Losses (Current Annual Real Losses or CARL) Real Losses = Water Losses - Annarent Losses:	725 960	acre_ff/vr	
Real Losses = Water Losses - Apparent Losses:			
Real Losses = Water Losses - Apparent Losses:       ?         WATER LOSSES:       ?	725.960 1,004.439		
Real Losses = Water Losses - Apparent Losses:	1,004.439	acre-ft/yr	
Real Losses = Water Losses - Apparent Losses:       ?         WATER LOSSES:       .         NON-REVENUE WATER       .	1,004.439	acre-ft/yr	
Real Losses = Water Losses - Apparent Losses:       ?         WATER LOSSES:       ?         NON-REVENUE WATER       ?         = Water Losses + Unbilled Metered + Unbilled Unmetered       ?         SYSTEM DATA       ?	1,004.439	acre-ft/yr acre-ft/yr	
Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?	1,004.439 1,070.332	acre-ft/yr acre-ft/yr	
Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER         e Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?	1,004.439 1,070.332 10 344.0 9 23,135	acre-ft/yr acre-ft/yr	
Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER         e Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Service connection density: ?	1,004.439 1,070.332 10 344.0 9 23,135	acre-ft/yr miles conn./mile main	a beyond the property
Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         MON-REVENUE WATER         2         Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?         Number of active AND inactive service connection density: ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line: + ?	1,004.439 1,070.332 10 344.0 9 23,135 67 Yes	acre-ft/yr acre-ft/yr miles conn./mile main (length of service lind boundary, that is the	e, <u>beyond</u> the property responsibility of the utility)
Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER         e Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Service connection density: ?         Are customer meters typically located at the curbstop or property line?	1,004.439 1,070.332 10 344.0 9 23,135 67 Yes ro and a data grading score	acre-ft/yr acre-ft/yr miles conn./mile main (length of service line boundary, that is the e of 10 has been applied	
Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Service connection density: ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set to ze	1,004.439 1,070.332 10 344.0 9 23,135 67 Yes ro and a data grading score	acre-ft/yr acre-ft/yr miles conn./mile main (length of service line boundary, that is the e of 10 has been applied	
Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Service connection density: ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set to ze	1,004.439 1,070.332 10 344.0 9 23,135 67 Yes ro and a data grading score	acre-ft/yr acre-ft/yr miles conn./mile main (length of service line boundary, that is the e of 10 has been applied	
Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         MON-REVENUE WATER         a Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Number of active AND inactive service connection density: ?         Are customer meters typically located at the curbstop or property line? Average length of customer service line: + ?         Average length of customer service line has been set to ze Average operating pressure: + ?         COST DATA         Total annual cost of operating water system: + ?	1,004.439         1,070.332         10       344.0         9       23,135         67         Yes         ro and a data grading score         5       71.0         10       \$28,280,336	acre-ft/yr acre-ft/yr miles conn./mile main (length of service line boundary, that is the e of 10 has been applied psi	
Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         MON-REVENUE WATER         a Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Number of active AND inactive service connection density: ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line: + ?         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average operating pressure: + ?         COST DATA         Total annual cost of operating water system: + ?         Customer retail unit cost (applied to Apparent Losses): + ?	1,004.439         1,070.332         10       344.0         9       23,135         67         Yes         ro and a data grading score         5       71.0         10       \$28,280,336         9       \$2.42	acre-ft/yr acre-ft/yr miles conn./mile main (length of service line boundary, that is the of 10 has been applied psi \$/Year \$/100 cubic feet (ccf)	responsibility of the utility)
Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER         a Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Number of active AND inactive service connection density: ?         Are customer meters typically located at the curbstop or property line? Average length of customer service line: + ?         Average length of customer service line has been set to ze Average operating pressure: + ?         COST DATA         Total annual cost of operating water system: + ?	1,004.439         1,070.332         10       344.0         9       23,135         67         Yes         ro and a data grading score         5       71.0         10       \$28,280,336         9       \$2.42	acre-ft/yr acre-ft/yr miles conn./mile main (length of service line boundary, that is the of 10 has been applied psi \$/Year \$/100 cubic feet (ccf)	
Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         MON-REVENUE WATER         a Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Number of active AND inactive service connection density: ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line: + ?         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average operating pressure: + ?         COST DATA         Total annual cost of operating water system: + ?         Customer retail unit cost (applied to Apparent Losses): + ?	1,004.439         1,070.332         10       344.0         9       23,135         67         Yes         ro and a data grading score         5       71.0         10       \$28,280,336         9       \$2.42	acre-ft/yr acre-ft/yr miles conn./mile main (length of service line boundary, that is the of 10 has been applied psi \$/Year \$/100 cubic feet (ccf)	responsibility of the utility)
Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER         2         Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + ?         Number of active AND inactive service connections: + ?         Number of active AND inactive service connection density: ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line: + ?         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average operating pressure: + ?         Cost DATA         Total annual cost of operating water system: + ?         Variable production cost (applied to Real Losses): + ?         WATER AUDIT DATA VALIDITY SCORE:	1,004.439         1,070.332         10       344.0         9       23,135         67         Yes         ro and a data grading score         5       71.0         10       \$28,280,336         9       \$2.42         8       \$163.65	acre-ft/yr acre-ft/yr miles conn./mile main (length of service line boundary, that is the boundary, that is the of 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/acre-ft  Use Cu	responsibility of the utility)
Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER         a Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: • ?         System DATA         Length of mains: • ?         Number of active AND inactive service connections: • ?         Number of active AND inactive service connection density: ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line: • ?         Average length of customer service line has been set to zee         Average operating pressure: • ?         COST DATA         Total annual cost of operating water system: • ?         Variable production cost (applied to Apparent Losses): • ?         Variable production cost (applied to Real Losses): • ?         WATER AUDIT DATA VALIDITY SCORE:	1,004.439         1,070.332         10       344.0         9       23,135         67         Yes         ro and a data grading score         5       71.0         10       \$28,280,336         9       \$2.42         8       \$163.65         8       \$163.65	acre-ft/yr acre-ft/yr miles conn./mile main (length of service line boundary, that is the e of 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/acre-ft  Use Co	responsibility of the utility)
Real Losses = Water Losses - Apparent Losses:       ?         WATER LOSSES:       WATER LOSSES:         NON-REVENUE WATER       ?         = Water Losses + Unbilled Metered + Unbilled Unmetered       ?         SYSTEM DATA       Length of mains: + ?         Number of active AND inactive service connections: + ?       ?         Are customer meters typically located at the curbstop or property line?       ?         Average length of customer service line has been set to ze       ?         Average operating pressure: + ?       ?         COST DATA       ?         Yariable production cost (applied to Apparent Losses): + ?       ?         Variable production cost (applied to Real Losses): + ?       ?         WATER AUDIT DATA VALIDITY SCORE:       *** YOUR         A weighted scale for the components of consumption an	1,004.439         1,070.332         10       344.0         9       23,135         67         Yes         ro and a data grading score         5       71.0         10       \$28,280,336         9       \$2.42         8       \$163.65         8       \$163.65	acre-ft/yr acre-ft/yr miles conn./mile main (length of service line boundary, that is the e of 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/acre-ft  Use Co	responsibility of the utility)
Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         MON-REVENUE WATER         a Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + 2         Number of active AND inactive service connections: + 2         Number of active AND inactive service connection density: + 2         Average length of customer service line: + 2         Average length of customer service line: + 2         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average operating pressure: + 2         Cost DATA         Total annual cost of operating water system: + 2         Customer retail unit cost (applied to Apparent Losses): + 2         Variable production cost (applied to Real Losses): + 2         WATER AUDIT DATA VALIDITY SCORE:         *** YOUR         A weighted scale for the components of consumption an <t< td=""><td>1,004.439         1,070.332         10       344.0         9       23,135         67         Yes         ro and a data grading score         5       71.0         10       \$28,280,336         9       \$2.42         8       \$163.65         SCORE IS: 74 out of 100 **         d water loss is included in the car</td><td>acre-ft/yr acre-ft/yr miles conn./mile main (length of service line boundary, that is the e of 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/acre-ft  Use Co</td><td>responsibility of the utility)</td></t<>	1,004.439         1,070.332         10       344.0         9       23,135         67         Yes         ro and a data grading score         5       71.0         10       \$28,280,336         9       \$2.42         8       \$163.65         SCORE IS: 74 out of 100 **         d water loss is included in the car	acre-ft/yr acre-ft/yr miles conn./mile main (length of service line boundary, that is the e of 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/acre-ft  Use Co	responsibility of the utility)
Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER         a Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + 2         Number of active AND inactive service connections + 2         Number of active AND inactive service connection density: + 2         Average length of customer service line: + 2         Average length of customer service line: + 2         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average length o	1,004.439         1,070.332         10       344.0         9       23,135         67         Yes         ro and a data grading score         5       71.0         10       \$28,280,336         9       \$2.42         8       \$163.65         SCORE IS: 74 out of 100 **         d water loss is included in the car	acre-ft/yr acre-ft/yr miles conn./mile main (length of service line boundary, that is the e of 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/acre-ft  Use Co	responsibility of the utility)
Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         NON-REVENUE WATER         a Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: • ?         Number of active AND inactive service connections: • ?         System DATA         Length of mains: • ?         Number of active AND inactive service connection density: ?         Are customer meters typically located at the curbstop or property line?         Average length of customer service line has been set to zee         Average length of customer service line has been set to zee         Average length of customer service line has been set to zee         Average length of customer service line has been set to zee         Average operating water system: • ?         COST DATA         Total annual cost of operating water system: • ?         Customer retail unit cost (applied to Apparent Losses): • ?         Variable production cost (applied to Real Losses): • ?         WATER AUDIT DATA VALIDITY SCORE:         *** YOUF         A weighted scale for the components of consumption an         PRIORITY AREA	1,004.439         1,070.332         10       344.0         9       23,135         67         Yes         ro and a data grading score         5       71.0         10       \$28,280,336         9       \$2.42         8       \$163.65         SCORE IS: 74 out of 100 **         d water loss is included in the car	acre-ft/yr acre-ft/yr miles conn./mile main (length of service line boundary, that is the e of 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/acre-ft  Use Co	responsibility of the utility)
Real Losses = Water Losses - Apparent Losses:         WATER LOSSES:         MON-REVENUE WATER         a Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Length of mains: + 2         Number of active AND inactive service connections + 2         Number of active AND inactive service connection density: + 2         Average length of customer service line: + 2         Average length of customer service line: + 2         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average length of customer service line has been set to ze         Average length o	1,004.439         1,070.332         10       344.0         9       23,135         67         Yes         ro and a data grading score         5       71.0         10       \$28,280,336         9       \$2.42         8       \$163.65         SCORE IS: 74 out of 100 **         d water loss is included in the car	acre-ft/yr acre-ft/yr miles conn./mile main (length of service line boundary, that is the e of 10 has been applied psi \$/Year \$/100 cubic feet (ccf) \$/acre-ft  Use Co	responsibility of the utility)

AWW	A Free Water Audit Softw <u>Reporting Worksheet</u>		WAS v5.0 American Water Works Association pyright © 2014, All Rights Reserved
?       Click to access definition         +       Click to add a comment         Water Audit Report for:       City of Reporting Year:         2018	of Indio/Indio Water Authority (3310 - 2019 7/2018 - 6/2019	0020)	]
Please enter data in the white cells below. Where available, metered values should be input data by grading each component (n/a or 1-10) using the drop-down list to the left		he cell to obtain a description of the grades	he accuracy of the
To select the correct data grading for each input, deter		PERTEAR	<u> </u>
the utility meets or exceeds <u>all</u> criteria for that	grade and all grades below it.	Master Meter and Suppl	y Error Adjustments
WATER SUPPLIED	< Enter grading in colu	i ont.	Value:
Volume from own sources: + Water imported: +	? 7 19,074.900 acre-f ? n/a 0.000 acre-f		acre-ft/yr acre-ft/yr
Water exported: +	? n/a 0.000 acre-f	-ft/yr + ?	acre-ft/yr
WATER SUPPLIED:	<b>19,170.754</b> acre-f	-ft/yr Enter positive % or valu	U
AUTHORIZED CONSUMPTION Billed metered: +	? 8 17,789.490 acre-f		ck here: ?
Billed unmetered: +	? 7 3.180 acre-f	-ft/yr bu	ttons below
Unbilled metered: +	?         8         153.980         acre-f           ?         5         47.927         acre-f		Value:
Unbilled unmetered: +	? 5 47.927 acre-f	-ttyr	47.927 acre-ft/yr
AUTHORIZED CONSUMPTION:	? 17,994.577 acre-f		e buttons to select ercentage of water supplied
	4 470 477		<u>OR</u> value
WATER LOSSES (Water Supplied - Authorized Consumption)	<b>1,176.177</b> acre-f	-π/yr Pcnt: ▼	
Apparent Losses Unauthorized consumption: +	? 47.927 acre-f		Value: acre-ft/yr
Default option selected for unauthorized consumpt			<b></b> ,
Customer metering inaccuracies: +	? 6 181.247 acre-f		acre-ft/yr
,	? 44.474 acre-f		acre-ft/yr
Default option selected for Systematic data han Apparent Losses:	273.648 acre-f		
Apparent Losses.		-io yi	
Real Losses (Current Annual Real Losses or CARL)			
Real Losses = Water Losses - Apparent Losses:	? 902.529 acre-f	-ft/yr	
WATER LOSSES:	1,176.177 acre-f	-ft/yr	
NON-REVENUE WATER NON-REVENUE WATER:	? 1,378.084 acre-f	-ft/yr	
= Water Losses + Unbilled Metered + Unbilled Unmetered SYSTEM DATA			<u> </u>
Length of mains: +	? 10 346.1 miles		
Number of active AND inactive service connections: +	? 9 23,377	-	
Service connection density:	? 68 conn./	ı./mile main	
Are customer meters typically located at the curbstop or property line?	Yes	(length of service line, beyond the property	
Average length of customer service line: +	?	boundary, that is the responsibility of the utility)	
Average length of customer service line has been set to Average operating pressure: +		u nas been applied	
COST DATA			
Total annual cost of operating water system:	? 10 \$22,841,733 \$/Yea	ar	
Customer retail unit cost (applied to Apparent Losses):		0 cubic feet (ccf)	
Variable production cost (applied to Real Losses): +	? 8 \$198.93 \$/acre	re-ft Use Customer Retail Unit Cost to value	e real losses
WATER AUDIT DATA VALIDITY SCORE:			
*** YOI	JR SCORE IS: 74 out of 100 ***		
A weighted scale for the components of consumption	and water loss is included in the calculatio	on of the Water Audit Data Validitv Score	
PRIORITY AREAS FOR ATTENTION:			
	following components:		
Based on the information provided, audit accuracy can be improved by addressing the 1: Volume from own sources	tonowing components.		
2: Customer metering inaccuracies			
3: Unauthorized consumption			

	A۱		e Water Audit S orting Workshee			WA: American Water Work Copyright © 2014, All Rig	
Click to access definition     Click to add a comment	Water Audit Report for: Reporting Year:		Indio Water Authority 7/2019 - 6/2020	(CA3310020)			
	below. Where available, metered values sho ent (n/a or 1-10) using the drop-down list to t	he left of the inp	out cell. Hover the mouse	over the cell to obtain a des		ce in the accuracy of the	
			be entered as: ACRE-I	FEET PER YEAR			_
l o sele	ct the correct data grading for each input the utility meets or exceeds <u>all</u> criteria for				Master Meter and S	Supply Error Adjustmen	ts
WATER SUPPLIED		<	Enter grading	in column 'E' and 'J'	> Pcnt:	Value:	
	Volume from own sources:		19,422.100		? 3 -0.30%	0	acre-ft/yr
	Water imported: Water exported:			acre-ft/yr + acre-ft/yr +	?		acre-ft/yr acre-ft/yr
						r value for under-registi	1
	WATER SUPPLIED:		19,480.542	acre-ft/yr	Enter positive % or	value for over-registrat	ion
AUTHORIZED CONSUMPTION						Click here: ?	
	Billed metered: Billed unmetered:		17,806.000	acre-ft/yr acre-ft/yr		for help using option buttons below	
	Unbilled metered:		275.500		Pcnt:	Value:	
	Unbilled unmetered:	+ ? 5	48.701	acre-ft/yr		<b>●</b> 48.701	acre-ft/yr
			40,400,404		<b>^</b>	Use buttons to select	
	AUTHORIZED CONSUMPTION:	?	18,133.461	acre-tt/yr		percentage of water supplied	
				1		<u>OR</u> value	
	lied - Authorized Consumption)		1,347.080	acre-ft/yr			
Apparent Losses	Unauthorized consumption:	+ ?	48 701	acre-ft/yr	Pcnt: 0.25%	▼ Value:	acre-ft/yr
Default	option selected for unauthorized cons				0.23 //		
	Customer metering inaccuracies:			acre-ft/yr	1.50%	0	acre-ft/yr
	Systematic data handling errors:	+ ?	44.515	acre-ft/yr	0.25%	С	acre-ft/yr
Defa	ult option selected for Systematic data	a handling eri			/ed		
	Apparent Losses:	<u> </u>	368.569	acre-tt/yr			
Real Losses (Current Annual	Real Losses or CARL)						
Real Losse	s = Water Losses - Apparent Losses:	?	978.511	acre-ft/yr			
	WATER LOSSES:		1,347.080	acre-ft/yr			
NON-REVENUE WATER							-
- Materia and Albert	NON-REVENUE WATER:	?	1,671.282	acre-ft/yr			
= Water Losses + Unbilled Metered SYSTEM DATA	1 + Onblined Onmetered						-
OTOTEM DATA	Length of mains:	+ ? 10	344.0	miles			
Number of a	active AND inactive service connections:		24,194				
	Service connection density:	?	70	conn./mile main			
	located at the curbstop or property line?		Yes	(length of service	line, beyond the property		
	Average length of customer service line: th of customer service line has been s		d a data grading scor		the responsibility of the ut	ility)	
Average leng	Average operating pressure:		69.0		•		
							_
COST DATA							
	I annual cost of operating water system:		\$21,828,275				
	I unit cost (applied to Apparent Losses): roduction cost (applied to Real Losses):			\$/100 cubic feet (ccf)			
variable p	rouucion cost (applied to Real LOSSES):	+ ? 7	\$103.05	\$/acre-ft Us	e Customer Retail Unit Cost to	o value real losses	
WATER AUDIT DATA VALIDITY							-
							1
			RE IS: 78 out of 100 **				
A	weighted scale for the components of consun	nption and water	r loss is included in the ca	Iculation of the Water Audit	Data Validity Score		
PRIORITY AREAS FOR ATTENTI	<u>ON:</u>						
Based on the information provided	audit accuracy can be improved by address	ng the following	components:				
1: Volume from own sources							
2: Customer metering inaccur	acies						
3: Unauthorized consumption							

	AWV	VA Free Wate <u>Reporting</u>	er Audit So Workshee			WA American Water Work Copyright © 2014, All Rig	
Click to access definition     Click to add a comment	Water Audit Report for: Miss Reporting Year:		er District 015 - 12/2015				
Please enter data in the white cells below. Where an data by grading each component (n/a or 1-10) using	g the drop-down list to the left of the	e input cell. Hover th	e mouse over the	cell to obtain a description of th		nce in the accuracy of the input	
To select the correct data	a grading for each input, determ	umes to be enter					-
	eets or exceeds <u>all</u> criteria for th				Master Meter a	nd Supply Error Adjustmen	ts
WATER SUPPLIED			0 0	n column 'E' and 'J'	T OIL.	Value:	-
V	/olume from own sources: + Water imported: +	? 8 ? n/a	7,252.000	acre-ft/yr + ? acre-ft/yr + ?	8		acre-ft/yr acre-ft/yr
	Water exported: +	? n/a		acre-ft/yr + ?		<u> </u>	acre-ft/yr
	WATER SUPPLIED:		7 252 000		0	% or value for under-registi	
	WATER SUPPLIED:		7,252.000	acre-tt/yr	Enter positive %	6 or value for over-registrat	- -
AUTHORIZED CONSUMPTION	Billed metered: +	? 8	6,506.000	core thur		Click here: ?	
	Billed unmetered: +	? 8		acre-ft/yr		for help using option buttons below	
	Unbilled metered: +	? 8		acre-ft/yr	Pcnt:	Value:	-
	Unbilled unmetered: +	? 7		acre-ft/yr	1.25%		acre-ft/yr
	selected for Unbilled unmeter	red - a grading of				Use buttons to select	
AUTHC	DRIZED CONSUMPTION:		6,596.650	acre-tt/yr		percentage of water suppli OR	ed
					-	value	
WATER LOSSES (Water Supplied - Authoriz	ed Consumption)		655.350	acre-ft/yr			
Apparent Losses		2	10,100		Pcnt:	Value:	1
	nauthorized consumption: +			acre-ft/yr	0.25%	$\odot$ $\bigcirc$	acre-ft/yr
		? 8					<b>6</b> 4/4 m
	ner metering inaccuracies: + natic data handling errors: +	? 8		acre-ft/yr acre-ft/yr	0.25%	<u> </u>	acre-ft/yr acre-ft/yr
-	lected for Systematic data ha	ndling errors - a	grading of 5 is	applied but not displayed			
	Apparent Losses:	?	34.395	acre-ft/yr			
Real Losses (Current Annual Real Losses o		2	620.955	core thur			
	sses - Apparent Losses:						
	WATER LOSSES:		655.350	acre-tt/yr			_
NON-REVENUE WATER	NON-REVENUE WATER:	2	746.000	acro ft/ur			
= Water Losses + Unbilled Metered + Unbilled Unme		·	740.000	acie-ivyi			
SYSTEM DATA							-
	Length of mains: +	? 8	240.0				
Number of <u>active AND ina</u>	ctive service connections.	? 7		miles			
00			12,967				
	ervice connection density:	?	1	miles conn./mile main			
Are customer meters typically located at the	ervice connection density:	?	1	conn./mile main (length of service line		erty boundary,	
<u>Average</u> length	ervice connection density: curbstop or property line? n of customer service line: *	?	54 Yes	conn./mile main (length of service line that is the responsibil		erty boundary,	
<u>Average</u> length Average length of custome	ervice connection density:	? ? o zero and a data	54 Yes	conn./mile main (length of service line that is the responsibil of 10 has been applied		erty boundary,	
<u>Average</u> length Average length of custome	ervice connection density: curbstop or property line? n of customer service line: + er service line has been set to	? ? o zero and a data	54 Yes grading score	conn./mile main (length of service line that is the responsibil of 10 has been applied		erty boundary,	_
<u>Average</u> length Average length of custome	ervice connection density: curbstop or property line? n of customer service line: + er service line has been set to	? ? o zero and a data	54 Yes grading score	conn./mile main (length of service line that is the responsibil of 10 has been applied		erty boundary,	-
Average length Average length of custome Ave	ervice connection density: curbstop or property line? n of customer service line: + er service line has been set to	2 2 zero and a data 2 7	54 Yes grading score	conn./mile main (length of service line that is the responsibil of 10 has been applied psi		erty boundary,	-
Average length Average length of custome Average length of custome Average length Average length of custome Average length of custome Customer retail unit cost (app	ervice connection density: curbstop or property line? n of customer service line: * er service line has been set to erage operating pressure: * of operating water system: * plied to Apparent Losses): *	? 2 zero and a data ? 7 ? 8 ? 8	54 Yes grading score 65.0 \$8,792,437 \$2.97	conn./mile main (length of service line that is the responsibil of 10 has been applied psi \$/Year \$/1000 gallons (US)	ity of the utility)		-
Average length Average length of custome Average length of custome Average length Average length of custome Average length of custome Customer retail unit cost (app	ervice connection density: curbstop or property line? n of customer service line: * er service line has been set to erage operating pressure: * of operating water system: *	? 2 zero and a data ? 7 ? 8 ? 8	54 Yes grading score 65.0 \$8,792,437	conn./mile main (length of service line that is the responsibil of 10 has been applied psi \$/Year \$/1000 gallons (US)	ity of the utility)	erty boundary,	-
Average length Average length of custome Average length of custome Average length Average length of custome Average length of custome Customer retail unit cost (app	ervice connection density: curbstop or property line? n of customer service line: * er service line has been set to erage operating pressure: * of operating water system: * plied to Apparent Losses): *	? 2 zero and a data ? 7 ? 8 ? 8	54 Yes grading score 65.0 \$8,792,437 \$2.97	conn./mile main (length of service line that is the responsibil of 10 has been applied psi \$/Year \$/1000 gallons (US)	ity of the utility)		-
Average length Average length of custome Average length of custome Average length Average length of custome Average length of custome Customer retail unit cost (app	ervice connection density: curbstop or property line? n of customer service line: * er service line has been set to erage operating pressure: * of operating water system: * plied to Apparent Losses): *	? 2 zero and a data ? 7 ? 8 ? 8	54 Yes grading score 65.0 \$8,792,437 \$2.97	conn./mile main (length of service line that is the responsibil of 10 has been applied psi \$/Year \$/1000 gallons (US)	ity of the utility)		-
Average length Average length of custome Average length of custome Average length of custome Average length Average length Ave	ervice connection density: curbstop or property line? n of customer service line: <b>*</b> <b>er service line has been set to</b> erage operating pressure: <b>*</b> of operating water system: <b>*</b> plied to Apparent Losses): <b>*</b> t (applied to Real Losses): <b>*</b>	? 2 zero and a data ? 7 ? 8 ? 8	54 Yes grading score 65.0 \$8,792,437 \$2.97 \$432.00	conn./mile main (length of service line that is the responsibil of 10 has been applied psi \$/Year \$/1000 gallons (US) \$/acre-ft Use Cu	ity of the utility)		-
Average length Average length Average length of custome Ave COST DATA Total annual cost of Customer retail unit cost (app Variable production cost WATER AUDIT DATA VALIDITY SCORE:	ervice connection density: curbstop or property line? n of customer service line: <b>*</b> <b>er service line has been set to</b> erage operating pressure: <b>*</b> of operating water system: <b>*</b> plied to Apparent Losses): <b>*</b> t (applied to Real Losses): <b>*</b>	2     2     2     2     2     7     7     8     2     8	54 Yes grading score 65.0 \$8,792,437 \$2.97 \$432.00 6 out of 100 ***	conn./mile main (length of service line that is the responsibil of 10 has been applied psi \$/Year \$/1000 gallons (US) \$/acre-ft Use Cu	ity of the utility)		-
Average length Average length of custome Average length of custome Average length of custome Average length Ave	ervice connection density: curbstop or property line? n of customer service line: * er service line has been set to erage operating pressure: * of operating water system: * plied to Apparent Losses): * t (applied to Real Losses): *	2     2     2     2     2     7     7     8     2     8	54 Yes grading score 65.0 \$8,792,437 \$2.97 \$432.00 6 out of 100 ***	conn./mile main (length of service line that is the responsibil of 10 has been applied psi \$/Year \$/1000 gallons (US) \$/acre-ft Use Cu	ity of the utility)		-
Average length Average length of custome Average length of custome Average length of custome Average length of custome Average length Average	ervice connection density: curbstop or property line? n of customer service line: * er service line has been set to erage operating pressure: * of operating water system: * plied to Apparent Losses): * t (applied to Real Losses): * *** Y( for the components of consumption	?	54 Yes grading score 65.0 \$8,792,437 \$2.97 \$432.00 6 out of 100 *** ncluded in the calc	conn./mile main (length of service line that is the responsibil of 10 has been applied psi \$/Year \$/1000 gallons (US) \$/acre-ft Use Cu	ity of the utility)		-
Average length Average length of custome Average length of custome Average length of custome Average length of custome Average length Average	ervice connection density: curbstop or property line? n of customer service line: * er service line has been set to erage operating pressure: * of operating water system: * plied to Apparent Losses): * t (applied to Real Losses): * *** Y( for the components of consumption	?	54 Yes grading score 65.0 \$8,792,437 \$2.97 \$432.00 6 out of 100 *** ncluded in the calc	conn./mile main (length of service line that is the responsibil of 10 has been applied psi \$/Year \$/1000 gallons (US) \$/acre-ft Use Cu	ity of the utility)		-
Average length Average length of custome Average length of custome Average length of custome Average length of custome Average length Average	ervice connection density: curbstop or property line? n of customer service line: * er service line has been set to erage operating pressure: * of operating water system: * plied to Apparent Losses): * t (applied to Real Losses): * *** Y( for the components of consumption	?	54 Yes grading score 65.0 \$8,792,437 \$2.97 \$432.00 6 out of 100 *** ncluded in the calc	conn./mile main (length of service line that is the responsibil of 10 has been applied psi \$/Year \$/1000 gallons (US) \$/acre-ft Use Cu	ity of the utility)		-
Average length Average length of custome Average length Average len	ervice connection density: curbstop or property line? n of customer service line: * er service line has been set to erage operating pressure: * of operating water system: * plied to Apparent Losses): * t (applied to Real Losses): * *** Y( for the components of consumption	?	54 Yes grading score 65.0 \$8,792,437 \$2.97 \$432.00 6 out of 100 *** ncluded in the calc	conn./mile main (length of service line that is the responsibil of 10 has been applied psi \$/Year \$/1000 gallons (US) \$/acre-ft Use Cu	ity of the utility)		-
Average length Average length of custome Average length of custome Average length of custome Average length of custome Average length Average	ervice connection density: curbstop or property line? n of customer service line: * er service line has been set to erage operating pressure: * of operating water system: * plied to Apparent Losses): * t (applied to Real Losses): * *** Y( for the components of consumption	?	54 Yes grading score 65.0 \$8,792,437 \$2.97 \$432.00 6 out of 100 *** ncluded in the calc	conn./mile main (length of service line that is the responsibil of 10 has been applied psi \$/Year \$/1000 gallons (US) \$/acre-ft Use Cu	ity of the utility)		-

AV	WWA Free Water Audit S Reporting Workshee		WAS v5.0 American Water Works Associatior
Click to access definition     Water Audit Report for:     Click to add a comment     Reporting Year:	Mission Springs Water District (33 2016 1/2016 - 12/2016		
Please enter data in the white cells below. Where available, metered values shou input data by grading each component (n/a or 1-10) using the drop-down list to the	uld be used; if metered values are unavai		
All	volumes to be entered as: ACRE-I	FEET PER YEAR	
To select the correct data grading for each input, the utility meets or exceeds <u>all</u> criteria fo		Ma	stor Motor and Supply Error Adjustments
WATER SUPPLIED		in column 'E' and 'J'>	ster Meter and Supply Error Adjustments Pcnt: Value:
Volume from own sources:	+ ? 7 7,222.900	acre-ft/yr + ? 3	acre-ft/yr
Water imported: Water exported:		acre-ft/yr + ?	acre-ft/yr acre-ft/yr
Water exported.			ter negative % or value for under-registration
WATER SUPPLIED:	7,222.900	acre-ft/yr En	ter positive % or value for over-registration
AUTHORIZED CONSUMPTION			Click here: ?
Billed metered: Billed unmetered:	+ ? 5 6,503.000 + ? n/a 0.000		for help using option buttons below
Unbilled metered:	+ ? n/a 0.000 + ? 8 0.974	-	Pcnt: Value:
Unbilled unmetered:	+ ? 7 2.090	· · · · · · · · · · · · · · · · · · ·	2.090 acre-ft/yr
		1	▲ Use buttons to select
AUTHORIZED CONSUMPTION:	? 6,506.064	acre-ft/yr	percentage of water supplied
WATER LOSSES (Water Supplied - Authorized Consumption)	716.836	acre-ft/yr	OR value
Apparent Losses			Pcnt: ▼ Value:
Unauthorized consumption:	+ ? 18.057	acre-ft/yr	0.25% O acre-ft/yr
Default option selected for unauthorized cons	umption - a grading of 5 is applied	but not displayed	
Customer metering inaccuracies: Systematic data handling errors:		acre-ft/yr acre-ft/yr	1.00% ● ○ acre-ft/yr 0.25% ● C acre-ft/yr
Default option selected for Systematic data			0.25% • C acre-ft/yr
Apparent Losses:		acre-ft/yr	
<u>Real Losses (Current Annual Real Losses or CARL)</u> Real Losses = Water Losses - Apparent Losses:	? 616.825	acre-ft/yr	
WATER LOSSES:		acre-ft/yr	
NON-REVENUE WATER = Water Losses + Unbilled Metered + Unbilled Unmetered	? 719.900	acre-ft/yr	
SYSTEM DATA			
Length of mains:	+ ? 8 390.0	miles	
Number of <u>active AND inactive</u> service connections:	+ ? 7 13,098		
		conn /mile main	
Service connection density:	?	conn./mile main	
Are customer meters typically located at the curbstop or property line?	? 34 Yes	(length of service line, <u>be</u>	
Are customer meters typically located at the curbstop or property line? <u>Average</u> length of customer service line:	? 34 Yes	(length of service line, <u>be</u> boundary, that is the resp	
Are customer meters typically located at the curbstop or property line?		(length of service line, <u>be</u> boundary, that is the resp of 10 has been applied	
Are customer meters typically located at the curbstop or property line? <u>Average</u> length of customer service line: Average length of customer service line has been service line		(length of service line, <u>be</u> boundary, that is the resp of 10 has been applied	
Are customer meters typically located at the curbstop or property line? <u>Average</u> length of customer service line: Average length of customer service line has been service line		(length of service line, <u>be</u> boundary, that is the resp of 10 has been applied	
Are customer meters typically located at the curbstop or property line? <u>Average</u> length of customer service line has been so Average operating pressure: COST DATA Total annual cost of operating water system:	?         34           Yes         Yes           et to zero and a data grading score         *           *         ?         7           65.0         *         *           *         ?         10         \$9,334,124	(length of service line, <u>be</u> boundary, that is the resp e of 10 has been applied psi \$/Year	
Are customer meters typically located at the curbstop or property line? <u>Average</u> length of customer service line has been se Average length of customer service line has been se Average operating pressure: COST DATA Total annual cost of operating water system: Customer retail unit cost (applied to Apparent Losses):	?       34         Yes         et to zero and a data grading score         + ?       7         65.0         + ?       10         \$9,334,124         + ?       8         \$2.97	(length of service line, <u>be</u> boundary, that is the resp of <b>10 has been applied</b> psi \$/Year \$/1000 gallons (US)	ionsibility of the utility)
Are customer meters typically located at the curbstop or property line? <u>Average</u> length of customer service line has been so Average operating pressure: COST DATA Total annual cost of operating water system:	?       34         Yes         et to zero and a data grading score         + ?       7         65.0         + ?       10         \$9,334,124         + ?       8         \$2.97	(length of service line, <u>be</u> boundary, that is the resp of <b>10 has been applied</b> psi \$/Year \$/1000 gallons (US)	
Are customer meters typically located at the curbstop or property line? <u>Average</u> length of customer service line has been se Average length of customer service line has been se Average operating pressure: COST DATA Total annual cost of operating water system: Customer retail unit cost (applied to Apparent Losses):	?       34         Yes         et to zero and a data grading score         + ?       7         65.0         + ?       10         \$9,334,124         + ?       8         \$2.97	(length of service line, <u>be</u> boundary, that is the resp of <b>10 has been applied</b> psi \$/Year \$/1000 gallons (US)	ionsibility of the utility)
Are customer meters typically located at the curbstop or property line? <u>Average</u> length of customer service line has been se Average length of customer service line has been se Average operating pressure: COST DATA Total annual cost of operating water system: Customer retail unit cost (applied to Apparent Losses): Variable production cost (applied to Real Losses): WATER AUDIT DATA VALIDITY SCORE:	?       34         Yes         et to zero and a data grading score         + ?       7         65.0         + ?       10         \$9,334,124         + ?       8         \$2.97	(length of service line, <u>be</u> boundary, that is the resp of <b>10 has been applied</b> psi \$/Year \$/1000 gallons (US) \$/acre-ft Use Custom	ionsibility of the utility)
Are customer meters typically located at the curbstop or property line? <u>Average</u> length of customer service line has been se Average length of customer service line has been se Average operating pressure: COST DATA Total annual cost of operating water system: Customer retail unit cost (applied to Apparent Losses): Variable production cost (applied to Real Losses): WATER AUDIT DATA VALIDITY SCORE:	?       34         Yes         et to zero and a data grading score         + ?       7         65.0         + ?       7         * ?       65.0         + ?       8         \$9,334,124         + ?       8         \$2.97         + ?       5         \$432.00	(length of service line, <u>be</u> boundary, that is the resp of <b>10 has been applied</b> psi \$/Year \$/1000 gallons (US) \$/acre-ft Use Custor	er Retail Unit Cost to value real losses
Are customer meters typically located at the curbstop or property line? <u>Average</u> length of customer service line has been so Average operating pressure: COST DATA Total annual cost of operating water system: Customer retail unit cost (applied to Apparent Losses): Variable production cost (applied to Real Losses): WATER AUDIT DATA VALIDITY SCORE:	?       34         Yes         et to zero and a data grading score         + ?       7         65.0         + ?       7         * ?       65.0         + ?       8         \$9,334,124         + ?       8         \$2.97         + ?       5         \$432.00	(length of service line, <u>be</u> boundary, that is the resp of <b>10 has been applied</b> psi \$/Year \$/1000 gallons (US) \$/acre-ft Use Custor	er Retail Unit Cost to value real losses
Are customer meters typically located at the curbstop or property line? <u>Average</u> length of customer service line has been so Average operating pressure: COST DATA Total annual cost of operating water system: Customer retail unit cost (applied to Apparent Losses): Variable production cost (applied to Real Losses): WATER AUDIT DATA VALIDITY SCORE: ** A weighted scale for the components of consum	?       34         Yes         et to zero and a data grading score         + ?       7         65.0         + ?       7         • ?       7         • ?       7         • ?       7         • * ?       7         • * ?       7         • * ?       5         • * ?       \$432.00         ** YOUR SCORE IS: 67 out of 100 **         ** tyption and water loss is included in the categories	(length of service line, <u>be</u> boundary, that is the resp of <b>10 has been applied</b> psi \$/Year \$/1000 gallons (US) \$/acre-ft Use Custor	er Retail Unit Cost to value real losses
Are customer meters typically located at the curbstop or property line? <u>Average</u> length of customer service line has been so Average operating pressure: COST DATA Total annual cost of operating water system: Customer retail unit cost (applied to Apparent Losses): Variable production cost (applied to Real Losses): Variable production cost (applied to Real Losses): WATER AUDIT DATA VALIDITY SCORE: ** A weighted scale for the components of consum PRIORITY AREAS FOR ATTENTION:	?       34         Yes         et to zero and a data grading score         + ?       7         65.0         + ?       7         • ?       7         • ?       7         • ?       7         • * ?       7         • * ?       7         • * ?       5         • * ?       \$432.00         ** YOUR SCORE IS: 67 out of 100 **         ** tyption and water loss is included in the categories	(length of service line, <u>be</u> boundary, that is the resp of <b>10 has been applied</b> psi \$/Year \$/1000 gallons (US) \$/acre-ft Use Custor	er Retail Unit Cost to value real losses
Are customer meters typically located at the curbstop or property line? <u>Average</u> length of customer service line has been so Average operating pressure: COST DATA Total annual cost of operating water system: Customer retail unit cost (applied to Apparent Losses): Variable production cost (applied to Real Losses): Variable production cost (applied to Real Losses): WATER AUDIT DATA VALIDITY SCORE: ** A weighted scale for the components of consum PRIORITY AREAS FOR ATTENTION: Based on the information provided, audit accuracy can be improved by addressin	?       34         Yes         et to zero and a data grading score         + ?       7         65.0         + ?       7         • ?       7         • ?       7         • ?       7         • * ?       7         • * ?       7         • * ?       5         • * ?       \$432.00         ** YOUR SCORE IS: 67 out of 100 **         ** tyption and water loss is included in the categories	(length of service line, <u>be</u> boundary, that is the resp of <b>10 has been applied</b> psi \$/Year \$/1000 gallons (US) \$/acre-ft Use Custor	er Retail Unit Cost to value real losses
Are customer meters typically located at the curbstop or property line? <u>Average</u> length of customer service line has been so Average operating pressure: COST DATA Total annual cost of operating water system: Customer retail unit cost (applied to Apparent Losses): Variable production cost (applied to Real Losses): Variable production cost (applied to Real Losses): WATER AUDIT DATA VALIDITY SCORE: ** A weighted scale for the components of consum PRIORITY AREAS FOR ATTENTION: Based on the information provided, audit accuracy can be improved by addressir 1: Volume from own sources	?       34         Yes         et to zero and a data grading score         + ?       7         65.0         + ?       7         • ?       7         • ?       7         • ?       7         • * ?       7         • * ?       7         • * ?       5         • * ?       \$432.00         ** YOUR SCORE IS: 67 out of 100 **         ** tyption and water loss is included in the categories	(length of service line, <u>be</u> boundary, that is the resp of <b>10 has been applied</b> psi \$/Year \$/1000 gallons (US) \$/acre-ft Use Custor	er Retail Unit Cost to value real losses

		ee Water Audit S orting Workshee		WAS American Water Works A	
	dit Report for: Mission Sp eporting Year: 2017	rings Water District (3: 1/2017 - 12/2017	310008)		
Please enter data in the white cells below. Where available, me input data by grading each component (n/a or 1-10) using the d	rop-down list to the left of the ir	nput cell. Hover the mouse	over the cell to obtain a descrip		
		be entered as: ACRE-I	FEET PER YEAR		
To select the correct data grading the utility meets or excee	) for each input, determine tl eds <u>all</u> criteria for that grade			Master Meter and Supply Error Adjustments	_
WATER SUPPLIED	_ *	•	in column 'E' and 'J'		5
	n own sources: + ? 7	7,811.740			acre-ft/yr
	/ater imported: + ? n/a				acre-ft/yr
V	/ater exported: + ? n/a	a 0.000	acre-ft/yr + ?		acre-ft/yr
		7 944 740		Enter negative % or value for under-registra	
WATE	R SUPPLIED:	7,811.740	acre-π/yr	Enter positive % or value for over-registratio	n
AUTHORIZED CONSUMPTION			,	Click here: ?	
	Billed metered: + ? 7	6,912.000		for help using option buttons below	
	ed unmetered: + ? n/a billed metered: + ? 8			Pcnt: Value:	
	ed unmetered: + ? 8	1.464			acre-ft/yr
0.12.1				<u> </u>	
AUTHORIZED CO	NSUMPTION: ?	6,914.093	acre-ft/yr	Use buttons to select percentage of water supplied	
		007.047		— <u>OR</u> value	
WATER LOSSES (Water Supplied - Authorized Consu	mption)	897.647	acre-tt/yr		
Apparent Losses				Pcnt: Value:	
	d consumption: + ?		acre-ft/yr	0.25% 🔍 🔿	acre-ft/yr
Default option selected for una		grading of 5 is applied	but not displayed		
	g inaccuracies: + ? 6		acre-ft/yr		acre-ft/yr
•	andling errors: + ?		acre-ft/yr		acre-ft/yr
Default option selected for S	· · · · · · · · · · · · · · · · · · ·		acre-ft/yr	u	
Ahh	arent Losses: ?	100.034	acre-it/yi		
Real Losses (Current Annual Real Losses or CARL)					
Real Losses = Water Losses - App	arent Losses: ?	791.013	acre-ft/yr		
Real Losses = Water Losses - App			-		
Real Losses = Water Losses - App	arent Losses: ? TER LOSSES:	791.013 897.647	-		
Real Losses = Water Losses - App WA <u>NON-REVENUE WATER</u> NON-REVE			acre-ft/yr		
Real Losses = Water Losses - App WA <u>NON-REVENUE WATER</u>	TER LOSSES:	897.647	acre-ft/yr		
Real Losses = Water Losses - App         WA         NON-REVENUE WATER         NON-REVE         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA	TER LOSSES:	897.647 899.740	acre-ft/yr acre-ft/yr		
Real Losses = Water Losses - App         WA         NON-REVENUE WATER         NON-REVE         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA	TER LOSSES:	897.647 899.740 390.0	acre-ft/yr acre-ft/yr		
Real Losses = Water Losses - App         WA         NON-REVENUE WATER         NON-REVE         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Lee         Number of active AND inactive service	TER LOSSES:	897.647 899.740 390.0	acre-fl/yr acre-fl/yr miles		
Real Losses = Water Losses - App         WA         NON-REVENUE WATER         Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Le         Number of active AND inactive service Service comp	TER LOSSES:         INUE WATER:       ?         ength of mains:       +       ?         e connections:       +       ?         rection density:       ?	897.647 899.740 390.0 13,101 34	acre-ft/yr miles conn./mile main		
Real Losses = Water Losses - App         WA         NON-REVENUE WATER         NON-REVE         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Le         Number of active AND inactive service Service conn         Are customer meters typically located at the curbstop of	TER LOSSES:         INUE WATER:       ?         ength of mains:       +       ?         e connections:       +       ?         rection density:       ?         r property line?	897.647 899.740 390.0 13,101	acre-ft/yr acre-ft/yr miles conn./mile main (length of service lir	ne, <u>beyond</u> the property	
Real Losses = Water Losses - App         WA         NON-REVENUE WATER         Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Le         Number of active AND inactive service Service comp	TER LOSSES:         ENUE WATER:       ?         ength of mains:       +       ?         e connections:       +       ?         rection density:       ?         r property line?       er service line:       *	897.647 899.740 390.0 13,101 34 Yes	acre-ft/yr acre-ft/yr miles conn./mile main (length of service lir boundary, that is th	ne, <u>beyond</u> the property e responsibility of the utility)	
Real Losses = Water Losses - App         WA         NON-REVE         Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Lee         Number of active AND inactive service         Service conn         Are customer meters typically located at the curbstop of Average length of customer service         Average length of customer service	TER LOSSES:         ENUE WATER:       ?         ength of mains:       +       ?         e connections:       +       ?         rection density:       ?         r property line?       er service line:       *	897.647 899.740 390.0 13,101 34 Yes a data grading score	acre-ft/yr acre-ft/yr miles conn./mile main (length of service lir boundary, that is th e of 10 has been applied		
Real Losses = Water Losses - App         WA         NON-REVE         Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Lee         Number of active AND inactive service         Service conn         Are customer meters typically located at the curbstop of Average length of customer service         Average length of customer service	TER LOSSES:         INUE WATER:       ?         ength of mains:       +       ?         e connections:       +       ?         rection density:       ?         r property line?         er service line:       +         ine has been set to zero all	897.647 899.740 390.0 13,101 34 Yes a data grading score	acre-ft/yr acre-ft/yr miles conn./mile main (length of service lir boundary, that is th e of 10 has been applied		
Real Losses = Water Losses - App         WA         NON-REVE         Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Lee         Number of active AND inactive service         Service conn         Are customer meters typically located at the curbstop of Average length of customer service         Average length of customer service	TER LOSSES:         INUE WATER:       ?         ength of mains:       +       ?         e connections:       +       ?         rection density:       ?         r property line?         er service line:       +         ine has been set to zero all	897.647 899.740 390.0 13,101 34 Yes a data grading score	acre-ft/yr acre-ft/yr miles conn./mile main (length of service lir boundary, that is th e of 10 has been applied		
Real Losses = Water Losses - App         WA         NON-REVENUE WATER         NON-REVE         a Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Le         Number of active AND inactive service         Service conn         Are customer meters typically located at the curbstop of Average length of customer service I Average length of customer service I Average operation         Average length of customer service I         Average length of customer service I </td <td>TER LOSSES:         INUE WATER:         ength of mains:         +         e connections:         +         r property line?         er service line:         +         ine has been set to zero an ating pressure:         +         2</td> <td>897.647 899.740 390.0 13,101 34 Ves addata grading score 65.0</td> <td>acre-ft/yr acre-ft/yr miles conn./mile main (length of service lir boundary, that is the of 10 has been applied psi</td> <td></td> <td></td>	TER LOSSES:         INUE WATER:         ength of mains:         +         e connections:         +         r property line?         er service line:         +         ine has been set to zero an ating pressure:         +         2	897.647 899.740 390.0 13,101 34 Ves addata grading score 65.0	acre-ft/yr acre-ft/yr miles conn./mile main (length of service lir boundary, that is the of 10 has been applied psi		
Real Losses = Water Losses - App         WA         NON-REVENUE WATER         NON-REVE         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Le         Number of active AND inactive service         Service conn         Are customer meters typically located at the curbstop of Average length of customer service I Average length of customer service I	TER LOSSES:         ENUE WATER:       ?         ength of mains:       +       ?         e connections:       +       ?         rection density:       ?         r property line?         er service line:       +       ?         ine has been set to zero at ating pressure:       +       ?         water system:       +       ?       10	897.647 899.740 390.0 13,101 34 Yes nd a data grading score 65.0 \$9,927,696	acre-ft/yr acre-ft/yr miles conn./mile main (length of service lir boundary, that is the of 10 has been applied psi		
Real Losses = Water Losses - App         WA         NON-REVENUE WATER         NON-REVE         # Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Let         Number of active AND inactive service         Service conn         Are customer meters typically located at the curbstop of         Average length of customer service I	TER LOSSES:         ENUE WATER:       ?         ength of mains:       +       ?         e connections:       +       ?         rection density:       ?         r property line?       .         er service line:       +       ?         ine has been set to zero at ating pressure:       +       ?         water system:       +       ?       ?         water system:       +       ?       10         parent Losses):       +       ?       8	897.647 899.740 390.0 13,101 34 Yes nd a data grading score 65.0 \$9,927,696 \$2.97	acre-ft/yr acre-ft/yr miles conn./mile main (length of service lir boundary, that is the of 10 has been applied psi \$/Year \$/1000 gallons (US)		
Real Losses = Water Losses - App         WA         NON-REVENUE WATER         NON-REVE         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Le         Number of active AND inactive service         Service conn         Are customer meters typically located at the curbstop of         Average length of customer         Average length of customer service I         COST DATA         Total annual cost of operating         Customer retail unit cost (applied to Applied to Appli	TER LOSSES:         ENUE WATER:       ?         ength of mains:       +       ?         e connections:       +       ?         rection density:       ?         r property line?       .         er service line:       +       ?         ine has been set to zero at ating pressure:       +       ?         water system:       +       ?       ?         water system:       +       ?       10         parent Losses):       +       ?       8	897.647 899.740 390.0 13,101 34 Yes nd a data grading score 65.0 \$9,927,696 \$2.97	acre-ft/yr acre-ft/yr miles conn./mile main (length of service lir boundary, that is the of 10 has been applied psi \$/Year \$/1000 gallons (US)	e responsibility of the utility)	
Real Losses = Water Losses - App         WA         NON-REVENUE WATER         NON-REVE         a Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Let         Number of active AND inactive service         SYSTEM DATA         Let         Number of active AND inactive service         Number of active AND inactive service         Are customer meters typically located at the curbstop on         Average length of customer service I         Average length of customer retail unit cost of operating         Customer retail unit cost (applied to App         Variable production cost (applied to App	TER LOSSES:         ENUE WATER:       ?         ength of mains:       +       ?         e connections:       +       ?         rection density:       ?         r property line?       .         er service line:       +       ?         ine has been set to zero at ating pressure:       +       ?         water system:       +       ?       ?         water system:       +       ?       10         parent Losses):       +       ?       8	897.647 899.740 390.0 13,101 34 Yes nd a data grading score 65.0 \$9,927,696 \$2.97	acre-ft/yr acre-ft/yr miles conn./mile main (length of service lir boundary, that is the of 10 has been applied psi \$/Year \$/1000 gallons (US)	e responsibility of the utility)	
Real Losses = Water Losses - App         WA         NON-REVENUE WATER         NON-REVE         = Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Le         Number of active AND inactive service         Service conn         Are customer meters typically located at the curbstop of         Average length of customer         Average length of customer service I         COST DATA         Total annual cost of operating         Customer retail unit cost (applied to Applied to Appli	TER LOSSES:         ENUE WATER:       ?         ength of mains:       +       ?         e connections:       +       ?         rection density:       ?         r property line?         er service line:       +       ?         ine has been set to zero at ating pressure:       +       ?         water system:       +       ?       ?         water system:       +       ?       8         Real Losses):       +       ?       6	897.647 899.740 390.0 13,101 34 Yes nd a data grading score 65.0 \$9,927,696 \$2.97 \$432.00	acre-ft/yr acre-ft/yr miles conn./mile main (length of service lir boundary, that is th of 10 has been applied psi \$/Year \$/1000 gallons (US) \$/acre-ft Use C	e responsibility of the utility)	
Real Losses = Water Losses - App         WA         NON-REVENUE WATER         NON-REVE         a Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Let Colspan="2">Let Colspan="2">Colspan="2"         WATER AUDIT DATA VALIDITY SCORE:       Colspan="2"         WATER AUDIT DATA VALIDITY SCORE:       Colspan="2"	TER LOSSES:         INUE WATER:       ?         ength of mains:       +       ?         e connections:       +       ?         rection density:       ?       ?         r property line?       er service line:       +       ?         ine has been set to zero an ating pressure:       +       ?       ?         water system:       +       ?       ?         water system:       +       ?       8         r Real Losses):       +       ?       6	897.647 899.740 390.0 13,101 34 Yes nd a data grading score 65.0 \$9,927,696 \$2.97 \$432.00 DRE IS: 71 out of 100 **	acre-ft/yr acre-ft/yr miles conn./mile main (length of service lir boundary, that is the of 10 has been applied psi \$/Year \$/1000 gallons (US) \$/acre-ft Use C	e responsibility of the utility)	
Real Losses = Water Losses - App         WA         NON-REVENUE WATER         NON-REVE         a Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Let         Number of active AND inactive service         SYSTEM DATA         Let         Number of active AND inactive service         Number of active AND inactive service construction         Are customer meters typically located at the curbstop on         Average length of customer service I         Average length of customer retail unit cost of operating         Customer retail unit cost (applied to App         Variable production cost (applied to App	TER LOSSES:         INUE WATER:       ?         ength of mains:       +       ?         e connections:       +       ?         rection density:       ?       ?         r property line?       er service line:       +       ?         ine has been set to zero an ating pressure:       +       ?       ?         water system:       +       ?       ?         water system:       +       ?       8         r Real Losses):       +       ?       6	897.647 899.740 390.0 13,101 34 Yes nd a data grading score 65.0 \$9,927,696 \$2.97 \$432.00 DRE IS: 71 out of 100 **	acre-ft/yr acre-ft/yr miles conn./mile main (length of service lir boundary, that is the of 10 has been applied psi \$/Year \$/1000 gallons (US) \$/acre-ft Use C	e responsibility of the utility)	
Real Losses = Water Losses - App         WA         NON-REVENUE WATER         NON-REVE         a Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Let Colspan="2">Let Colspan="2">Colspan="2"         WATER AUDIT DATA VALIDITY SCORE:       Colspan="2"         WATER AUDIT DATA VALIDITY SCORE:       Colspan="2"	TER LOSSES:         INUE WATER:       ?         ength of mains:       +       ?         e connections:       +       ?         rection density:       ?       ?         r property line?       er service line:       +       ?         ine has been set to zero an ating pressure:       +       ?       ?         water system:       +       ?       ?         water system:       +       ?       8         r Real Losses):       +       ?       6	897.647 899.740 390.0 13,101 34 Yes nd a data grading score 65.0 \$9,927,696 \$2.97 \$432.00 DRE IS: 71 out of 100 **	acre-ft/yr acre-ft/yr miles conn./mile main (length of service lir boundary, that is the of 10 has been applied psi \$/Year \$/1000 gallons (US) \$/acre-ft Use C	e responsibility of the utility)	
Real Losses = Water Losses - App         WA         NON-REVENUE WATER         NON-REVE         a Water Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Letter Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Letter Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Letter Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Letter Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Letter Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Letter Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Letter Losses + Unbilled Metered + Unbilled Unmetered         System Data         Letter Cosses + Unbilled Metered + Unbilled Londowskip         Average length of customer Service I         Average length of customer Service I         Cost DATA         Total annual cost of operating Customer retail unit cost (applied to App Variable production cost (applied to Cost)         WATER	TER LOSSES:         ENUE WATER:       ?         ength of mains:       +       ?         e connections:       +       ?         r property line?       ?         er service line:       +       ?         ine has been set to zero an ating pressure:       +       ?         water system:       +       ?       ?	897.647           899.740           390.0           13,101           34           Yes           1           65.0           \$9,927,696           \$2.97           \$432.00           DRE IS: 71 out of 100 **           ter loss is included in the car	acre-ft/yr acre-ft/yr miles conn./mile main (length of service lir boundary, that is the of 10 has been applied psi \$/Year \$/1000 gallons (US) \$/acre-ft Use C	e responsibility of the utility)	
Real Losses = Water Losses - App         WATER         NON-REVENUE WATER         NON-REVENUE WATER         EWater Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Le         Number of active AND inactive service         SYSTEM DATA         Le         Number of active AND inactive service construction         Average length of customer service I         COST DATA         Total annual cost of operating         Customer retail unit cost (applied to App)         Variable production cost (applied to App)         Variable production cost (applied to App)         Variable production cost (applied to App)         A weighted scale for the compone         A weighted scale for the compone	TER LOSSES:         ENUE WATER:       ?         ength of mains:       +       ?         e connections:       +       ?         r property line?       ?         er service line:       +       ?         ine has been set to zero an ating pressure:       +       ?         water system:       +       ?       ?	897.647           899.740           390.0           13,101           34           Yes           1           65.0           \$9,927,696           \$2.97           \$432.00           DRE IS: 71 out of 100 **           ter loss is included in the car	acre-ft/yr acre-ft/yr miles conn./mile main (length of service lir boundary, that is the of 10 has been applied psi \$/Year \$/1000 gallons (US) \$/acre-ft Use C	e responsibility of the utility)	
Real Losses = Water Losses - App         WA         NON-REVENUE WATER         NON-REVENUE WATER         NON-REVENUE WATER         SYSTEM DATA         Letter Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Letter Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Letter Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Letter Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Letter Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Letter Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Are customer meters typically located at the curbstop or Average length of customer service I Average operating Customer retail unit cost of operating Customer retail unit cost (applied to App Variable production cost (applied to App MATER AUDIT DATA VALIDITY SCORE:         A weighted scale for the compo PRIORITY AREAS FOR ATTENTION: Based on the information provided, audit accuracy can be impr 1: Volume from own sources	TER LOSSES:         ENUE WATER:       ?         ength of mains:       +       ?         e connections:       +       ?         r property line?       ?         er service line:       +       ?         ine has been set to zero an ating pressure:       +       ?         water system:       +       ?       ?	897.647           899.740           390.0           13,101           34           Yes           1           65.0           \$9,927,696           \$2.97           \$432.00           DRE IS: 71 out of 100 **           ter loss is included in the car	acre-ft/yr acre-ft/yr miles conn./mile main (length of service lir boundary, that is the of 10 has been applied psi \$/Year \$/1000 gallons (US) \$/acre-ft Use C	e responsibility of the utility)	
Real Losses = Water Losses - App         WAT         NON-REVENUE WATER         NON-REVE         EWater Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Let Constructive service I         SYSTEM DATA         Let Construct a colspan="2">Let Construct a colspan="2">Constructive service I         Average length of customer service I         Average lengt	TER LOSSES:         ENUE WATER:       ?         ength of mains:       +       ?         e connections:       +       ?         r property line?       ?         er service line:       +       ?         ine has been set to zero an ating pressure:       +       ?         water system:       +       ?       ?	897.647           899.740           390.0           13,101           34           Yes           1           65.0           \$9,927,696           \$2.97           \$432.00           DRE IS: 71 out of 100 **           ter loss is included in the car	acre-ft/yr acre-ft/yr miles conn./mile main (length of service lir boundary, that is the of 10 has been applied psi \$/Year \$/1000 gallons (US) \$/acre-ft Use C	e responsibility of the utility)	
Real Losses = Water Losses - App         WAT         NON-REVENUE WATER         NON-REVENUE WATER         NON-REVENUE WATER         SYSTEM DATA         Letter Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Letter Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Letter Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Letter Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Letter Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Letter Losses + Unbilled Metered + Unbilled Unmetered         SYSTEM DATA         Are customer meters typically located at the curbstop or Average length of customer service I Average operating Customer retail unit cost of operating Customer retail unit cost (applied to App Variable production cost (applied to App MATER AUDIT DATA VALIDITY SCORE:         A weighted scale for the compo PRIORITY AREAS FOR ATTENTION: Based on the information provided, audit accuracy can be impr         1: Volume from own sources	TER LOSSES:         ENUE WATER:       ?         ength of mains:       +       ?         e connections:       +       ?         r property line?       ?         er service line:       +       ?         ine has been set to zero an ating pressure:       +       ?         water system:       +       ?       ?	897.647           899.740           390.0           13,101           34           Yes           1           65.0           \$9,927,696           \$2.97           \$432.00           DRE IS: 71 out of 100 **           ter loss is included in the car	acre-ft/yr acre-ft/yr miles conn./mile main (length of service lir boundary, that is the of 10 has been applied psi \$/Year \$/1000 gallons (US) \$/acre-ft Use C	e responsibility of the utility)	

	ree Water Audit S porting Workshe		WAS v5 American Water Works As	
?       Click to access definition         *       Click to add a comment         Water Audit Report for:       Mission S         Reporting Year:       2018	prings Water District (3 1/2018 - 12/2018	310008)		
Please enter data in the white cells below. Where available, metered values should be used; input data by grading each component (n/a or 1-10) using the drop-down list to the left of the				
	to be entered as: ACRE-	FEET PER YEAR		
To select the correct data grading for each input, determine the utility meets or exceeds <u>all</u> criteria for that grad			Master Mater and Supply Free Adjustments	
WATER SUPPLIED	•	in column 'E' and 'J'	Master Meter and Supply Error Adjustments Pcnt: Value:	
	7 7,875.220			cre-ft/yr
	n/a 0.000	• • ===		cre-ft/yr
Water exported: + ? r	n/a 0.000	acre-ft/yr + ?		cre-ft/yr
	7 777 005		Enter negative % or value for under-registration	
WATER SUPPLIED:	7,777.995	acre-π/yr	Enter positive % or value for over-registration	1
AUTHORIZED CONSUMPTION		T	Click here: ?	
Billed metered: + ?	7 6,950.165		for help using option buttons below	
	n/a 0.000 9 0.962	1 -	Pcnt: Value:	
	8 3.391	· · ·		cre-ft/yr
			<u> </u>	
AUTHORIZED CONSUMPTION:	6,954.518	acre-ft/yr	Use buttons to select percentage of water supplied	
	000 477	I au	– <u>OR</u> value	
WATER LOSSES (Water Supplied - Authorized Consumption)	023.4//	acre-ft/yr		
Apparent Losses	40.445	I au	Pcnt: Value:	
Unauthorized consumption: + ?		acre-ft/yr	0.25% O	cre-ft/yr
Default option selected for unauthorized consumption -		1		
Custom in the contraction of the custom is a second s		acre-ft/yr acre-ft/yr		cre-ft/yr
Systematic data handling errors: + ? Default option selected for Systematic data handling		· · ·		cre-ft/yr
Apparent Losses:		acre-ft/yr	·	
Apparent Losses.	107.004			
Real Losses (Current Annual Real Losses or CARL) Real Losses = Water Losses - Apparent Losses:	716.443	acre-ft/yr		
WATER LOSSES:	823.477	acre-ft/yr		
		1 3		
NON-REVENUE WATER ? ? = Water Losses + Unbilled Metered + Unbilled Unmetered ?	827.830	acre-ft/yr		
SYSTEM DATA				
Length of mains: + ?	8 282.4	miles		
Number of <u>active AND inactive</u> service connections: + ?	8 13,215			
Service connection density:	47	conn./mile main		
Are customer meters typically located at the curbstop or property line?	Yes			
Average length of customer service line: + ?	100		e, <u>beyond</u> the property e responsibility of the utility)	
Average length of customer service line has been set to zero	and a data grading score		, , , , , , , , , , , , , , , , , , , ,	
Average operating pressure: + ?	7 65.0	psi		
COST DATA				
Total annual cost of operating water system: 👥 ?	10 \$10,264,350	\$/Year		
Customer retail unit cost (applied to Apparent Losses): + ?	9 \$2.38	\$/100 cubic feet (ccf)		
Variable production cost (applied to Real Losses): + ?	8 \$600.87	\$/acre-ft Use Cu	ustomer Retail Unit Cost to value real losses	
WATER AUDIT DATA VALIDITY SCORE:				
*** VOID S	CORE IS: 74 out of 100 **	**		
A weighted scale for the components of consumption and w	ater loss is included in the ca	aculation of the Water Audit Dat	ta validity Score	
PRIORITY AREAS FOR ATTENTION:				
Based on the information provided, audit accuracy can be improved by addressing the follow	ving components:			
1: Volume from own sources				
2: Billed metered				
3: Customer metering inaccuracies				

	ree Water Audit S porting Workshe		WAS v5.0 American Water Works Associatio
?       Click to access definition         *       Click to add a comment         Water Audit Report for:       Mission S         Reporting Year:       2019	prings Water District (3 1/2019 - 12/2019	310008)	
Please enter data in the white cells below. Where available, metered values should be used; input data by grading each component (n/a or 1-10) using the drop-down list to the left of the			
All volumes t	to be entered as: ACRE-	FEET PER YEAR	
To select the correct data grading for each input, determine the utility meets or exceeds <u>all</u> criteria for that grad			Master Meter and Supply Error Adjustments
WATER SUPPLIED	•	in column 'E' and 'J'	Master Meter and Supply Error Adjustments Pcnt: Value:
	7 7,539.140		3 1.00% • O acre-ft/yr
	n/a 0.000		acre-ft/yr
Water exported: + ? r	n/a 0.000	acre-ft/yr + ?	acre-ft/yr
	7 464 405		Enter negative % or value for under-registration
WATER SUPPLIED:	7,464.495	acre-n/yr	Enter positive % or value for over-registration
		T	Click here: ?
Billed metered: + ?	7 6,466.254	• •	for help using option buttons below
	n/a 0.000 9 21.800		Pcnt: Value:
	8 3.198	· · · ·	3.198 acre-ft/yr
	0.100		<u> </u>
AUTHORIZED CONSUMPTION: ?	6,491.252	acre-ft/yr	Use buttons to select percentage of water supplied
WATER LOSSES (Motor Cumplied Authorized Consumption)	072 242		- <u>OR</u> value
WATER LOSSES (Water Supplied - Authorized Consumption)	973.243	acre-ft/yr	
Apparent Losses	40.004	I au	Pont: Value:
Unauthorized consumption: + ?		acre-ft/yr	0.25% O acre-ft/yr
Default option selected for unauthorized consumption -		r i i	
outoning indocardeloo.		acre-ft/yr	1.00% • • • acre-ft/yr
Systematic data handling errors: + ? Default option selected for Systematic data handling		acre-ft/yr	0.25%  C acre-ft/yr
Apparent Losses:		acre-ft/yr	
Apparent Losses.	100.000		
Real Losses (Current Annual Real Losses or CARL) Real Losses = Water Losses - Apparent Losses:	872.880	acre-ft/yr	
WATER LOSSES:	973.243	acre-ft/yr	
NON-REVENUE WATER ? ? = Water Losses + Unbilled Metered + Unbilled Unmetered ?	998.241	acre-ft/yr	
SYSTEM DATA			
Length of mains: + ?	8 303.4	miles	
Number of <u>active AND inactive</u> service connections: + ?	8 12,783		
Service connection density:	42	conn./mile main	
Are customer meters typically located at the curbstop or property line?	Yes		
Are customer meters typically located at the curstop of property line:			e, <u>beyond</u> the property responsibility of the utility)
Average length of customer service line has been set to zero		e of 10 has been applied	
Average operating pressure: + ?	7 65.0	psi	
COST DATA			
Total annual cost of operating water system: + ?	10 \$10,726,421	\$/Year	
Customer retail unit cost (applied to Apparent Losses): + ?	9 \$2.87	\$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses): + ?	8 \$590.64	\$/acre-ft Use Cu	stomer Retail Unit Cost to value real losses
WATER AUDIT DATA VALIDITY SCORE:			
*** YOUR SI	CORE IS: 74 out of 100 **	*	
A weighted scale for the components of consumption and w	ater loss is included in the ca	aculation of the Water Audit Data	a validity Score
PRIORITY AREAS FOR ATTENTION:			
Based on the information provided, audit accuracy can be improved by addressing the follow	ving components:		
1: Volume from own sources			
2: Billed metered			
3: Customer metering inaccuracies			

		ee Water Audit S porting Workshee		WAS v5.0 American Water Works Association
<ul> <li>Click to access definition</li> <li>Click to add a comment</li> </ul>	Water Audit Report for: Mission S Reporting Year: 2019	prings Water District (3 1/2019 - 12/2019	310081)	
	below. Where available, metered values should be used; ant (n/a or 1-10) using the drop-down list to the left of the			
		o be entered as: ACRE-	FEET PER YEAR	
	t the correct data grading for each input, determine the utility meets or exceeds <u>all</u> criteria for that grade	e and all grades below it.		Master Meter and Supply Error Adjustments
WATER SUPPLIED	Volume from own sources: + ?		in column 'E' and 'J'>	
			acre-ft/yr + ? acre-ft/yr + ?	3 1.00% • acre-ft/yr
			acre-ft/yr + ?	acre-ft/yr
	WATER SUPPLIED:	62.990	acre-ft/yr	Enter negative % or value for under-registration Enter positive % or value for over-registration
AUTHORIZED CONSUMPTION			-	
AUTHORIZED CONSUMPTION	Billed metered: + ?	7 49,150	acre-ft/yr	Click here: 2
			acre-ft/yr	buttons below
			acre-ft/yr	Pcnt: Value:
	Unbilled unmetered: + ?	8 0.044	acre-ft/yr	0.044 acre-ft/yr
	AUTHORIZED CONSUMPTION: ?	49.314	acre-ft/yr	Use buttons to select percentage of water supplied
WATER LOSSES (Water Suppl	ied - Authorized Consumption)	13.676	acre-ft/yr	OR value
Apparent Losses			· [	Pcnt: Value:
	Unauthorized consumption: + ?		acre-ft/yr	0.25% O acre-ft/yr
Default o	option selected for unauthorized consumption -		r	
	Customer metering inaccuracies: + ? Systematic data handling errors: + ?		acre-ft/yr acre-ft/yr	1.00% • · · acre-ft/yr 0.25% • · · acre-ft/yr
Defau	It option selected for Systematic data handling		• • • • • • • • • • • • • • • • • • •	
	Apparent Losses: ?		acre-ft/yr	
Real Losses (Current Annual F	Real Losses or CARL)			
	s = Water Losses - Apparent Losses: ?	12.898	acre-ft/yr	
	WATER LOSSES:	13.676	acre-ft/yr	
NON-REVENUE WATER	NON-REVENUE WATER:	13.840	acre-ft/yr	
= Water Losses + Unbilled Metered	+ Unbilled Unmetered			
SYSTEM DATA			r	
Number of a		8 7.3 8 174	miles	
	Service connection density: ?		conn./mile main	
	ocated at the curbstop or property line?	Yes		
	werage length of customer service line: + ? h of customer service line has been set to zero a	and a data grading score		responsibility of the utility)
		7 60.0		
COST DATA				
Total	annual cost of operating water system: + ?	0 \$158,036	\$/Year	
Customer retail	unit cost (applied to Apparent Losses):	9 \$2.87	\$/100 cubic feet (ccf)	
	roduction cost (applied to Real Losses): * ? Retail costs are less than (or equal to) produ	8 \$1,638.27 Iction costs; please review		tomer Retail Unit Cost to value real losses
WATER AUDIT DATA VALIDITY S	CORE:			
	*** YOUR SO	CORE IS: 74 out of 100 **	*	
	reighted scale for the components of consumption and w	ater loss is included in the ca	Iculation of the Water Audit Data	Validity Score
PRIORITY AREAS FOR ATTENTIO				
	audit accuracy can be improved by addressing the follow	ing components:		
1: Volume from own sources				
2: Billed metered				
3: Customer metering inaccura	cies			

		ee Water Audit S porting Workshee		WAS v5.0 American Water Works Association
<ul> <li>Click to access definition</li> <li>+ Click to add a comment</li> </ul>	Water Audit Report for: Mission S Reporting Year: 2019	prings Water District (3	310078)	
	below. Where available, metered values should be used; ent (n/a or 1-10) using the drop-down list to the left of the			
	All volumes t	o be entered as: ACRE-	FEET PER YEAR	
	t the correct data grading for each input, determine the utility meets or exceeds <u>all</u> criteria for that grad	e and all grades below it.		Master Meter and Supply Error Adjustments
WATER SUPPLIED			in column 'E' and 'J'>	
			acre-ft/yr + ? acre-ft/yr + ?	3 1.00% • acre-ft/yr • • · acre-ft/yr
			acre-ft/yr + ?	acre-ft/yr
	WATER SUPPLIED:	88.772	7	Enter negative % or value for under-registration Enter positive % or value for over-registration
AUTHORIZED CONSUMPTION			<u> </u>	
AUTHORIZED CONSUMPTION	Billed metered: + ?	7 73.530	acre-ft/yr	Click here: ? for help using option
			acre-ft/yr	buttons below
			acre-ft/yr	Pcnt: Value:
	Unbilled unmetered: + ?	8 0.064	acre-ft/yr	0.064 acre-ft/yr
	AUTHORIZED CONSUMPTION: ?	73.653	acre-ft/yr	Use buttons to select percentage of water supplied
WATER LOSSES (Water Suppl	ied - Authorized Consumption)	15.119	acre-ft/yr	OR value
Apparent Losses			•	Pcnt: Value:
	Unauthorized consumption: + ?		acre-ft/yr	0.25% O acre-ft/yr
Default o	option selected for unauthorized consumption -		l but not displayed	
	Cuctomic motoring macculation		acre-ft/yr	1.00% • • • acre-ft/yr
Defa	Systematic data handling errors: + ? It option selected for Systematic data handling		acre-ft/yr	0.25% • C acre-ft/yr
Donat	Apparent Losses: ?		acre-ft/yr	
Real Losses (Current Annual F Real Losse	Real Losses or CARL) s = Water Losses - Apparent Losses: ?	13.970	acre-ft/yr	
	WATER LOSSES:	15.119	ι - τ	
NON-REVENUE WATER			•	
= Water Losses + Unbilled Metered	NON-REVENUE WATER: ?	15.242	acre-ft/yr	
SYSTEM DATA	+ Onblied Onnetered			
	Length of mains: + ?	8 10.4	miles	
Number of <u>a</u>		8 256	mico	
	Service connection density: ?	25	conn./mile main	
	ocated at the curbstop or property line?	Yes		
	Average         length         of         customer         service         ine         ?	and a data grading score		esponsibility of the utility)
		7 60.0	· · · · · · · · · · · · · · · · · · ·	
COST DATA		¢007.050	C () (	
		10 \$237,053 9 \$2.87	\$/Year \$/100 cubic feet (ccf)	
		8 \$1,743.70		tomer Retail Unit Cost to value real losses
	Retail costs are less than (or equal to) produ	iction costs; please review	v and correct if necessary	
WATER AUDIT DATA VALIDITY S				
		CORE IS: 74 out of 100 **		
	reighted scale for the components of consumption and w	ater loss is included in the ca	Iculation of the Water Audit Data	Validity Score
PRIORITY AREAS FOR ATTENTIOn Based on the information provided		ing componente:		
	audit accuracy can be improved by addressing the follow	ing components:		
1: Volume from own sources				
2: Billed metered				
3: Customer metering inaccura	ncies			

	AWW.	A Free Water Audit Reporting Works						
Click to access definition	Water Audit Report for: Myon	ma Dunes Mutual Water Co	mpany (3310051)			Cob	yright © 2014, All Rig	nts rteserveu
Click to add a comment  Please enter data in the white cells	Below. Where available, metered values should be	2015 1/2015 - 12/201		ie a value. Indicate	vour confid	ence in the	accuracy of the	
	nent (n/a or 1-10) using the drop-down list to the left		use over the cell to obtai	n a description of				
To sele	ct the correct data grading for each input, dete	ermine the highest grade wh	ere					-
WATER SUPPLIED	the utility meets or exceeds <u>all</u> criteria for that	• •	/ it. ling in column 'E' and '		er Meter ar Pcnt:	nd Supply	Error Adjustmen Value:	ts
WATER SOFFEIED	Volume from own sources: +	? 3 1,083.	200 MG/Yr	+ ? n/a		00		MG/Yr
	Water imported: + Water exported: +		000 MG/Yr 000 MG/Yr	+ ?		<u>0 0</u> 0 0		MG/Yr MG/Yr
	WATER SUPPLIED:	1,083.2	<b>:00</b> MG/Yr		-		e for under-registi for over-registrat	
AUTHORIZED CONSUMPTION				Line	positive /			_
AUTHORIZED CONSOMPTION	Billed metered: +		300 MG/Yr			for	help using option	
	Billed unmetered: + Unbilled metered: +		000 MG/Yr 000 MG/Yr		Pcnt:	Dui	tons below Value:	_
	Unbilled unmetered: +		540 MG/Yr		1.25%	$\odot$ $\bigcirc$		MG/Yr
	efault option selected for Unbilled unmetere AUTHORIZED CONSUMPTION:		40 MG/Yr				e buttons to select	
						pe	rcentage of water supplied <u>OR</u>	
WATER LOSSES (Water Supp	lied - Authorized Consumption)	93.6	60 MG/Yr				value	
Apparent Losses	Unauthorized consumption: +	? 2	708 MG/Yr		Pcnt: 0.25%		Value:	MG/Yr
Default	option selected for unauthorized consumption			d	0.2070	<u> </u>		
			179 MG/Yr			$\odot$		MG/Yr
Defa	Systematic data handling errors: + ult option selected for Systematic data han		40 MG/Yr 5 is applied but not o	displayed	0.25%	● C		MG/Yr
	Apparent Losses:	? 35.	27 MG/Yr					
Pool Lossos (Current Annual I								
Real Losses (Guiterit Annual I	Real Losses or CARL)							
	Real Losses or CARL) es = Water Losses - Apparent Losses:	? 58.	33 MG/Yr					
		_	<b>33</b> MG/Yr 60 MG/Yr					_
	es = Water Losses - Apparent Losses:	93.4						_
Real Losse NON-REVENUE WATER = Water Losses + Unbilled Metered	es = Water Losses - Apparent Losses: WATER LOSSES: NON-REVENUE WATER:	93.4	60 MG/Yr					-
Real Losse	es = Water Losses - Apparent Losses: WATER LOSSES: NON-REVENUE WATER: + Unbilled Unmetered	2 107.4	60 MG/Yr					-
Real Losse NON-REVENUE WATER = Water Losses + Unbilled Metered SYSTEM DATA	es = Water Losses - Apparent Losses: WATER LOSSES: NON-REVENUE WATER: + Unbilled Unmetered Length of mains: + active AND inactive service connections: +	93.1           ?         107.4           ?         5         3           ?         7         2	60 MG/Yr 00 MG/Yr 3.5 miles					-
Real Losse NON-REVENUE WATER = Water Losses + Unbilled Metered SYSTEM DATA	es = Water Losses - Apparent Losses: WATER LOSSES: NON-REVENUE WATER: I+ Unbilled Unmetered Length of mains: +	<ul> <li>93.1</li> <li>93.1</li> <li>93.2</li> <li>93.3</li> <li>93.4</li> <li< td=""><td>160 MG/Yr 100 MG/Yr 3.5 miles</td><td></td><td></td><td></td><td></td><td>-</td></li<></ul>	160 MG/Yr 100 MG/Yr 3.5 miles					-
Real Losse NON-REVENUE WATER = Water Losses + Unbilled Metered SYSTEM DATA Number of a Are customer meters typically	AND IN A CONTREMENTION OF A CONTREMENTION OF A CONTREMENTATION OF A CONTREMENTATICA A CONTREM	93.1           2         107.4           2         5         5           2         7         2,           7         2,         2	60 MG/Yr 3.5 miles 514 75 conn./mile main (length of	f service line, <u>beyo</u>				-
Real Losse <u>NON-REVENUE WATER</u> = Water Losses + Unbilled Metered SYSTEM DATA Number of a Are customer meters typically	Average length of customer service line has been set to	?         93.1           ?         107.4           ?         5         3           ?         7         2,           ?         7         2,           ?         2         2           ?         444         3	160 MG/Yr 100 MG/Yr 3.5 miles 114 75 conn./mile main 75 (length of boundary core of 10 has been a	, that is the respon				-
Real Losse <u>NON-REVENUE WATER</u> = Water Losses + Unbilled Metered SYSTEM DATA Number of a Are customer meters typically	Average length of customer service line has been set to	?         93.1           ?         107.4           ?         5         3           ?         7         2,           ?         7         2,           ?         2         2           ?         444         3	<ul> <li>MG/Yr</li> <li>MG/Yr</li> <li>MG/Yr</li> <li>miles</li> <li>miles</li> <li>conn./mile main</li> <li>(es (length of boundary boundary)</li> </ul>	, that is the respon				-
Real Losse <u>NON-REVENUE WATER</u> = Water Losses + Unbilled Metered SYSTEM DATA Number of a Are customer meters typically	Average length of customer service line has been set to	?         93.1           ?         107.4           ?         5         3           ?         7         2,           ?         7         2,           ?         2         2           ?         444         3	160 MG/Yr 100 MG/Yr 3.5 miles 114 75 conn./mile main 75 (length of boundary core of 10 has been a	, that is the respon				-
Real Losse NON-REVENUE WATER = Water Losses + Unbilled Metered SYSTEM DATA Number of a Are customer meters typically Average leng COST DATA Tota	Average operating pressure:	2         107.4           2         107.4           2         5           3         7           2         7           2         2           2         7           2         2           2         2           2         2           2         2           2         2           3         3           3         3           3         3           3         3           3         3           3         5           3         5           3         5           3         5           3         3           3         3           3         3           3         3           3         3           3         3           3         3           3         3           3         3           3         3           3         3           3         3           3         3           3         3           3         3	<ul> <li>MG/Yr</li> <li>MG/Yr</li> <li>MG/Yr</li> <li>miles</li> <li>miles</li> <li>conn./mile main</li> <li>conn./mile main</li> <li>(length of boundary</li> <li>core of 10 has been a</li> <li>psi</li> <li>\$/Year</li> </ul>	r, that is the respon applied				-
Real Losse NON-REVENUE WATER = Water Losses + Unbilled Metered SYSTEM DATA Number of a Are customer meters typically Average leng COST DATA Tota Customer retai	es = Water Losses - Apparent Losses: WATER LOSSES: NON-REVENUE WATER: + Unbilled Unmetered Length of mains: + active AND inactive service connections: + Service connection density: located at the curbstop or property line? Average length of customer service line: + th of customer service line has been set to Average operating pressure: +	2         107.4           2         107.4           2         5           2         7           2         7           2         2           2         2           2         2           2         2           2         2           2         2           2         5           2         5           2         5           2         10           \$2,026,         9           \$0	MG/Yr         MG/Yr         MG/Yr         3.5         miles         514         75         conn./mile main         (es         (length of boundary core of 10 has been at 0.0 psi	r, that is the respon applied (ccf)	nsibility of th	e utility)	  	-
Real Losse NON-REVENUE WATER = Water Losses + Unbilled Metered SYSTEM DATA Number of a Are customer meters typically Average leng COST DATA Tota Customer retai	Average operating pressure:  Average operating vater system:  I annual cost of operating water system:  Average in the operat	2         107.4           2         107.4           2         5           2         7           2         7           2         2           2         2           2         2           2         2           2         2           2         2           2         5           2         5           2         5           2         10           \$2,026,         9           \$0	<ul> <li>MG/Yr</li> <li>MG/Yr</li> <li>MG/Yr</li> <li>miles</li> <li>conn./mile main</li> <li>conn./mile main</li> <li>(es (length of boundary core of 10 has been a 0.0 psi</li> <li>\$/Year</li> <li>\$/Year</li> <li>\$/100 cubic feet</li> </ul>	r, that is the respon applied	nsibility of th	e utility)	] real losses	-
Real Losse NON-REVENUE WATER = Water Losses + Unbilled Metered SYSTEM DATA Number of a Are customer meters typically Average leng COST DATA Tota Customer retai	Average operating pressure: 4 Average operating pressure: 4 Average operating pressure: 4 Average operating vater system: 4 I annual cost of operating water system: 4 I annual cost (applied to Real Losses): 4 SCORE:	2       107.4         2       107.4         2       5       5         2       7       2,         2       7       2,         2       7       2,         2       7       2,         2       7       2,         2       2       5         2       5       5         2       5       5         2       10       \$2,026,         2       9       \$33	<ul> <li>MG/Yr</li> <li>MG/Yr</li> <li>MG/Yr</li> <li>miles</li> <li>conn./mile main</li> <li>(es (length of boundary core of 10 has been a 0.0 psi</li> <li>\$/Year</li> <li>97</li> <li>\$/100 cubic feet</li> <li>\$/Million gallons</li> </ul>	r, that is the respon applied (ccf)	nsibility of th	e utility)	] real losses	-
Real Losse         NON-REVENUE WATER         = Water Losses + Unbilled Metered         SYSTEM DATA         Number of a         Are customer meters typically         Average leng         COST DATA         Tota         Customer retai         Variable p	Average operating pressure: 4 Average operating pressure: 4 Average operating pressure: 4 Average operating vater system: 4 I annual cost of operating water system: 4 I annual cost (applied to Real Losses): 4 SCORE:	2         107.4           2         107.4           2         5           2         7           2         7           2         2           2         2           2         2           2         2           2         2           2         2           2         5           2         5           2         5           2         10           \$2,026,         9           \$0	<ul> <li>MG/Yr</li> <li>MG/Yr</li> <li>MG/Yr</li> <li>miles</li> <li>conn./mile main</li> <li>(es (length of boundary core of 10 has been a 0.0 psi</li> <li>\$/Year</li> <li>97</li> <li>\$/100 cubic feet</li> <li>\$/Million gallons</li> </ul>	r, that is the respon applied (ccf)	nsibility of th	e utility)	] real losses	-
Real Losse         NON-REVENUE WATER         = Water Losses + Unbilled Metered         SYSTEM DATA         Number of a         Are customer meters typically         Average leng         COST DATA         Tota         Customer retai         Variable p         WATER AUDIT DATA VALIDITY	Average operating pressure: 4 Average operating pressure: 4 Average operating pressure: 4 Average operating vater system: 4 I annual cost of operating water system: 4 I annual cost (applied to Real Losses): 4 SCORE:	?       93.1         ?       107.4         ?       5       3         ?       7       2,         ?       7       2,         ?       7       2,         ?       7       2,         ?       5       5         ?       5       8         ?       5       8         ?       10       \$2,026,         ?       9       \$0         ?       4       \$33	<ul> <li>MG/Yr</li> <li>MG/Yr</li> <li>MG/Yr</li> <li>MG/Yr</li> <li>miles</li> <li>conn./mile main</li> <li>conn./mile main</li> <li>(length of boundary boundary</li> <li>core of 10 has been at 0.0 psi</li> <li>\$/Year</li> <li>97</li> <li>100 cubic feet</li> <li>409</li> <li>\$/Year</li> <li>97</li> <li>\$/100 cubic feet</li> <li>4100 subic feet</li></ul>	r, that is the respon applied (ccf) Use Customer	Retail Unit Co	e utility)	] real losses	-
Real Losse         NON-REVENUE WATER         = Water Losses + Unbilled Metered         SYSTEM DATA         Number of g         Are customer meters typically         Average leng         COST DATA         Tota         Customer retai         Variable p         WATER AUDIT DATA VALIDITY         Average FOR ATTENT	Average operating pressure:   I annual cost of operating water system: I annual cost (applied to Apparent Losses): I annual cost (applied to Real Losses): I annual c	2       107.4         2       107.4         2       107.4         2       7         2       7         2       7         2       7         2       7         2       2         2       10         2       5         2       10         9       \$2,026,         7       9         \$33         UR SCORE IS: 49 out of 10         and water loss is included in the	<ul> <li>MG/Yr</li> <li>MG/Yr</li> <li>MG/Yr</li> <li>MG/Yr</li> <li>miles</li> <li>conn./mile main</li> <li>conn./mile main</li> <li>(length of boundary boundary</li> <li>core of 10 has been at 0.0 psi</li> <li>\$/Year</li> <li>97</li> <li>100 cubic feet</li> <li>409</li> <li>\$/Year</li> <li>97</li> <li>\$/100 cubic feet</li> <li>4100 subic feet</li></ul>	r, that is the respon applied (ccf) Use Customer	Retail Unit Co	e utility)	] real losses	-
Real Losse         NON-REVENUE WATER         = Water Losses + Unbilled Metered         SYSTEM DATA         Number of g         Are customer meters typically         Average leng         COST DATA         Tota         Customer retai         Variable p         WATER AUDIT DATA VALIDITY         Average for ATTENT         Based on the information provided	Average operating pressure: 4 I annual cost of operating water system: 4 I annual cost of operating between system in a system i	2       107.4         2       107.4         2       107.4         2       7         2       7         2       7         2       7         2       7         2       2         2       10         2       5         2       10         9       \$2,026,         7       9         \$33         UR SCORE IS: 49 out of 10         and water loss is included in the	<ul> <li>MG/Yr</li> <li>MG/Yr</li> <li>MG/Yr</li> <li>MG/Yr</li> <li>miles</li> <li>conn./mile main</li> <li>conn./mile main</li> <li>(length of boundary boundary</li> <li>core of 10 has been at 0.0 psi</li> <li>\$/Year</li> <li>97</li> <li>100 cubic feet</li> <li>409</li> <li>\$/Year</li> <li>97</li> <li>\$/100 cubic feet</li> <li>4100 subic feet</li></ul>	r, that is the respon applied (ccf) Use Customer	Retail Unit Co	e utility)	 real losses	-
Real Losse         NON-REVENUE WATER         = Water Losses + Unbilled Metered         SYSTEM DATA         Number of g         Are customer meters typically         Average leng         COST DATA         Tota         Customer retai         Variable p         WATER AUDIT DATA VALIDITY         Average long         PRIORITY AREAS FOR ATTENT         Based on the information provided,         1: Volume from own sources	Average length of customer service line:  I annual cost of operating water system: I annual cost (applied to Apparent Losses): I annual cost (applied to Real Losses): I a	2       107.4         2       107.4         2       107.4         2       7         2       7         2       7         2       7         2       7         2       2         2       10         2       5         2       10         9       \$2,026,         7       9         \$33         UR SCORE IS: 49 out of 10         and water loss is included in the	<ul> <li>MG/Yr</li> <li>MG/Yr</li> <li>MG/Yr</li> <li>MG/Yr</li> <li>miles</li> <li>conn./mile main</li> <li>conn./mile main</li> <li>(length of boundary boundary</li> <li>core of 10 has been at 0.0 psi</li> <li>\$/Year</li> <li>97</li> <li>100 cubic feet</li> <li>409</li> <li>\$/Year</li> <li>97</li> <li>\$/100 cubic feet</li> <li>4100 subic feet</li></ul>	r, that is the respon applied (ccf) Use Customer	Retail Unit Co	e utility)	] real losses	-
Real Losse         NON-REVENUE WATER         = Water Losses + Unbilled Metered         SYSTEM DATA         Number of g         Are customer meters typically         Average leng         COST DATA         Tota         Customer retai         Variable p         WATER AUDIT DATA VALIDITY         Average for ATTENT         Based on the information provided	Average length of customer service line:  I annual cost of operating water system: I annual cost (applied to Apparent Losses): I annual cost (applied to Real Losses): I a	2       107.4         2       107.4         2       107.4         2       7         2       7         2       7         2       7         2       7         2       2         2       10         2       5         2       10         9       \$2,026,         7       9         \$33         UR SCORE IS: 49 out of 10         and water loss is included in the	<ul> <li>MG/Yr</li> <li>MG/Yr</li> <li>MG/Yr</li> <li>MG/Yr</li> <li>miles</li> <li>conn./mile main</li> <li>conn./mile main</li> <li>(length of boundary boundary</li> <li>core of 10 has been at 0.0 psi</li> <li>\$/Year</li> <li>97</li> <li>100 cubic feet</li> <li>409</li> <li>\$/Year</li> <li>97</li> <li>\$/100 cubic feet</li> <li>4100 subic feet</li></ul>	r, that is the respon applied (ccf) Use Customer	Retail Unit Co	e utility)	] real losses	-

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Click to access definition     Click to add a comment	Water Audit Report for: Reporting Year:	Myoma Wate 2016	er Company (3310051) 1/2016 - 12/2016			
	below. Where available, metered values sho nent (n/a or 1-10) using the drop-down list to t	he left of the inp	put cell. Hover the mouse	over the cell to obtain a d	escription of the grades	in the accuracy of the
To colo			ered as: MILLION GAL	LONS (US) PER YEAI	K	
TO Sele	ct the correct data grading for each input the utility meets or exceeds <u>all</u> criteria for				Master Meter and Si	upply Error Adjustments
WATER SUPPLIED		•	< Enter grading	in column 'E' and 'J'	> Pcnt:	Value:
	Volume from own sources:	+ ? 5	1,074.300			MG/Yr
	Water imported: Water exported:	+ ? n/a + ? n/a		MG/Yr + MG/Yr +		O MG/Yr MG/Yr
	·					value for under-registration
	WATER SUPPLIED:		1,074.300	MG/Yr	Enter positive % or v	value for over-registration
AUTHORIZED CONSUMPTION	I					Click here: ?
	Billed metered:	+ ? 5	966.100			for help using option
	Billed unmetered: Unbilled metered:	+ ? n/a + ? 9		MG/Yr MG/Yr	Pcnt:	buttons below Value:
	Unbilled unmetered:		13.429		1.25%	MG/Yr
D	efault option selected for Unbilled unn	netered - a gr	rading of 5 is applied b	out not displayed		
	AUTHORIZED CONSUMPTION:	?	979.956	MG/Yr	L	Use buttons to select percentage of water supplied <u>OR</u>
WATER LOSSES (Water Supp	lied - Authorized Consumption)		94.344	MG/Vr		value
Apparent Losses	incu - Authonzeu oonsumption,		04.044	MO/TI	Pcnt:	★ Value:
Apparent Losses	Unauthorized consumption:	+ ?	2 686	MG/Yr	0.25%	MG/Yr
Default	option selected for unauthorized cons				0.2070	
	Customer metering inaccuracies:		29.893	1	3.00%	O MG/Yr
	Systematic data handling errors:			MG/Yr	0.25%	C MG/Yr
Defa	ult option selected for Systematic dat	a handling er	rors - a grading of 5 is	applied but not disp	layed	
	Apparent Losses:	?	34.994	MG/Yr		
Real Losses (Current Annual		_				
Real Losse	es = Water Losses - Apparent Losses:	?	59.351			
	WATER LOSSES:		94.344	MG/Yr		
NON-REVENUE WATER	NON-REVENUE WATER:	?	108.200	MG/Yr		
= Water Losses + Unbilled Meterec SYSTEM DATA	1 + Unbilled Unmetered					
STSTEMDATA	Length of mains:	+ ? 5	33.5	miles		
Number of a	active AND inactive service connections:	+ ? 5	2,514	niies		
	Service connection density:	?	75	conn./mile main		
Are customer meters typically	located at the curbstop or property line?		Yes			
	Average length of customer service line:	+ ?	100	(length of serv	ice line, <u>beyond</u> the property is the responsibility of the utili	ity)
Average leng	th of customer service line has been s				ed	
	Average operating pressure:	+ ? 9	80.0	psi		
COST DATA						
	I annual cost of operating water system:		\$2,026,409			
	il unit cost (applied to Apparent Losses): production cost (applied to Real Losses):			\$/100 cubic feet (ccf) \$/Million gallons	Use Customer Retail Unit Cost to	value real losses
	( ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) )					
WATER AUDIT DATA VALIDITY	SCORE:					
	*:	* YOUR SCO	RE IS: 61 out of 100 **	*		
Av	veighted scale for the components of consun	ption and wate	er loss is included in the ca	Iculation of the Water Au	dit Data Validity Score	
PRIORITY AREAS FOR ATTENT					,	
	, audit accuracy can be improved by address	ing the followin	na componente:			
1: Volume from own sources	, audit accuracy can be improved by address	ing the followin	ig components.			
2: Customer metering inaccur	racies					
3: Billed metered						

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	below. Where available, metered values sho ent (n/a or 1-10) using the drop-down list to	the left of the inp		over the cell to obtai	in a description of			the accuracy of the	
To sele	ct the correct data grading for each input				TEAR				_
	the utility meets or exceeds all criteria f	or that grade a	and all grades below it.			ter Meter	and Sup	ply Error Adjustmer	nts
WATER SUPPLIED			< Enter grading			Pcnt:		Value:	MON
	Volume from own sources: Water imported:		1,108.600	MG/Yr MG/Yr	+ ? 3				MG/Yr MG/Yr
	Water exported:	+ ? n/a	0.000	MG/Yr	+ ?		0 C		MG/Yr
	WATER SUPPLIED:		1,108.600	MG/Yr		•		alue for under-regist lue for over-registra	
			1,100.000	MO, TI	Line				_
AUTHORIZED CONSUMPTION	Billed metered:	+ ? 5	1,010.600	MG/Yr				Click here: ? for help using option	
	Billed unmetered:		0.000	MG/Yr				buttons below	
	Unbilled metered:		20.700			Pcnt:		Value:	
	Unbilled unmetered:	10	0.216	MG/Yr				0.216	MG/Yr
	AUTHORIZED CONSUMPTION:	?	1,031.516	MG/Yr				Use buttons to select percentage of water supplied <u>OR</u>	
WATER LOSSES (Water Supp	lind Authorized Consumption)		77.084	MC/Vr			:	value	
	lied - Authorized Consumption)		//.004	MG/11		Pcnt:		Value:	
Apparent Losses	Unauthorized consumption:	+ ?	2.772	MG/Yr		0.25%	l o c		MG/Yr
Default	option selected for unauthorized con				d				
	Customer metering inaccuracies:	+ ? 3	31.896	MG/Yr		3.00%	<b>O</b> C	$\Sigma$	MG/Yr
	Systematic data handling errors:			MG/Yr		0.25%	• (		MG/Yr
Defa	ult option selected for Systematic dat				displayed				
	Apparent Losses:	?	37.194	MG/Yr					
Real Losses (Current Annual	Real Losses or CARL)								
	s = Water Losses - Apparent Losses:	?	39.890	MG/Yr					
	WATER LOSSES:		77.084	MG/Yr					
NON-REVENUE WATER									_
<u></u>	NON-REVENUE WATER:	?	98.000	MG/Yr					
= Water Losses + Unbilled Metered	+ Unbilled Unmetered								_
SYSTEM DATA	I amouth of maximum		24.0						
Number of a	Length of mains: ctive AND inactive service connections:		. 34.0 2,537	miles					
	Service connection density:		75	conn./mile main					
Are customer meters typically	located at the curbstop or property line?		Yes						
	Average length of customer service line:		163		service line, <u>beyo</u> , that is the respo			)	
Average leng	th of customer service line has been s			e of 10 has been a			,		
	Average operating pressure:	+ ? 6	80.0	psi					
									-
COST DATA									
	I annual cost of operating water system: I unit cost (applied to Apparent Losses):		\$2,330,710 \$0.97	\$/Year \$/100 cubic feet	(ccf)				
	roduction cost (applied to Real Losses):			\$/Million gallons	Use Customer	r Retail Unit	Cost to va	lue real losses	
WATER AUDIT DATA VALIDITY	SCORE:								_
			RE IS: 54 out of 100 **	*			_		
A v	reighted scale for the components of consur	nption and wate	er loss is included in the ca	liculation of the Wate	er Audit Data Vali	dity Score			
PRIORITY AREAS FOR ATTENT	ION:								
	ION: audit accuracy can be improved by address	sing the followin	g components:						
		sing the followin	g components:						
Based on the information provided	audit accuracy can be improved by address	sing the followin	g components:						
Based on the information provided 1: Volume from own sources	audit accuracy can be improved by address	sing the followin	g components:						

	А		e Water Audit So orting Workshee				С	WA American Water Work opyright © 2014, All Rig	S v5.0 s Associatior hts Reserved
Click to access definition     Click to add a comment	Water Audit Report for: Reporting Year:		r Company (3310051) 1/2018 - 12/2018						
	below. Where available, metered values sho ent (n/a or 1-10) using the drop-down list to	the left of the inp	out cell. Hover the mouse of	over the cell to obtain	a description of			the accuracy of the	
To sele	ct the correct data grading for each inpu		ered as: MILLION GAL	LONS (US) PER I	EAR				-
10000	the utility meets or exceeds <u>all</u> criteria f	or that grade a	ind all grades below it.			er Meter	and Supp	oly Error Adjustmen	ts
WATER SUPPLIED			Enter grading			Pcnt:		Value:	
	Volume from own sources: Water imported:		1,211.900	MG/Yr MG/Yr	+ ? 3				MG/Yr MG/Yr
	Water exported:	+ ? n/a	0.000	MG/Yr	+ ?		$\odot$ $\bigcirc$		MG/Yr
	WATER SUPPLIED:		1,211.900	MG/Yr		•		lue for under-registi ue for over-registrat	
			1,211.000		Ento	r poolavo			_
AUTHORIZED CONSUMPTION	Billed metered:	+ ? 5	1,069.298	MG/Yr				Click here: ?	
	Billed unmetered:		0.000	MG/Yr				uttons below	
	Unbilled metered:		21.900	MG/Yr		Pcnt:	0 0	Value:	
	Unbilled unmetered:	3	1.212	MG/Yr				1.212	MG/Yr
	AUTHORIZED CONSUMPTION:	?	1,092.410	MG/Yr				lse buttons to select bercentage of water supplied <u>OR</u>	
WATER LOSSES (Water Supp	lied - Authorized Consumption)		119.490	MG/Yr				value	
Apparent Losses						Pcnt:	•	Value:	
Apparent 200000	Unauthorized consumption:	+ ?	3.030	MG/Yr		0.25%	ΟÖ		MG/Yr
Default	option selected for unauthorized con	sumption - a g	grading of 5 is applied	but not displayed	ł				-
	Customer metering inaccuracies:		33.748			3.00%	0		MG/Yr
	Systematic data handling errors:		2.673			0.25%	ΘC		MG/Yr
Deta	ult option selected for Systematic dat Apparent Losses:		rors - a grading of 5 is 39.451		lisplayed				
	Apparent Losses.		55.451	WG/11					
Real Losses (Current Annual I	Real Losses or CARL)								
Real Losse	es = Water Losses - Apparent Losses:	?	80.039	MG/Yr					
	WATER LOSSES:		119.490	MG/Yr					
NON-REVENUE WATER	WATER LOSSES:								-
	NON-REVENUE WATER:	?	119.490 142.602						-
= Water Losses + Unbilled Metered	NON-REVENUE WATER:								-
	NON-REVENUE WATER: + Unbilled Unmetered	?	142.602	MG/Yr					-
= Water Losses + Unbilled Metered	NON-REVENUE WATER: + Unbilled Unmetered Length of mains: active AND inactive service connections:	? + ? 5 + ? 7	<b>142.602</b> 34.0 2,550	MG/Yr miles					-
= Water Losses + Unbilled Metered	NON-REVENUE WATER: + Unbilled Unmetered Length of mains:	?	<b>142.602</b>	MG/Yr					-
= Water Losses + Unbilled Metered SYSTEM DATA Number of <u>a</u> Are customer meters typically	NON-REVENUE WATER: + Unbilled Unmetered Length of mains: active AND inactive service connections: Service connection density: located at the curbstop or property line?	? + ? 5 + ? 7 ?	<b>142.602</b> 34.0 2,550	MG/Yr miles conn./mile main	service line, beyo	nd the pro	perty		-
= Water Losses + Unbilled Metered SYSTEM DATA Number of <u>a</u> Are customer meters typically	NON-REVENUE WATER: + Unbilled Unmetered Length of mains: active AND inactive service connections: Service connection density: located at the curbstop or property line? Average length of customer service line:	? + ? 5 + ? 7 ? + ?	142.602 34.0 2,550 75 Yes	MG/Yr miles conn./mile main (length of boundary,	service line, beyo that is the respon				-
= Water Losses + Unbilled Metered SYSTEM DATA Number of <u>a</u> Are customer meters typically	NON-REVENUE WATER: + Unbilled Unmetered Length of mains: active AND inactive service connections: Service connection density: located at the curbstop or property line? Average length of customer service line: th of customer service line has been service lin	2 + 2 5 + 2 7 2 + 2 Set to zero and	142.602 34.0 2,550 75 Yes d a data grading score	MG/Yr miles conn./mile main (length of boundary, o of 10 has been a	that is the respon				-
= Water Losses + Unbilled Metered SYSTEM DATA Number of <u>a</u> Are customer meters typically	NON-REVENUE WATER: + Unbilled Unmetered Length of mains: active AND inactive service connections: Service connection density: located at the curbstop or property line? Average length of customer service line:	2 + 2 5 + 2 7 2 + 2 Set to zero and	142.602 34.0 2,550 75 Yes	MG/Yr miles conn./mile main (length of boundary, o of 10 has been a	that is the respon				-
= Water Losses + Unbilled Metered SYSTEM DATA Number of <u>a</u> Are customer meters typically	NON-REVENUE WATER: + Unbilled Unmetered Length of mains: active AND inactive service connections: Service connection density: located at the curbstop or property line? Average length of customer service line: th of customer service line has been service lin	2 + 2 5 + 2 7 2 + 2 Set to zero and	142.602 34.0 2,550 75 Yes d a data grading score	MG/Yr miles conn./mile main (length of boundary, o of 10 has been a	that is the respon				-
= Water Losses + Unbilled Metered SYSTEM DATA Number of a Are customer meters typically Average leng COST DATA	NON-REVENUE WATER: L+ Unbilled Unmetered Length of mains: active AND inactive service connections: Service connection density: located at the curbstop or property line? <u>Average</u> length of customer service line has been a Average operating pressure:	? + ? 5 + ? 7 ? + ? set to zero and + ? 6	142.602 34.0 2,550 75 Yes d a data grading score 80.0	MG/Yr miles conn./mile main (length of boundary, of 10 has been a psi	that is the respon				-
= Water Losses + Unbilled Metered SYSTEM DATA Number of a Are customer meters typically Average leng COST DATA	NON-REVENUE WATER: + Unbilled Unmetered Length of mains: active AND inactive service connections: Service connection density: located at the curbstop or property line? Average length of customer service line: th of customer service line has been service lin	? + ? 5 + ? 7 ? + ? set to zero and + ? 6 + ? 10	142.602 34.0 2,550 75 Yes d a data grading score 80.0 \$2,314,890	MG/Yr miles conn./mile main (length of boundary, of 10 has been a psi	that is the respon pplied				-
= Water Losses + Unbilled Metered SYSTEM DATA Number of <u>a</u> Are customer meters typically Average leng COST DATA Tota Customer retai	NON-REVENUE WATER: Length of mains: active AND inactive service connections: Service connection density: located at the curbstop or property line? Average length of customer service line: th of customer service line has been a Average operating pressure: I annual cost of operating water system:	<ul> <li>?</li> <li>+ ? 5</li> <li>+ ? 7</li> <li>?</li> <li>+ ?</li> <li>set to zero and</li> <li>+ ? 6</li> <li>+ ? 10</li> <li>+ ? 9</li> </ul>	142.602 34.0 2,550 75 Yes d a data grading score 80.0 \$2,314,890 \$0.97	MG/Yr miles conn./mile main (length of boundary, of 10 has been a psi \$/Year	that is the respon pplied	nsibility of t	he utility)	le real losses	-
= Water Losses + Unbilled Metered SYSTEM DATA Number of <u>a</u> Are customer meters typically Average leng COST DATA Tota Customer retai	NON-REVENUE WATER: Length of mains: active AND inactive service connections: Service connection density: located at the curbstop or property line? Average length of customer service line: th of customer service line has been Average operating pressure: I annual cost of operating water system: I unit cost (applied to Apparent Losses):	<ul> <li>?</li> <li>+ ? 5</li> <li>+ ? 7</li> <li>?</li> <li>+ ?</li> <li>set to zero and</li> <li>+ ? 6</li> <li>+ ? 10</li> <li>+ ? 9</li> </ul>	142.602 34.0 2,550 75 Yes d a data grading score 80.0 \$2,314,890 \$0.97	MG/Yr miles conn./mile main (length of boundary, of 10 has been a psi \$/Year \$/100 cubic feet (	that is the respon pplied	nsibility of t	he utility)	le real losses	-
= Water Losses + Unbilled Metered SYSTEM DATA Number of <u>a</u> Are customer meters typically Average leng COST DATA Tota Customer retai	NON-REVENUE WATER: Length of mains: Length of mains: Service connections: Service connection density: located at the curbstop or property line? Average length of customer service line th of customer service line has been s Average operating pressure: I annual cost of operating water system: I unit cost (applied to Apparent Losses): roduction cost (applied to Real Losses):	<ul> <li>?</li> <li>+ ? 5</li> <li>+ ? 7</li> <li>?</li> <li>+ ?</li> <li>set to zero and</li> <li>+ ? 6</li> <li>+ ? 10</li> <li>+ ? 9</li> </ul>	142.602 34.0 2,550 75 Yes d a data grading score 80.0 \$2,314,890 \$0.97	MG/Yr miles conn./mile main (length of boundary, of 10 has been a psi \$/Year \$/100 cubic feet (	that is the respon pplied	nsibility of t	he utility)	ue real losses	-
= Water Losses + Unbilled Metered SYSTEM DATA Number of <u>a</u> Are customer meters typically Average leng COST DATA Tota Customer retai Variable p	NON-REVENUE WATER: Length of mains: active AND inactive service connections: Service connection density: located at the curbstop or property line? Average length of customer service line: th of customer service line has been Average operating pressure: I annual cost of operating water system: I unit cost (applied to Apparent Losses): roduction cost (applied to Real Losses): SCORE:	<ul> <li>?</li> <li>+ ? 5</li> <li>+ ? 7</li> <li>?</li> <li>+ ?</li> <li>et to zero and</li> <li>+ ? 6</li> <li>+ ? 6</li> <li>+ ? 9</li> <li>+ ? 5</li> </ul>	142.602 34.0 2,550 75 Yes d a data grading score 80.0 \$2,314,890 \$0.97	MG/Yr miles conn./mile main (length of boundary, of 10 has been a psi \$/Year \$/100 cubic feet ( \$/Million gallons	that is the respon pplied	nsibility of t	he utility)	ue real losses	-
= Water Losses + Unbilled Metered SYSTEM DATA Number of a Are customer meters typically Average leng COST DATA Customer retai Variable p WATER AUDIT DATA VALIDITY	NON-REVENUE WATER: L+ Unbilled Unmetered Length of mains: active AND inactive service connections: Service connection density: located at the curbstop or property line? Average length of customer service line: Average operating pressure: I annual cost of operating water system: I unit cost (applied to Apparent Losses): roduction cost (applied to Real Losses): SCORE:	2 + 2 5 + 7 7 2 + 2 set to zero and + 2 6 + 2 6 + 2 6 + 2 5 + 2 7 2 + 2 5 + 2 5	142.602	MG/Yr miles conn./mile main (length of boundary, of 10 has been a psi \$/Year \$/100 cubic feet ( \$/Million gallons	that is the respon pplied ccf)	Retail Unit	he utility)	le real losses	-
= Water Losses + Unbilled Metered SYSTEM DATA Number of a Are customer meters typically Average leng COST DATA Cost DATA Tota Customer retai Variable p WATER AUDIT DATA VALIDITY	NON-REVENUE WATER: Length of mains: Inclive AND inactive service connections: Service connection density: located at the curbstop or property line? Average length of customer service line: th of customer service line has been a Average operating pressure: I annual cost of operating water system: I unit cost (applied to Apparent Losses): roduction cost (applied to Real Losses): SCORE: * veighted scale for the components of consur	2 + 2 5 + 7 7 2 + 2 set to zero and + 2 6 + 2 6 + 2 6 + 2 5 + 2 7 2 + 2 5 + 2 5	142.602	MG/Yr miles conn./mile main (length of boundary, of 10 has been a psi \$/Year \$/100 cubic feet ( \$/Million gallons	that is the respon pplied ccf)	Retail Unit	he utility)	le real losses	-
= Water Losses + Unbilled Metered SYSTEM DATA Number of <u>a</u> Are customer meters typically Average leng COST DATA Cost DATA Tota Customer retai Variable p WATER AUDIT DATA VALIDITY A w PRIORITY AREAS FOR ATTENT	NON-REVENUE WATER: Length of mains: Autive AND inactive service connections: Service connection density: located at the curbstop or property line? Average length of customer service line: th of customer service line has been a Average operating pressure: I annual cost of operating water system: I unit cost (applied to Apparent Losses): roduction cost (applied to Real Losses): SCORE: * veighted scale for the components of consur ION:	2 + 2 + 2 + 2 + 2 + 2 + 2 5 + 2 + 2 5 + 2 + 2 5 + 2 + 2 5 + 2 + 2 5 + 2 + 2 5 + 2 + 2 5 + 2 5 + 2 + 2 5 + 2 + 2 5 + 2 + 2 + 2 + 2 5 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2	142.602 34.0 2,550 75 Yes d a data grading score 80.0 \$2,314,890 \$0.97 \$312.65 RE IS: 53 out of 100 *** r loss is included in the ca	MG/Yr miles conn./mile main (length of boundary, of 10 has been a psi \$/Year \$/100 cubic feet ( \$/Million gallons	that is the respon pplied ccf)	Retail Unit	he utility)	le real losses	-
= Water Losses + Unbilled Metered SYSTEM DATA Number of g Are customer meters typically Average leng COST DATA Cost DATA Tota Customer retai Variable p WATER AUDIT DATA VALIDITY Av PRIORITY AREAS FOR ATTENT Based on the information provided	NON-REVENUE WATER: Length of mains: Inclive AND inactive service connections: Service connection density: located at the curbstop or property line? Average length of customer service line: th of customer service line has been a Average operating pressure: I annual cost of operating water system: I unit cost (applied to Apparent Losses): roduction cost (applied to Real Losses): SCORE: * veighted scale for the components of consur	2 + 2 + 2 + 2 + 2 + 2 + 2 5 + 2 + 2 5 + 2 + 2 5 + 2 + 2 5 + 2 + 2 5 + 2 + 2 5 + 2 + 2 5 + 2 5 + 2 + 2 5 + 2 + 2 5 + 2 + 2 + 2 + 2 5 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2	142.602 34.0 2,550 75 Yes d a data grading score 80.0 \$2,314,890 \$0.97 \$312.65 RE IS: 53 out of 100 *** r loss is included in the ca	MG/Yr miles conn./mile main (length of boundary, of 10 has been a psi \$/Year \$/100 cubic feet ( \$/Million gallons	that is the respon pplied ccf)	Retail Unit	he utility)	ie real losses	-
Water Losses + Unbilled Metered SYSTEM DATA      Number of a Are customer meters typically Average leng  COST DATA  COST DATA  Tota Customer retai Variable p  WATER AUDIT DATA VALIDITY  Ave PRIORITY AREAS FOR ATTENT Based on the information provided 1: Volume from own sources	NON-REVENUE WATER: Length of mains: active AND inactive service connections: Service connection density: located at the curbstop or property line? Average length of customer service line has been a Average operating pressure: I annual cost of operating water system: I unit cost (applied to Apparent Losses): roduction cost (applied to Real Losses): SCORE: * veighted scale for the components of consur ION: , audit accuracy can be improved by address	2 + 2 + 2 + 2 + 2 + 2 + 2 5 + 2 + 2 5 + 2 + 2 5 + 2 + 2 5 + 2 + 2 5 + 2 + 2 5 + 2 + 2 5 + 2 5 + 2 + 2 5 + 2 + 2 5 + 2 + 2 + 2 + 2 5 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2	142.602 34.0 2,550 75 Yes d a data grading score 80.0 \$2,314,890 \$0.97 \$312.65 RE IS: 53 out of 100 *** r loss is included in the ca	MG/Yr miles conn./mile main (length of boundary, of 10 has been a psi \$/Year \$/100 cubic feet ( \$/Million gallons	that is the respon pplied ccf)	Retail Unit	he utility)	ie real losses	-
<ul> <li>Water Losses + Unbilled Metered</li> <li>SYSTEM DATA</li> <li>Number of a</li> <li>Are customer meters typically</li> <li>Average leng</li> <li>COST DATA</li> <li>Cost DATA</li> <li>Tota</li> <li>Customer retai</li> <li>Variable p</li> <li>WATER AUDIT DATA VALIDITY</li> <li>Average for a second second</li></ul>	NON-REVENUE WATER: Length of mains: active AND inactive service connections: Service connection density: located at the curbstop or property line? Average length of customer service line has been a Average operating pressure: I annual cost of operating water system: I unit cost (applied to Apparent Losses): roduction cost (applied to Real Losses): SCORE: * veighted scale for the components of consur ION: , audit accuracy can be improved by address	2 + 2 + 2 + 2 + 2 + 2 + 2 5 + 2 + 2 5 + 2 + 2 5 + 2 + 2 5 + 2 + 2 5 + 2 + 2 5 + 2 + 2 5 + 2 5 + 2 + 2 5 + 2 + 2 5 + 2 + 2 + 2 + 2 5 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2	142.602 34.0 2,550 75 Yes d a data grading score 80.0 \$2,314,890 \$0.97 \$312.65 RE IS: 53 out of 100 *** r loss is included in the ca	MG/Yr miles conn./mile main (length of boundary, of 10 has been a psi \$/Year \$/100 cubic feet ( \$/Million gallons	that is the respon pplied ccf)	Retail Unit	he utility)	le real losses	-
Water Losses + Unbilled Metered SYSTEM DATA      Number of a Are customer meters typically Average leng  COST DATA  COST DATA  Tota Customer retai Variable p  WATER AUDIT DATA VALIDITY  Av PRIORITY AREAS FOR ATTENT Based on the information provided 1: Volume from own sources	NON-REVENUE WATER: Length of mains: active AND inactive service connections: Service connection density: located at the curbstop or property line? Average length of customer service line has been a Average operating pressure: I annual cost of operating water system: I unit cost (applied to Apparent Losses): roduction cost (applied to Real Losses): SCORE: * veighted scale for the components of consur ION: , audit accuracy can be improved by address	2 + 2 + 2 + 2 + 2 + 2 + 2 5 + 2 + 2 5 + 2 + 2 5 + 2 + 2 5 + 2 + 2 5 + 2 + 2 5 + 2 + 2 5 + 2 5 + 2 + 2 5 + 2 + 2 5 + 2 + 2 + 2 + 2 5 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2	142.602 34.0 2,550 75 Yes d a data grading score 80.0 \$2,314,890 \$0.97 \$312.65 RE IS: 53 out of 100 *** r loss is included in the ca	MG/Yr miles conn./mile main (length of boundary, of 10 has been a psi \$/Year \$/100 cubic feet ( \$/Million gallons	that is the respon pplied ccf)	Retail Unit	he utility)	Je real losses	-

	AWW	A Free Water Audit S <u>Reporting Workshe</u> e			WAS v5.0 nerican Water Works Association right © 2014, All Rights Reserved
<ul> <li>Click to access definition</li> <li>Click to add a comment</li> </ul>		ma Dunes Water Company (3 2019 1/2019 - 12/2019	310051)	]	
	below. Where available, metered values should be ent (n/a or 1-10) using the drop-down list to the left	t of the input cell. Hover the mouse	over the cell to obtain a descript		accuracy of the
To colo	All volumes t ct the correct data grading for each input, dete	o be entered as: MILLION GAL	LONS (US) PER YEAR		
TO Sele	the utility meets or exceeds <u>all</u> criteria for tha			Master Meter and Supply E	Error Adjustments
WATER SUPPLIED			in column 'E' and 'J'		Value:
	Volume from own sources: + Water imported: +	? <u>3</u> 1,177.300 ? n/a	MG/Yr + ? MG/Yr + ?	3 0.00% O	MG/Yr MG/Yr
	Water exported: +	? n/a	MG/Yr + ?		MG/Yr
		4 477 200		Enter negative % or value	•
	WATER SUPPLIED:	1,177.300	MG/Yr	Enter positive % or value for	br over-registration
AUTHORIZED CONSUMPTION	Billed metered: +	? 4 1,044.610	MG/Yr		here: ?
	Billed unmetered: +		MG/Yr		ons below
	Unbilled metered: +		MG/Yr		Value:
	Unbilled unmetered: +	0.131	MG/Yr		0.131 MG/Yr
	AUTHORIZED CONSUMPTION:	? 1,089.131	MG/Yr		buttons to select centage of water supplied
WATER LOSSES (Water Supp	lied - Authorized Consumption)	88.169	MG/Xr	-	value
Apparent Losses	neu - Autorizeu consumption)	00.105	MG/11	Pcnt: ▼ \	Value:
Apparent Losses	Unauthorized consumption: 📑	? 2.943	MG/Yr	0.25% O	MG/Yr
Default	option selected for unauthorized consump	tion - a grading of 5 is applied	l but not displayed		
	Customer metering inaccuracies:		MG/Yr	3.00% • •	MG/Yr
Dofa	Systematic data handling errors: + ult option selected for Systematic data har		MG/Yr	0.25% 🕥 🗋	MG/Yr
Dela	Apparent Losses:	? <b>39.235</b>	1		
			•		
Real Losses (Current Annual			1		
Real Losse	es = Water Losses - Apparent Losses:	? 48.934	1		
	WATER LOSSES:	88.169	MG/Yr		
NON-REVENUE WATER					
= Water Losses + Unbilled Metered	NON-REVENUE WATER:	? 132.690	MG/Yr		
= Water Losses + Unbilled Metered		? 132.690	MG/Yr		
SYSTEM DATA	+ Unbilled Unmetered Length of mains: + active AND inactive service connections: +	7 5 35.0 7 7 2,577	miles		
SYSTEM DATA	+ Unbilled Unmetered Length of mains: •	7 5 35.0 7 7 2,577			
SYSTEM DATA Number of <u>a</u> Are customer meters typically	Length of mains: +     Length of mains: +     active AND inactive service connections: +     Service connection density:     located at the curbstop or property line?	2 5 35.0 2 7 2,577	miles conn./mile main (length of service line	9, <u>beyond</u> the property	
SYSTEM DATA Number of <u>a</u> Are customer meters typically	Length of mains: + active AND inactive service connections: + Service connection density: located at the curbstop or property line? Average length of customer service line: +	2 5 35.0 7 7 2,577 7 74 Yes	miles conn./mile main (length of service line boundary, that is the	b), <u>beyond</u> the property responsibility of the utility)	
SYSTEM DATA Number of <u>a</u> Are customer meters typically	Length of mains: +     Length of mains: +     active AND inactive service connections: +     Service connection density:     located at the curbstop or property line?	2 5 35.0 7 7 2,577 7 74 Yes	miles conn./mile main (length of service line boundary, that is the e of 10 has been applied		
SYSTEM DATA Number of <u>a</u> Are customer meters typically	Length of mains: + active AND inactive service connections: + Service connection density: located at the curbstop or property line? Average length of customer service line: + th of customer service line has been set to	?         5         35.0           ?         7         2,577           ?         74         Yes           ?         Zero and a data grading score	miles conn./mile main (length of service line boundary, that is the e of 10 has been applied		
SYSTEM DATA Number of <u>a</u> Are customer meters typically	Length of mains: + active AND inactive service connections: + Service connection density: located at the curbstop or property line? Average length of customer service line: + th of customer service line has been set to	?         5         35.0           ?         7         2,577           ?         74         Yes           ?         Zero and a data grading score	miles conn./mile main (length of service line boundary, that is the e of 10 has been applied		
SYSTEM DATA Number of <u>a</u> Are customer meters typically Average leng COST DATA	Length of mains:   Length of mains:   Currice AND inactive service connections:   Service connection density:  located at the curbstop or property line:   Average length of customer service line has been set to Average operating pressure:   I annual cost of operating water system:	2       5       35.0         ?       7       2,577         ?       74       Yes         Zero and a data grading score       ?         2       5       80.0         2       10       \$2,364,469	miles conn./mile main (length of service line boundary, that is the e of 10 has been applied psi \$/Year		
SYSTEM DATA Number of <u>a</u> Are customer meters typically Average leng COST DATA Tota Customer retai	Length of mains: * <u>active AND inactive</u> service connections: * Service connection density: located at the curbstop or property line? <u>Average</u> length of customer service line: * th of customer service line has been set to Average operating pressure: * I annual cost of operating water system: * I unit cost (applied to Apparent Losses): *	?       5       35.0         ?       7       2,577         ?       74       Yes         ?       74       Yes         ?       2       80.0         ?       5       80.0         ?       10       \$2,364,469         ?       9       \$1.31	miles conn./mile main (length of service line boundary, that is the e of 10 has been applied psi \$/Year \$/100 cubic feet (ccf)	responsibility of the utility)	al losses
SYSTEM DATA Number of <u>a</u> Are customer meters typically Average leng COST DATA Tota Customer retai	Length of mains:   Length of mains:   Currice AND inactive service connections:   Service connection density:  located at the curbstop or property line:   Average length of customer service line has been set to Average operating pressure:   I annual cost of operating water system:	?       5       35.0         ?       7       2,577         ?       74       Yes         ?       74       Yes         ?       2       80.0         ?       5       80.0         ?       10       \$2,364,469         ?       9       \$1.31	miles conn./mile main (length of service line boundary, that is the e of 10 has been applied psi \$/Year \$/100 cubic feet (ccf)		al losses
SYSTEM DATA Number of <u>a</u> Are customer meters typically Average leng COST DATA Tota Customer retai	Length of mains: + Inctive AND inactive service connections: + Service connection density: located at the curbstop or property line? Average length of customer service line: + th of customer service line has been set to Average operating pressure: + I annual cost of operating water system: + I unit cost (applied to Apparent Losses): + roduction cost (applied to Real Losses): +	?       5       35.0         ?       7       2,577         ?       74       Yes         ?       74       Yes         ?       2       80.0         ?       5       80.0         ?       10       \$2,364,469         ?       9       \$1.31	miles conn./mile main (length of service line boundary, that is the e of 10 has been applied psi \$/Year \$/100 cubic feet (ccf)	responsibility of the utility)	al losses
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SYSTEM DATA Number of <u>a</u> Are customer meters typically Average leng COST DATA Customer retai Variable p WATER AUDIT DATA VALIDITY	Length of mains:    Length of mains:   Length of mains:   Length of mains:   Length of mains:   Length of connection density:   Located at the curbstop or property line:   Length of customer service line has been set to Average operating pressure:   Length of custorer service line has been set to Average operating pressure:   Length of custorer service line has been set to Average operating pressure:   Length of custorer service line has been set to Average operating pressure:   Length of custorer service line has been set to Average operating pressure:   Length of custorer service line has been set to Average operating pressure:   Length of custorer service line has been set to Average operating pressure:   Length of custorer service line has been set to Average operating pressure:   Length of custorer service line has been set to Average operating pressure:   Length of custorer service line has been set to Average operating pressure:   Length of custorer service line has been set to Average operating pressure:   Length of custorer service line has been set to Average operating pressure:   Length of custorer service line has been set to Average operating pressure:   Length of custorer service line has been set to Average operating pressure:   Length of custorer service line has been set to Average operating pressure:   Length of custorer service line has been set to Average operating pressure:   Length of custorer service line has been set to Average operating pressure:   Length of custorer service line has been set to Average operating pressure:   Length of custorer service line has been set to Average operating pressure:   Length of custorer service line has been set to Average operating pressure:   Length of custorer service line has been set to Average operating pressure:   Length of custorer service line has been set to Average operating pressure:   Length of custorer service line has been set to Average operati	?       5       35.0         ?       7       2,577         ?       74       Yes         ?       74       Yes         ?       5       80.0         ?       5       80.0         ?       10       \$2,364,469         ?       9       \$1.31         ?       7       \$538.05         UR SCORE IS: 54 out of 100 **	miles conn./mile main (length of service line boundary, that is the e of 10 has been applied psi \$/Year \$/Year \$/100 cubic feet (ccf) \$/Million gallons Use Cu	responsibility of the utility)	ial losses
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SYSTEM DATA Number of <u>a</u> Are customer meters typically Average leng COST DATA Customer retai Variable p WATER AUDIT DATA VALIDITY Av PRIORITY AREAS FOR ATTENT	Length of mains:   Service connection density:   Service connection density:   Located at the curbstop or property line?  Average length of customer service line has been set to  Average operating pressure:   Lannual cost of operating water system:   Lannual cost (applied to Apparent Losses):   CORE:    CORE:    Consumption  LON:	2       5       35.0         ?       7       2,577         2       74       Yes         2       74       Yes         2       5       80.0         2       5       80.0         2       9       \$1.31         2       7       \$538.05         UR SCORE IS: 54 out of 100 **         and water loss is included in the call	miles conn./mile main (length of service line boundary, that is the e of 10 has been applied psi \$/Year \$/Year \$/100 cubic feet (ccf) \$/Million gallons Use Cu	responsibility of the utility)	:al losses
SYSTEM DATA Number of <u>a</u> Are customer meters typically Average leng COST DATA Customer retai Variable p WATER AUDIT DATA VALIDITY Av PRIORITY AREAS FOR ATTENT	Length of mains:     Length of mains:    Length of mains:     Length of mains:     Length of mains:      Length of mains:      Length of mains:      Length of mains:       Length of mains:       Length of mains:        Length of mains:         Length of mains:           Length of mains:	2       5       35.0         ?       7       2,577         2       74       Yes         2       74       Yes         2       5       80.0         2       5       80.0         2       9       \$1.31         2       7       \$538.05         UR SCORE IS: 54 out of 100 **         and water loss is included in the call	miles conn./mile main (length of service line boundary, that is the e of 10 has been applied psi \$/Year \$/Year \$/100 cubic feet (ccf) \$/Million gallons Use Cu	responsibility of the utility)	al losses
SYSTEM DATA Number of <u>a</u> Are customer meters typically Average leng COST DATA Tota Customer retai Variable p WATER AUDIT DATA VALIDITY MATER AUDIT DATA VALIDITY Average leng	Length of mains:   Service connection density:   Service connection density:   Located at the curbstop or property line?  Average length of customer service line has been set to  Average operating pressure:   Lannual cost of operating water system:   Lannual cost (applied to Apparent Losses):   CORE:    CORE:    Consumption  LON:	2       5       35.0         ?       7       2,577         2       74       Yes         2       74       Yes         2       5       80.0         2       5       80.0         2       9       \$1.31         2       7       \$538.05         UR SCORE IS: 54 out of 100 **         and water loss is included in the call	miles conn./mile main (length of service line boundary, that is the e of 10 has been applied psi \$/Year \$/Year \$/100 cubic feet (ccf) \$/Million gallons Use Cu	responsibility of the utility)	ial losses
SYSTEM DATA Number of <u>a</u> Are customer meters typically Average leng COST DATA Tota Customer retai Variable p WATER AUDIT DATA VALIDITY WATER AUDIT DATA VALIDITY Av PRIORITY AREAS FOR ATTENT Based on the information provided 1: Volume from own sources	Length of mains:    Length of mains:    Length of mains:    Length of mains:    Length of conservice connections environed by addressing the conservation of the main of the ma	2       5       35.0         ?       7       2,577         2       74       Yes         2       74       Yes         2       5       80.0         2       5       80.0         2       9       \$1.31         2       7       \$538.05         UR SCORE IS: 54 out of 100 **         and water loss is included in the call	miles conn./mile main (length of service line boundary, that is the e of 10 has been applied psi \$/Year \$/Year \$/100 cubic feet (ccf) \$/Million gallons Use Cu	responsibility of the utility)	al losses

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Appendix H: Resolutions of Adoption

## Appendix I: DWR UWMP Checklists

		2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
etail	Wholesale			A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses,		
	x	Chapter 1	10615	reclamation and demand management activities.	Introduction and Overview	Section 1.1
	x	Chapter 1	10630.5	Each plan shall include a simple description of the supplier's plan including water availability, future requirements, a strategy for meeting needs, and other pertinent information. Additionally, a supplier may also choose to include a simple description at the beginning of each chapter.	Summary	Section 1.3
	x	Section 2.2	10620(b)	Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.	Plan Preparation	Section 4.2
	x	Section 2.6	10620(d)(2)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan Preparation	Section 4.2
	x	Section 2.6.2	10642	Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan and contingency plan.	Plan Preparation	Section 4.2
		Section 2.6, Section 6.1	10631(h)	Retail suppliers will include documentation that they have provided their wholesale supplier(s) - if any - with water use projections from that source.	System Supplies	Section 4.2
	x	Section 2.6	10631(h)	Wholesale suppliers will include documentation that they have provided their urban water suppliers with identification and quantification of the existing and planned sources of water available from the wholesale to the urban supplier during various water year types.	System Supplies	N/A
	х	Section 3.1	10631(a)	Describe the water supplier service area.	System Description	Section 4.3
	x	Section 3.3	10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 4.3
	х	Section 3.4	10631(a)	Provide population projections for 2025, 2030, 2035, 2040 and optionally 2045.	System Description	Section 4.3
	x	Section 3.4.2	10631(a)	Describe other social, economic, and demographic factors affecting the supplier's water management planning.	System Description	Section 4.3
	x	Sections 3.4 and 5.4	10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	Section 4.3
	x	Section 3.5	10631(a)	Describe the land uses within the service area.	System Description	Section 4.3
	x	Section 4.2	10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Section 4.4
	х	Section 4.2.4	10631(d)(3)(C)	Retail suppliers shall provide data to show the distribution loss standards were met.	System Water Use	Section 4.4
	x	Section 4.2.6	10631(d)(4)(A)	In projected water use, include estimates of water savings from adopted codes, plans and other policies or laws.	System Water Use	Section 4.4
	x	Section 4.2.6	10631(d)(4)(B)	Provide citations of codes, standards, ordinances, or plans used to make water use projections.	System Water Use	Section 4.4
	optional	Section 4.3.2.4	10631(d)(3)(A)	Report the distribution system water loss for each of the 5 years preceding the plan update.	System Water Use	Section 4.4
	optional	Section 4.4	10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the supplier.	System Water Use	Section 4.4
	x	Section 4.5	10635(b)	Demands under climate change considerations must be included as part of the drought risk assessment.	System Water Use	Section 4.4
		Chapter 5	10608.20(e)	Retail suppliers shall provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	Baselines and Targets	Section 4.5
		Chapter 5	10608.24(a)	Retail suppliers shall meet their water use target by December 31, 2020.	Baselines and Targets	Section 4.5
	x	Section 5.1	10608.36	Wholesale suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their retail water suppliers achieve targeted water use reductions.	Baselines and Targets	N/A
		Section 5.2	10608.24(d)(2)	If the retail supplier adjusts its compliance GPCD using weather normalization, economic adjustment, or extraordinary events, it shall provide the basis for, and data supporting the adjustment.	Baselines and Targets	Section 4.5
		Section 5.5	10608.22	Retail suppliers' per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use of the 5 year baseline. This does not apply if the suppliers base GPCD is at or below 100.	Baselines and Targets	Section 4.5
		Section 5.5 and Appendix E	10608.4	Retail suppliers shall report on their compliance in meeting their water use targets. The data shall be reported using a standardized form in the SBX7-7 2020 Compliance Form.	Baselines and Targets	Section 4.5
	x	Sections 6.1 and 6.2	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought.	System Supplies	Section 4.7
	x	Sections 6.1	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought, <i>including</i> <i>changes in supply due to climate change</i> .	System Supplies	Section 4.7
	x	Section 6.1	10631(b)(2)	When multiple sources of water supply are identified, describe the management of each supply in relationship to other identified supplies.	System Supplies	Section 4.6

	a Valley Wate					2020 UWMP Location (Optional
etail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Column for Agency Review Use
lall	X	Section 6.1.1	10631(b)(3)	Describe measures taken to acquire and develop planned sources of water.	System Supplies	Section 4.6
	x	Section 6.2.8	10631(b)	Identify and quantify the existing and planned sources of water available for 2020, 2025, 2030, 2035, 2040 and optionally 2045.	System Supplies	Section 4.6
	x	Section 6.2	10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Section 4.6
	x	Section 6.2.2	10631(b)(4)(A)	Indicate whether a groundwater sustainability plan or groundwater management plan has been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System Supplies	Section 4.6
	х	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	System Supplies	Section 4.6
	x	Section 6.2.2	10631(b)(4)(B)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the supplier has the legal right to pump.	System Supplies	Section 4.6
	x	Section 6.2.2.1	10631(b)(4)(B)	For unadjudicated basins, indicate whether or not the department has identified the basin as a high or medium priority. Describe efforts by the supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions.	System Supplies	Section 4.6
	x	Section 6.2.2.4	10631(b)(4)(C)	Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years	System Supplies	Section 4.6
	x	Section 6.2.2	10631(b)(4)(D)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System Supplies	Section 4.6
	x	Section 6.2.7	10631(c)	Describe the opportunities for exchanges or transfers of water on a short-term or long- term basis.	System Supplies	Section 4.6
	x	Section 6.2.5	10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System Supplies (Recycled Water)	Section 4.6
	x	Section 6.2.5	10633(c)	Describe the recycled water currently being used in the supplier's service area.	System Supplies (Recycled Water)	Section 4.6
	x	Section 6.2.5	10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System Supplies (Recycled Water)	Section 4.6
	x	Section 6.2.5 10633(e)	10633(e)	Describe the projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected.	System Supplies (Recycled Water)	Section 4.6
	x	Section 6.2.5	10633(f)	Describe the actions which may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System Supplies (Recycled Water)	Section 4.6
	x	Section 6.2.5	10633(g)	Provide a plan for optimizing the use of recycled water in the supplier's service area.	System Supplies (Recycled Water)	Section 4.6
	х	Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 4.6
	x	Section 6.2.5	10633(a)	Describe the wastewater collection and treatment systems in the supplier's service area with quantified amount of collection and treatment and the disposal methods.	System Supplies (Recycled Water)	Section 4.6
	x	Section 6.2.8, Section 6.3.7	10631(f)	Describe the expected future water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and for a period of drought lasting 5 consecutive water years.	System Supplies	Section 4.6
	x	Section 6.4 and Appendix O	10631.2(a)	The UWMP must include energy information, as stated in the code, that a supplier can readily obtain.	System Suppliers, Energy Intensity	Section 4.6
	x	Section 7.2	10634	Provide information on the quality of existing sources of water available to the supplier and the manner in which water quality affects water management strategies and supply reliability	Water Supply Reliability Assessment	Section 4.7
	x	Section 7.2.4	10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water Supply Reliability Assessment	Section 4.7
	x	Section 7.3	10635(a)	Service Reliability Assessment: Assess the water supply reliability during normal, dry, and a drought lasting five consecutive water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years.	Water Supply Reliability Assessment	Section 4.7
	x	Section 7.3	10635(b)	Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects.	Water Supply Reliability Assessment	Section 4.7
	x	Section 7.3	10635(b)(1)	Include a description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts 5 consecutive years.	Water Supply Reliability Assessment	Section 4.7
	x	Section 7.3	10635(b)(2)	Include a determination of the reliability of each source of supply under a variety of water shortage conditions.	Water Supply Reliability Assessment	Section 4.7
	x	Section 7.3	10635(b)(3)	Include a comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period.	Water Supply Reliability Assessment	Section 4.7
	x	Section 7.3	10635(b)(4)	Include considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.	Water Supply Reliability Assessment	Section 4.7

ətail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
	x	Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water Shortage Contingency Planning	WSCP
	x	Chapter 8	10632(a)(1)	Provide the analysis of water supply reliability (from Chapter 7 of Guidebook) in the WSCP	Water Shortage Contingency Planning	WSCP, Section 1
	x	Section 8.10	10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the water shortage contingency plan to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Water Shortage Contingency Planning	WSCP, Section 2
	x	Section 8.2	10632(a)(2)(A)	Provide the written decision-making process and other methods that the supplier will use each year to determine its water reliability.	Water Shortage Contingency Planning	WSCP, Section 2
	x	Section 8.2	10632(a)(2)(B)	Provide data and methodology to evaluate the supplier's water reliability for the current year and one dry year pursuant to factors in the code.	Water Shortage Contingency Planning	WSCP, Section 2
	x	Section 8.3	10632(a)(3)(A)	Define six standard water shortage levels of 10, 20, 30, 40, 50 percent shortage and greater than 50 percent shortage. These levels shall be based on supply conditions, including percent reductions in supply, changes in groundwater levels, changes in surface elevation, or other conditions. The shortage levels shall also apply to a catastrophic interruption of supply.	Water Shortage Contingency Planning	WSCP, Section 3
	x	Section 8.3	10632(a)(3)(B)	Suppliers with an existing water shortage contingency plan that uses different water shortage levels must cross reference their categories with the six standard categories.	Water Shortage Contingency Planning	WSCP, Section 3
	x	Section 8.4	10632(a)(4)(A)	Suppliers with water shortage contingency plans that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Water Shortage Contingency Planning	WSCP, Section 4
	x	Section 8.4	10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water Shortage Contingency Planning	WSCP, Section 4
	x	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Water Shortage Contingency Planning	WSCP, Section 4
	x	Section 8.4	10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions are appropriate to local conditions.	Water Shortage Contingency Planning	WSCP, Section 4
	x	Section 8.4	10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	Water Shortage Contingency Planning	WSCP, Section 4
	x	Section 8.4.6	10632.5	The plan shall include a seismic risk assessment and mitigation plan.	Water Shortage Contingency Plan	WSCP, Section 4.6
	x	Section 8.5	10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Water Shortage Contingency Planning	WSCP, Section 5
	x	Section 8.5 and 8.6	10632(a)(5)(B) 10632(a)(5)(C)	Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications.	Water Shortage Contingency Planning	WSCP, Section 5
		Section 8.6	10632(a)(6)	Retail supplier must describe how it will ensure compliance with and enforce provisions of the WSCP.	Water Shortage Contingency Planning	WSCP, Section 6
		Section 8.7	10632(a)(7)(A)	Describe the legal authority that empowers the supplier to enforce shortage response actions.	Water Shortage Contingency Planning	WSCP, Section 7
	x	Section 8.7	10632(a)(7)(B)	Provide a statement that the supplier will declare a water shortage emergency Water Code Chapter 3.	Water Shortage Contingency Planning	WSCP, Section 7
	x	Section 8.7	10632(a)(7)(C)	Provide a statement that the supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency.	Water Shortage Contingency Planning	WSCP, Section 7
	x	Section 8.8	10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	WSCP, Section 8
	x	Section 8.8	10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	WSCP, Section 8
		Section 8.8	10632(a)(8)(C)	Retail suppliers must describe the cost of compliance with Water Code Chapter 3.3: Excessive Residential Water Use During Drought	Water Shortage Contingency Planning	WSCP, Section 8
		Section 8.9	10632(a)(9)	Retail suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance.	Water Shortage Contingency Planning	WSCP, Section 8
		Section 8.11	10632(b)	Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	Water Shortage Contingency Planning	WSCP, Section 11
	x	Sections 8.12 and 10.4	10635(c)	Provide supporting documentation that Water Shortage Contingency Plan has been, or will be, provided to any city or county within which it provides water, no later than 30 days after the submission of the plan to DWR.	Plan Adoption, Submittal, and Implementation	WSCP, Section 12
	x	Section 8.12	10632(c)	Make available the Water Shortage Contingency Plan to customers and any city or county where it provides water within 30 after adopted the plan.	Water Shortage Contingency Planning	WSCP, Section 12
	x	Sections 9.1 and 9.3	10631(e)(2)	Wholesale suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and supplier assistance program.	Demand Management Measures	N/A

Coachell	a Valley Wate	er District				
Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP		2020 UWMP Location (Optional Column for Agency Review Use)
x		Sections 9.2 and 9.3	10631(e)(1)	Retail suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand Management Measures	Section 4.9
x		Chapter 10	10608.26(a)	Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets (recommended to discuss compliance).	Plan Adoption, Submittal, and Implementation	Section 4.10
x	x	Section 10.2.1	10621(b)		Plan Adoption, Submittal, and Implementation	Section 4.10
x	x	Section 10.4	10621(f)		Plan Adoption, Submittal, and Implementation	Section 4.10
x	x	Sections 10.2.2, 10.3, and 10.5	10642		Plan Adoption, Submittal, and Implementation	Section 4.10
x	x	Section 10.2.2	10642		Plan Adoption, Submittal, and Implementation	Section 4.10
x	x	Section 10.3.2	10642		Plan Adoption, Submittal, and Implementation	Section 4.10
x	x	Section 10.4	10644(a)		Plan Adoption, Submittal, and Implementation	Section 4.10
x	x	Section 10.4	10644(a)(1)		Plan Adoption, Submittal, and Implementation	Section 4.10
x	x	Sections 10.4.1 and 10.4.2	10644(a)(2)		Plan Adoption, Submittal, and Implementation	Section 4.10
x	x	Section 10.5	10645(a)		Plan Adoption, Submittal, and Implementation	Section 4.10
x	x	Section 10.5	10645(b)	Isportage contingency plan with the department, the supplier has or will make the plan available for	Plan Adoption, Submittal, and Implementation	Section 4.10
x	x	Section 10.6	10621(c)		Plan Adoption, Submittal, and Implementation	Section 4.10
x	x	Section 10.7.2	10644(b)		Plan Adoption, Submittal, and Implementation	Section 4.10

etail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
	x	Chapter 1	10615	A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities.	Introduction and Overview	Section 1.1
	x	Chapter 1	10630.5	Each plan shall include a simple description of the supplier's plan including water availability, future requirements, a strategy for meeting needs, and other pertinent information. Additionally, a supplier may also choose to include a simple description at the beginning of each chapter.	Summary	Section 1.3
	x	Section 2.2	10620(b)	Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.	Plan Preparation	Section 5.2
	x	Section 2.6	10620(d)(2)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan Preparation	Section 5.2
	x	Section 2.6.2	10642	Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan and contingency plan.	Plan Preparation	Section 5.2
		Section 2.6, Section 6.1	10631(h)	Retail suppliers will include documentation that they have provided their wholesale supplier(s) - if any - with water use projections from that source.	System Supplies	Section 5.2
	x	Section 2.6	10631(h)	Wholesale suppliers will include documentation that they have provided their urban water suppliers with identification and quantification of the existing and planned sources of water available from the wholesale to the urban supplier during various water year types.	System Supplies	N/A
	х	Section 3.1	10631(a)	Describe the water supplier service area.	System Description	Section 5.3
	х	Section 3.3	10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 5.3
	х	Section 3.4	10631(a)	Provide population projections for 2025, 2030, 2035, 2040 and optionally 2045.	System Description	Section 5.3
	x	Section 3.4.2	10631(a)	Describe other social, economic, and demographic factors affecting the supplier's water management planning.	System Description	Section 5.3
	x	Sections 3.4 and 5.4	10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	Section 5.3
	x	Section 3.5	10631(a)	Describe the land uses within the service area.	System Description	Section 5.3
	x	Section 4.2	10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Section 5.4
	x	Section 4.2.4	10631(d)(3)(C)	Retail suppliers shall provide data to show the distribution loss standards were met.	System Water Use	Section 5.4
	x	Section 4.2.6	10631(d)(4)(A)	In projected water use, include estimates of water savings from adopted codes, plans and other policies or laws.	System Water Use	Section 5.4
	x	Section 4.2.6	10631(d)(4)(B)	Provide citations of codes, standards, ordinances, or plans used to make water use projections.	System Water Use	Section 5.4
	optional	Section 4.3.2.4	10631(d)(3)(A)	Report the distribution system water loss for each of the 5 years preceding the plan update.	System Water Use	Section 5.4
	optional	Section 4.4	10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the supplier.	System Water Use	Section 5.4
	x	Section 4.5	10635(b)	Demands under climate change considerations must be included as part of the drought risk assessment.	System Water Use	Section 5.4
		Chapter 5	10608.20(e)	Retail suppliers shall provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	Baselines and Targets	Section 5.5
		Chapter 5	10608.24(a)	Retail suppliers shall meet their water use target by December 31, 2020.	Baselines and Targets	Section 5.5
	x	Section 5.1	10608.36	Wholesale suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their retail water suppliers achieve targeted water use reductions.	Baselines and Targets	N/A
		Section 5.2	10608.24(d)(2)	If the retail supplier adjusts its compliance GPCD using weather normalization, economic adjustment, or extraordinary events, it shall provide the basis for, and data supporting the adjustment.	Baselines and Targets	Section 5.5
		Section 5.5	10608.22	Retail suppliers' per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use of the 5 year baseline. This does not apply if the suppliers base GPCD is at or below 100.	Baselines and Targets	Section 5.5
		Section 5.5 and Appendix E	10608.4	Retail suppliers shall report on their compliance in meeting their water use targets. The data shall be reported using a standardized form in the SBX7-7 2020 Compliance Form.	Baselines and Targets	Section 5.5
	x	Sections 6.1 and 6.2	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought.	System Supplies	Section 5.7
	x	Sections 6.1	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought, <i>including</i> <i>changes in supply due to climate change</i> .	System Supplies	Section 5.7
		Section 6.1	10631(b)(2)	When multiple sources of water supply are identified, describe the management of each supply in	System Supplies	Section 5.6

	la Water Auth					2020 UWMP Location (Optional
etail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Column for Agency Review Use
stan	X	Section 6.1.1	10631(b)(3)	Describe measures taken to acquire and develop planned sources of water.	System Supplies	Section 5.6
	x	Section 6.2.8	10631(b)	Identify and quantify the existing and planned sources of water available for 2020, 2025, 2030, 2035, 2040 and optionally 2045.	System Supplies	Section 5.6
	x	Section 6.2	10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Section 5.6
	x	Section 6.2.2	10631(b)(4)(A)	Indicate whether a groundwater sustainability plan or groundwater management plan has been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System Supplies	Section 5.6
	х	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	System Supplies	Section 5.6
	x	Section 6.2.2	10631(b)(4)(B)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the supplier has the legal right to pump.	System Supplies	Section 5.6
	x	Section 6.2.2.1	10631(b)(4)(B)	For unadjudicated basins, indicate whether or not the department has identified the basin as a high or medium priority. Describe efforts by the supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions.	System Supplies	Section 5.6
	x	Section 6.2.2.4	10631(b)(4)(C)	Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years	System Supplies	Section 5.6
	x	Section 6.2.2	10631(b)(4)(D)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System Supplies	Section 5.6
	x	Section 6.2.7	10631(c)	Describe the opportunities for exchanges or transfers of water on a short-term or long- term basis.	System Supplies	Section 5.6
	x	Section 6.2.5	10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System Supplies (Recycled Water)	Section 5.6
	x	Section 6.2.5	10633(c)	Describe the recycled water currently being used in the supplier's service area.	System Supplies (Recycled Water)	Section 5.6
	x	Section 6.2.5	10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System Supplies (Recycled Water)	Section 5.6
	x	Section 6.2.5	10633(e)	Describe the projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected.	System Supplies (Recycled Water)	Section 5.6
	x	Section 6.2.5	10633(f)	Describe the actions which may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System Supplies (Recycled Water)	Section 5.6
	x	Section 6.2.5	10633(g)	Provide a plan for optimizing the use of recycled water in the supplier's service area.	System Supplies (Recycled Water)	Section 5.6
	х	Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 5.6
	x	Section 6.2.5	10633(a)	Describe the wastewater collection and treatment systems in the supplier's service area with quantified amount of collection and treatment and the disposal methods.	System Supplies (Recycled Water)	Section 5.6
	x	Section 6.2.8, Section 6.3.7	10631(f)	Describe the expected future water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and for a period of drought lasting 5 consecutive water years.	System Supplies	Section 5.6
	x	Section 6.4 and Appendix O	10631.2(a)	The UWMP must include energy information, as stated in the code, that a supplier can readily obtain.	System Suppliers, Energy Intensity	Section 5.6
	x	Section 7.2	10634	Provide information on the quality of existing sources of water available to the supplier and the manner in which water quality affects water management strategies and supply reliability	Water Supply Reliability Assessment	Section 5.7
	x	Section 7.2.4	10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water Supply Reliability Assessment	Section 5.7
	x	Section 7.3	10635(a)	Service Reliability Assessment: Assess the water supply reliability during normal, dry, and a drought lasting five consecutive water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years.	Water Supply Reliability Assessment	Section 5.7
	x	Section 7.3	10635(b)	Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects.	Water Supply Reliability Assessment	Section 5.7
	x	Section 7.3	10635(b)(1)	Include a description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts 5 consecutive years.	Water Supply Reliability Assessment	Section 5.7
	x	Section 7.3	10635(b)(2)	Include a determination of the reliability of each source of supply under a variety of water shortage conditions.	Water Supply Reliability Assessment	Section 5.7
	x	Section 7.3	10635(b)(3)	Include a comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period.	Water Supply Reliability Assessment	Section 5.7
	x	Section 7.3	10635(b)(4)	Include considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.	Water Supply Reliability Assessment	Section 5.7

ətail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
	x	Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water Shortage Contingency Planning	WSCP
	x	Chapter 8	10632(a)(1)	Provide the analysis of water supply reliability (from Chapter 7 of Guidebook) in the WSCP	Water Shortage Contingency Planning	WSCP, Section 1
	x	Section 8.10	10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the water shortage contingency plan to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Water Shortage Contingency Planning	WSCP, Section 2
	x	Section 8.2	10632(a)(2)(A)	Provide the written decision-making process and other methods that the supplier will use each year to determine its water reliability.	Water Shortage Contingency Planning	WSCP, Section 2
	x	Section 8.2	10632(a)(2)(B)	Provide data and methodology to evaluate the supplier's water reliability for the current year and one dry year pursuant to factors in the code.	Water Shortage Contingency Planning	WSCP, Section 2
	x	Section 8.3	10632(a)(3)(A)	Define six standard water shortage levels of 10, 20, 30, 40, 50 percent shortage and greater than 50 percent shortage. These levels shall be based on supply conditions, including percent reductions in supply, changes in groundwater levels, changes in surface elevation, or other conditions. The shortage levels shall also apply to a catastrophic interruption of supply.	Water Shortage Contingency Planning	WSCP, Section 3
	x	Section 8.3	10632(a)(3)(B)	Suppliers with an existing water shortage contingency plan that uses different water shortage levels must cross reference their categories with the six standard categories.	Water Shortage Contingency Planning	WSCP, Section 3
	x	Section 8.4	10632(a)(4)(A)	Suppliers with water shortage contingency plans that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Water Shortage Contingency Planning	WSCP, Section 4
	x	Section 8.4	10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water Shortage Contingency Planning	WSCP, Section 4
	x	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Water Shortage Contingency Planning	WSCP, Section 4
	x	Section 8.4	10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions are appropriate to local conditions.	Water Shortage Contingency Planning	WSCP, Section 4
	x	Section 8.4	10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	Water Shortage Contingency Planning	WSCP, Section 4
	x	Section 8.4.6	10632.5	The plan shall include a seismic risk assessment and mitigation plan.	Water Shortage Contingency Plan	WSCP, Section 4.6
	x	Section 8.5	10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Water Shortage Contingency Planning	WSCP, Section 5
	x	Section 8.5 and 8.6	10632(a)(5)(B) 10632(a)(5)(C)	Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications.	Water Shortage Contingency Planning	WSCP, Section 5
		Section 8.6	10632(a)(6)	Retail supplier must describe how it will ensure compliance with and enforce provisions of the WSCP.	Water Shortage Contingency Planning	WSCP, Section 6
		Section 8.7	10632(a)(7)(A)	Describe the legal authority that empowers the supplier to enforce shortage response actions.	Water Shortage Contingency Planning	WSCP, Section 7
	x	Section 8.7	10632(a)(7)(B)	Provide a statement that the supplier will declare a water shortage emergency Water Code Chapter 3.	Water Shortage Contingency Planning	WSCP, Section 7
	x	Section 8.7	10632(a)(7)(C)	Provide a statement that the supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency.	Water Shortage Contingency Planning	WSCP, Section 7
	x	Section 8.8	10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	WSCP, Section 8
	x	Section 8.8	10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	WSCP, Section 8
		Section 8.8	10632(a)(8)(C)	Retail suppliers must describe the cost of compliance with Water Code Chapter 3.3: Excessive Residential Water Use During Drought	Water Shortage Contingency Planning	WSCP, Section 8
		Section 8.9	10632(a)(9)	Retail suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance.	Water Shortage Contingency Planning	WSCP, Section 8
		Section 8.11	10632(b)	Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	Water Shortage Contingency Planning	WSCP, Section 11
	x	Sections 8.12 and 10.4	10635(c)	Provide supporting documentation that Water Shortage Contingency Plan has been, or will be, provided to any city or county within which it provides water, no later than 30 days after the submission of the plan to DWR.	Plan Adoption, Submittal, and Implementation	WSCP, Section 12
	x	Section 8.12	10632(c)	Make available the Water Shortage Contingency Plan to customers and any city or county where it provides water within 30 after adopted the plan.	Water Shortage Contingency Planning	WSCP, Section 12
	x	Sections 9.1 and 9.3	10631(e)(2)	Wholesale suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and supplier assistance program.	Demand Management Measures	N/A

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Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP		2020 UWMP Location (Optional Column for Agency Review Use)
x		Sections 9.2 and 9.3	10631(e)(1)	Retail suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand Management Measures	Section 5.9
x		Chapter 10	10608.26(a)	Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets (recommended to discuss compliance).	Plan Adoption, Submittal, and Implementation	Section 5.10
x	x	Section 10.2.1	10621(b)		Plan Adoption, Submittal, and Implementation	Section 5.10
x	x	Section 10.4	10621(f)		Plan Adoption, Submittal, and Implementation	Section 5.10
x	x	Sections 10.2.2, 10.3, and 10.5	10642		Plan Adoption, Submittal, and Implementation	Section 5.10
x	x	Section 10.2.2	10642		Plan Adoption, Submittal, and Implementation	Section 5.10
x	x	Section 10.3.2	10642		Plan Adoption, Submittal, and Implementation	Section 5.10
x	x	Section 10.4	10644(a)		Plan Adoption, Submittal, and Implementation	Section 5.10
x	x	Section 10.4	10644(a)(1)		Plan Adoption, Submittal, and Implementation	Section 5.10
x	x	Sections 10.4.1 and 10.4.2	10644(a)(2)		Plan Adoption, Submittal, and Implementation	Section 5.10
x	x	Section 10.5	10645(a)		Plan Adoption, Submittal, and Implementation	Section 5.10
x	x	Section 10.5	10645(b)	Isportage contingency plan with the department, the supplier has or will make the plan available for	Plan Adoption, Submittal, and Implementation	Section 5.10
x	x	Section 10.6	10621(c)	If supplier is regulated by the Public Utilities Commission, include its plan and contingency plan as part of its general rate case filings.	Plan Adoption, Submittal, and Implementation	Section 5.10
x	x	Section 10.7.2	10644(b)		Plan Adoption, Submittal, and Implementation	Section 5.10

etail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
	x	Chapter 1	10615	A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities.	Introduction and Overview	Section 1.1
	x	Chapter 1	10630.5	Each plan shall include a simple description of the supplier's plan including water availability, future requirements, a strategy for meeting needs, and other pertinent information. Additionally, a supplier may also choose to include a simple description at the beginning of each chapter.	Summary	Section 1.3
	x	Section 2.2	10620(b)	Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.	Plan Preparation	Section 6.2
	x	Section 2.6	10620(d)(2)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan Preparation	Section 6.2
	x	Section 2.6.2	10642	Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan and contingency plan.	Plan Preparation	Section 6.2
		Section 2.6, Section 6.1	10631(h)	Retail suppliers will include documentation that they have provided their wholesale supplier(s) - if any - with water use projections from that source.	System Supplies	Section 6.2
	x	Section 2.6	10631(h)	Wholesale suppliers will include documentation that they have provided their urban water suppliers with identification and quantification of the existing and planned sources of water available from the wholesale to the urban supplier during various water year types.	System Supplies	N/A
	х	Section 3.1	10631(a)	Describe the water supplier service area.	System Description	Section 6.3
	x	Section 3.3	10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 6.3
	х	Section 3.4	10631(a)	Provide population projections for 2025, 2030, 2035, 2040 and optionally 2045.	System Description	Section 6.3
	x	Section 3.4.2	10631(a)	Describe other social, economic, and demographic factors affecting the supplier's water management planning.	System Description	Section 6.3
	x	Sections 3.4 and 5.4	10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	Section 6.3
	х	Section 3.5	10631(a)	Describe the land uses within the service area.	System Description	Section 6.3
	x	Section 4.2	10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Section 6.4
	х	Section 4.2.4	10631(d)(3)(C)	Retail suppliers shall provide data to show the distribution loss standards were met.	System Water Use	Section 6.4
	x	Section 4.2.6	10631(d)(4)(A)	In projected water use, include estimates of water savings from adopted codes, plans and other policies or laws.	System Water Use	Section 6.4
	x	Section 4.2.6	10631(d)(4)(B)	Provide citations of codes, standards, ordinances, or plans used to make water use projections.	System Water Use	Section 6.4
	optional	Section 4.3.2.4	10631(d)(3)(A)	Report the distribution system water loss for each of the 5 years preceding the plan update.	System Water Use	Section 6.4
	optional	Section 4.4	10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the supplier.	System Water Use	Section 6.4
	x	Section 4.5	10635(b)	Demands under climate change considerations must be included as part of the drought risk assessment.	System Water Use	Section 6.4
		Chapter 5	10608.20(e)	Retail suppliers shall provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	Baselines and Targets	Section 6.5
		Chapter 5	10608.24(a)	Retail suppliers shall meet their water use target by December 31, 2020.	Baselines and Targets	Section 6.5
	x	Section 5.1	10608.36	Wholesale suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their retail water suppliers achieve targeted water use reductions.	Baselines and Targets	N/A
		Section 5.2	10608.24(d)(2)	If the retail supplier adjusts its compliance GPCD using weather normalization, economic adjustment, or extraordinary events, it shall provide the basis for, and data supporting the adjustment.	Baselines and Targets	Section 6.5
		Section 5.5	10608.22	Retail suppliers' per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use of the 5 year baseline. This does not apply if the suppliers base GPCD is at or below 100.	Baselines and Targets	Section 6.5
		Section 5.5 and Appendix E	10608.4	Retail suppliers shall report on their compliance in meeting their water use targets. The data shall be reported using a standardized form in the SBX7-7 2020 Compliance Form.	Baselines and Targets	Section 6.5
	x	Sections 6.1 and 6.2	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought.	System Supplies	Section 6.7
	x	Sections 6.1	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought, <i>including</i> <i>changes in supply due to climate change.</i>	System Supplies	Section 6.7
	v	Section 6.1	10631(b)(2)	When multiple sources of water supply are identified, describe the management of each supply in relationship to other identified supplies.	System Supplies	Section 6.6

		2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional
letail	Wholesale					Column for Agency Review Use)
	х	Section 6.1.1	10631(b)(3)	Describe measures taken to acquire and develop planned sources of water. Identify and quantify the existing and planned sources of water available for 2020, 2025, 2030,	System Supplies	Section 6.6
	x	Section 6.2.8	10631(b)	2035, 2040 and optionally 2045.	System Supplies	Section 6.6
	x	Section 6.2	10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Section 6.6
	x	Section 6.2.2	10631(b)(4)(A)	Indicate whether a groundwater sustainability plan or groundwater management plan has been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System Supplies	Section 6.6
	х	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	System Supplies	Section 6.6
	x	Section 6.2.2	10631(b)(4)(B)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the supplier has the legal right to pump.	System Supplies	Section 6.6
	x	Section 6.2.2.1	10631(b)(4)(B)	For unadjudicated basins, indicate whether or not the department has identified the basin as a high or medium priority. Describe efforts by the supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions.	System Supplies	Section 6.6
	x	Section 6.2.2.4	10631(b)(4)(C)	Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years	System Supplies	Section 6.6
	x	Section 6.2.2	10631(b)(4)(D)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System Supplies	Section 6.6
	x	Section 6.2.7	10631(c)	Describe the opportunities for exchanges or transfers of water on a short-term or long- term basis.	System Supplies	Section 6.6
	x	Section 6.2.5	10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System Supplies (Recycled Water)	Section 6.6
	x	Section 6.2.5	10633(c)	Describe the recycled water currently being used in the supplier's service area.	System Supplies (Recycled Water)	Section 6.6
	x	Section 6.2.5	10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System Supplies (Recycled Water)	Section 6.6
	x	Section 6.2.5	10633(e)	Describe the projected use of recycled water within the supplier's service area at the end of 5, 10, 15 and 20 years and a description of the actual use of recycled water in comparison to uses	System Supplies (Recycled Water)	Section 6.6
	x	Section 6.2.5	10633(f)	Describe the actions which may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System Supplies (Recycled Water)	Section 6.6
	x	Section 6.2.5	10633(g)	Provide a plan for optimizing the use of recycled water in the supplier's service area.	System Supplies (Recycled Water)	Section 6.6
	x	Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 6.6
	x	Section 6.2.5	10633(a)	Describe the wastewater collection and treatment systems in the supplier's service area with quantified amount of collection and treatment and the disposal methods.	System Supplies (Recycled Water)	Section 6.6
	x	Section 6.2.8, Section 6.3.7	10631(f)	Describe the expected future water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and for a period of drought lasting 5 consecutive water years.	System Supplies	Section 6.6
	x	Section 6.4 and Appendix O	10631.2(a)	The UWMP must include energy information, as stated in the code, that a supplier can readily obtain.	System Suppliers, Energy Intensity	Section 6.6
	x	Section 7.2	10634	Provide information on the quality of existing sources of water available to the supplier and the manner in which water quality affects water management strategies and supply reliability	Water Supply Reliability Assessment	Section 6.7
	x	Section 7.2.4	10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water Supply Reliability Assessment	Section 6.7
	x	Section 7.3	10635(a)	Service Reliability Assessment: Assess the water supply reliability during normal, dry, and a drought lasting five consecutive water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years.	Water Supply Reliability Assessment	Section 6.7
	x	Section 7.3	10635(b)	Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects.	Water Supply Reliability Assessment	Section 6.7
	x	Section 7.3	10635(b)(1)	Include a description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts 5 consecutive years.	Water Supply Reliability Assessment	Section 6.7
	x	Section 7.3	10635(b)(2)	Include a determination of the reliability of each source of supply under a variety of water shortage conditions.	Water Supply Reliability Assessment	Section 6.7
	x	Section 7.3	10635(b)(3)		Water Supply Reliability Assessment	Section 6.7
	x	Section 7.3	10635(b)(4)	Include considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.	Water Supply Reliability Assessment	Section 6.7

						2020 UWMP Location (Optional
ətail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Column for Agency Review Use
	x	Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water Shortage Contingency Planning	WSCP
	x	Chapter 8	10632(a)(1)	Provide the analysis of water supply reliability (from Chapter 7 of Guidebook) in the WSCP	Water Shortage Contingency Planning	WSCP, Section 1
	x	Section 8.10	10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the water shortage contingency plan to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Water Shortage Contingency Planning	WSCP, Section 2
	x	Section 8.2	10632(a)(2)(A)	Provide the written decision-making process and other methods that the supplier will use each year to determine its water reliability.	Water Shortage Contingency Planning	WSCP, Section 2
	x	Section 8.2	10632(a)(2)(B)	Provide data and methodology to evaluate the supplier's water reliability for the current year and one dry year pursuant to factors in the code.	Water Shortage Contingency Planning	WSCP, Section 2
	x	Section 8.3	10632(a)(3)(A)	Define six standard water shortage levels of 10, 20, 30, 40, 50 percent shortage and greater than 50 percent shortage. These levels shall be based on supply conditions, including percent reductions in supply, changes in groundwater levels, changes in surface elevation, or other conditions. The shortage levels shall also apply to a catastrophic interruption of supply.	Water Shortage Contingency Planning	WSCP, Section 3
	x	Section 8.3	10632(a)(3)(B)	Suppliers with an existing water shortage contingency plan that uses different water shortage levels must cross reference their categories with the six standard categories.	Water Shortage Contingency Planning	WSCP, Section 3
	x	Section 8.4	10632(a)(4)(A)	Suppliers with water shortage contingency plans that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Water Shortage Contingency Planning	WSCP, Section 4
	x	Section 8.4	10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water Shortage Contingency Planning	WSCP, Section 4
	x	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Water Shortage Contingency Planning	WSCP, Section 4
	x	Section 8.4	10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions are appropriate to local conditions.	Water Shortage Contingency Planning	WSCP, Section 4
	x	Section 8.4	10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	Water Shortage Contingency Planning	WSCP, Section 4
	x	Section 8.4.6	10632.5	The plan shall include a seismic risk assessment and mitigation plan.	Water Shortage Contingency Plan	WSCP, Section 4.6
	x	Section 8.5	10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Water Shortage Contingency Planning	WSCP, Section 5
	x	Section 8.5 and 8.6	10632(a)(5)(B) 10632(a)(5)(C)	Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications.	Water Shortage Contingency Planning	WSCP, Section 5
		Section 8.6	10632(a)(6)	Retail supplier must describe how it will ensure compliance with and enforce provisions of the WSCP.	Water Shortage Contingency Planning	WSCP, Section 6
		Section 8.7	10632(a)(7)(A)	Describe the legal authority that empowers the supplier to enforce shortage response actions.	Water Shortage Contingency Planning	WSCP, Section 7
	x	Section 8.7	10632(a)(7)(B)	Provide a statement that the supplier will declare a water shortage emergency Water Code Chapter 3.	Water Shortage Contingency Planning	WSCP, Section 7
	x	Section 8.7	10632(a)(7)(C)	Provide a statement that the supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency.	Water Shortage Contingency Planning	WSCP, Section 7
	x	Section 8.8	10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	WSCP, Section 8
	x	Section 8.8	10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	WSCP, Section 8
		Section 8.8	10632(a)(8)(C)	Retail suppliers must describe the cost of compliance with Water Code Chapter 3.3: Excessive Residential Water Use During Drought Datail experience must describe the application and exactling providements and exactly the test.	Water Shortage Contingency Planning	WSCP, Section 8
		Section 8.9	10632(a)(9)	Retail suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance.	Water Shortage Contingency Planning	WSCP, Section 8
		Section 8.11	10632(b)	Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	Water Shortage Contingency Planning	WSCP, Section 11
	x	Sections 8.12 and 10.4	10635(c)	Provide supporting documentation that Water Shortage Contingency Plan has been, or will be, provided to any city or county within which it provides water, no later than 30 days after the submission of the plan to DWR.	Plan Adoption, Submittal, and Implementation	WSCP, Section 12
	x	Section 8.12	10632(c)	Make available the Water Shortage Contingency Plan to customers and any city or county where it provides water within 30 after adopted the plan.	Water Shortage Contingency Planning	WSCP, Section 12
	v	Sections 9.1 and 9.3	10631(e)(2)	Wholesale suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and supplier assistance program.	Demand Management Measures	N/A

Desert V	ater Agency					
Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x		Sections 9.2 and 9.3	10631(e)(1)	Retail suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand Management Measures	Section 6.9
x		Chapter 10	10608.26(a)	Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets (recommended to discuss compliance).	Plan Adoption, Submittal, and Implementation	Section 6.10
x	x	Section 10.2.1	10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. Reported in Table 10-1.	Plan Adoption, Submittal, and Implementation	Section 6.10
x	x	Section 10.4	10621(f)	Each urban water supplier shall update and submit its 2020 plan to the department by July 1, 2021.	Plan Adoption, Submittal, and Implementation	Section 6.10
x	x	Sections 10.2.2, 10.3, and 10.5	10642	Provide supporting documentation that the urban water supplier made the plan and contingency plan available for public inspection, published notice of the public hearing, and held a public hearing about the plan and contingency plan.	Plan Adoption, Submittal, and Implementation	Section 6.10
x	x	Section 10.2.2	10642	The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water.	Plan Adoption, Submittal, and Implementation	Section 6.10
x	x	Section 10.3.2	10642	Provide supporting documentation that the plan and contingency plan has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	Section 6.10
x	x	Section 10.4	10644(a)	Provide supporting documentation that the urban water supplier has submitted this UWMP to the California State Library.	Plan Adoption, Submittal, and Implementation	Section 6.10
x	x	Section 10.4	10644(a)(1)	Provide supporting documentation that the urban water supplier has submitted this UWMP to any city or county within which the supplier provides water no later than 30 days after adoption.	Plan Adoption, Submittal, and Implementation	Section 6.10
x	x	Sections 10.4.1 and 10.4.2	10644(a)(2)	The plan, or amendments to the plan, submitted to the department shall be submitted electronically.	Plan Adoption, Submittal, and Implementation	Section 6.10
x	x	Section 10.5	10645(a)	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 6.10
x	x	Section 10.5	10645(b)	Provide supporting documentation that, not later than 30 days after filing a copy of its water shortage contingency plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 6.10
x	x	Section 10.6	10621(c)	If supplier is regulated by the Public Utilities Commission, include its plan and contingency plan as part of its general rate case filings.	Plan Adoption, Submittal, and Implementation	Section 6.10
x	x	Section 10.7.2	10644(b)	If revised, submit a copy of the water shortage contingency plan to DWR within 30 days of adoption.	Plan Adoption, Submittal, and Implementation	Section 6.10

etail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
	x	Chapter 1	10615	A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities.	Introduction and Overview	Section 1.1
	x	Chapter 1	10630.5	Each plan shall include a simple description of the supplier's plan including water availability, future requirements, a strategy for meeting needs, and other pertinent information. Additionally, a supplier may also choose to include a simple description at the beginning of each chapter.	Summary	Section 1.3
	x	Section 2.2	10620(b)	Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.	Plan Preparation	Section 7.2
	x	Section 2.6	10620(d)(2)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan Preparation	Section 7.2
	x	Section 2.6.2	10642	Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan and contingency plan.	Plan Preparation	Section 7.2
		Section 2.6, Section 6.1	10631(h)	Retail suppliers will include documentation that they have provided their wholesale supplier(s) - if any - with water use projections from that source.	System Supplies	Section 7.2
	x	Section 2.6	10631(h)	Wholesale suppliers will include documentation that they have provided their urban water suppliers with identification and quantification of the existing and planned sources of water available from the wholesale to the urban supplier during various water year types.	System Supplies	N/A
	x	Section 3.1	10631(a)	Describe the water supplier service area.	System Description	Section 7.3
	x	Section 3.3	10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 7.3
	х	Section 3.4	10631(a)	Provide population projections for 2025, 2030, 2035, 2040 and optionally 2045.	System Description	Section 7.3
	x	Section 3.4.2	10631(a)	Describe other social, economic, and demographic factors affecting the supplier's water management planning.	System Description	Section 7.3
	x	Sections 3.4 and 5.4	10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	Section 7.3
	х	Section 3.5	10631(a)	Describe the land uses within the service area.	System Description	Section 7.3
	x	Section 4.2	10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Section 7.4
	х	Section 4.2.4	10631(d)(3)(C)	Retail suppliers shall provide data to show the distribution loss standards were met.	System Water Use	Section 7.4
	x	Section 4.2.6	10631(d)(4)(A)	In projected water use, include estimates of water savings from adopted codes, plans and other policies or laws.	System Water Use	Section 7.4
	x	Section 4.2.6	10631(d)(4)(B)	Provide citations of codes, standards, ordinances, or plans used to make water use projections.	System Water Use	Section 7.4
	optional	Section 4.3.2.4	10631(d)(3)(A)	Report the distribution system water loss for each of the 5 years preceding the plan update.	System Water Use	Section 7.4
	optional	Section 4.4	10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the supplier.	System Water Use	Section 7.4
	x	Section 4.5	10635(b)	Demands under climate change considerations must be included as part of the drought risk assessment.	System Water Use	Section 7.4
		Chapter 5	10608.20(e)	Retail suppliers shall provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	Baselines and Targets	Section 7.5
		Chapter 5	10608.24(a)	Retail suppliers shall meet their water use target by December 31, 2020.	Baselines and Targets	Section 7.5
	x	Section 5.1	10608.36	Wholesale suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their retail water suppliers achieve targeted water use reductions.	Baselines and Targets	N/A
		Section 5.2	10608.24(d)(2)	If the retail supplier adjusts its compliance GPCD using weather normalization, economic adjustment, or extraordinary events, it shall provide the basis for, and data supporting the adjustment.	Baselines and Targets	Section 7.5
		Section 5.5	10608.22	Retail suppliers' per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use of the 5 year baseline. This does not apply if the suppliers base GPCD is at or below 100.	Baselines and Targets	Section 7.5
		Section 5.5 and Appendix E	10608.4	Retail suppliers shall report on their compliance in meeting their water use targets. The data shall be reported using a standardized form in the SBX7-7 2020 Compliance Form.	Baselines and Targets	Section 7.5
	x	Sections 6.1 and 6.2	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought.	System Supplies	Section 7.7
	x	Sections 6.1	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought, <i>including</i> <i>changes in supply due to climate change.</i>	System Supplies	Section 7.7
	v	Section 6.1	10631(b)(2)	When multiple sources of water supply are identified, describe the management of each supply in relationship to other identified supplies.	System Supplies	Section 7.6

etail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
	x	Section 6.1.1	10631(b)(3)	Describe measures taken to acquire and develop planned sources of water.	System Supplies	Section 7.6
	x	Section 6.2.8	10631(b)	Identify and quantify the existing and planned sources of water available for 2020, 2025, 2030, 2035, 2040 and optionally 2045.	System Supplies	Section 7.6
	x	Section 6.2	10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Section 7.6
	x	Section 6.2.2	10631(b)(4)(A)	Indicate whether a groundwater sustainability plan or groundwater management plan has been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System Supplies	Section 7.6
	х	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	System Supplies	Section 7.6
	x	Section 6.2.2	10631(b)(4)(B)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the supplier has the legal right to pump.	System Supplies	Section 7.6
	x	Section 6.2.2.1	10631(b)(4)(B)	For unadjudicated basins, indicate whether or not the department has identified the basin as a high or medium priority. Describe efforts by the supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions.	System Supplies	Section 7.6
	x	Section 6.2.2.4	10631(b)(4)(C)	Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years	System Supplies	Section 7.6
	x	Section 6.2.2	10631(b)(4)(D)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System Supplies	Section 7.6
	x	Section 6.2.7	10631(c)	Describe the opportunities for exchanges or transfers of water on a short-term or long- term basis.	System Supplies	Section 7.6
	x	Section 6.2.5	10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System Supplies (Recycled Water)	Section 7.6
	x	Section 6.2.5	10633(c)	Describe the recycled water currently being used in the supplier's service area.	System Supplies (Recycled Water)	Section 7.6
	x	Section 6.2.5	10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System Supplies (Recycled Water)	Section 7.6
	x	Section 6.2.5	10633(e)	Describe the projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected.	System Supplies (Recycled Water)	Section 7.6
	x	Section 6.2.5	10633(f)	Describe the actions which may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System Supplies (Recycled Water)	Section 7.6
	x	Section 6.2.5	10633(g)	Provide a plan for optimizing the use of recycled water in the supplier's service area.	System Supplies (Recycled Water)	Section 7.6
	х	Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 7.6
	x	Section 6.2.5	10633(a)	Describe the wastewater collection and treatment systems in the supplier's service area with quantified amount of collection and treatment and the disposal methods.	System Supplies (Recycled Water)	Section 7.6
	x	Section 6.2.8, Section 6.3.7	10631(f)	Describe the expected future water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and for a period of drought lasting 5 consecutive water years.	System Supplies	Section 7.6
	x	Section 6.4 and Appendix O	10631.2(a)	The UWMP must include energy information, as stated in the code, that a supplier can readily obtain.	System Suppliers, Energy Intensity	Section 7.6
	x	Section 7.2	10634	Provide information on the quality of existing sources of water available to the supplier and the manner in which water quality affects water management strategies and supply reliability	Water Supply Reliability Assessment	Section 7.7
	x	Section 7.2.4	10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water Supply Reliability Assessment	Section 7.7
	x	Section 7.3	10635(a)	Service Reliability Assessment: Assess the water supply reliability during normal, dry, and a drought lasting five consecutive water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years.	Water Supply Reliability Assessment	Section 7.7
	x	Section 7.3	10635(b)	Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects.	Water Supply Reliability Assessment	Section 7.7
	x	Section 7.3	10635(b)(1)	Include a description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts 5 consecutive years.	Water Supply Reliability Assessment	Section 7.7
	x	Section 7.3	10635(b)(2)	Include a determination of the reliability of each source of supply under a variety of water shortage conditions.	Water Supply Reliability Assessment	Section 7.7
	x	Section 7.3	10635(b)(3)	Include a comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period.	Water Supply Reliability Assessment	Section 7.7
	x	Section 7.3	10635(b)(4)	Include considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.	Water Supply Reliability Assessment	Section 7.7

etail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
	x	Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water Shortage Contingency Planning	WSCP
	x	Chapter 8	10632(a)(1)	Provide the analysis of water supply reliability (from Chapter 7 of Guidebook) in the WSCP	Water Shortage Contingency Planning	WSCP, Section 1
	x	Section 8.10	10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the water shortage contingency plan to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Water Shortage Contingency Planning	WSCP, Section 2
	x	Section 8.2	10632(a)(2)(A)	Provide the written decision-making process and other methods that the supplier will use each year to determine its water reliability.	Water Shortage Contingency Planning	WSCP, Section 2
	x	Section 8.2	10632(a)(2)(B)	Provide data and methodology to evaluate the supplier's water reliability for the current year and one dry year pursuant to factors in the code.	Water Shortage Contingency Planning	WSCP, Section 2
	x	Section 8.3	10632(a)(3)(A)	Define six standard water shortage levels of 10, 20, 30, 40, 50 percent shortage and greater than 50 percent shortage. These levels shall be based on supply conditions, including percent reductions in supply, changes in groundwater levels, changes in surface elevation, or other conditions. The shortage levels shall also apply to a catastrophic interruption of supply.	Water Shortage Contingency Planning	WSCP, Section 3
	x	Section 8.3	10632(a)(3)(B)	Suppliers with an existing water shortage contingency plan that uses different water shortage levels must cross reference their categories with the six standard categories.	Water Shortage Contingency Planning	WSCP, Section 3
	x	Section 8.4	10632(a)(4)(A)	Suppliers with water shortage contingency plans that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Water Shortage Contingency Planning	WSCP, Section 4
	x	Section 8.4	10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water Shortage Contingency Planning	WSCP, Section 4
	x	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Water Shortage Contingency Planning	WSCP, Section 4
	x	Section 8.4	10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions are appropriate to local conditions.	Water Shortage Contingency Planning	WSCP, Section 4
	x	Section 8.4	10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	Water Shortage Contingency Planning	WSCP, Section 4
	x	Section 8.4.6	10632.5	The plan shall include a seismic risk assessment and mitigation plan.	Water Shortage Contingency Plan	WSCP, Section 4.6
	x	Section 8.5	10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Water Shortage Contingency Planning	WSCP, Section 5
	x	Section 8.5 and 8.6	10632(a)(5)(B) 10632(a)(5)(C)	Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications.	Water Shortage Contingency Planning	WSCP, Section 5
		Section 8.6	10632(a)(6)	Retail supplier must describe how it will ensure compliance with and enforce provisions of the WSCP.	Water Shortage Contingency Planning	WSCP, Section 6
		Section 8.7	10632(a)(7)(A)	Describe the legal authority that empowers the supplier to enforce shortage response actions.	Water Shortage Contingency Planning	WSCP, Section 7
	x	Section 8.7	10632(a)(7)(B)	Provide a statement that the supplier will declare a water shortage emergency Water Code Chapter 3.	Water Shortage Contingency Planning	WSCP, Section 7
	x	Section 8.7	10632(a)(7)(C)	Provide a statement that the supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency.	Water Shortage Contingency Planning	WSCP, Section 7
	x	Section 8.8	10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	WSCP, Section 8
	x	Section 8.8	10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	WSCP, Section 8
		Section 8.8	10632(a)(8)(C)	Retail suppliers must describe the cost of compliance with Water Code Chapter 3.3: Excessive Residential Water Use During Drought	Water Shortage Contingency Planning	WSCP, Section 8
		Section 8.9	10632(a)(9)	Retail suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance.	Water Shortage Contingency Planning	WSCP, Section 8
		Section 8.11	10632(b)	Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	Water Shortage Contingency Planning	WSCP, Section 11
	x	Sections 8.12 and 10.4	10635(c)	Provide supporting documentation that Water Shortage Contingency Plan has been, or will be, provided to any city or county within which it provides water, no later than 30 days after the submission of the plan to DWR.	Plan Adoption, Submittal, and Implementation	WSCP, Section 12
	x	Section 8.12	10632(c)	Make available the Water Shortage Contingency Plan to customers and any city or county where it provides water within 30 after adopted the plan.	Water Shortage Contingency Planning	WSCP, Section 12
	x	Sections 9.1 and 9.3	10631(e)(2)	Wholesale suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and supplier assistance program.	Demand Management Measures	N/A

Indio Wa	ter Authority					
Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x		Sections 9.2 and 9.3	10631(e)(1)	Retail suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand Management Measures	Section 7.9
x		Chapter 10	10608.26(a)	Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets (recommended to discuss compliance).	Plan Adoption, Submittal, and Implementation	Section 7.10
x	x	Section 10.2.1	10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. Reported in Table 10-1.	Plan Adoption, Submittal, and Implementation	Section 7.10
x	x	Section 10.4	10621(f)	Each urban water supplier shall update and submit its 2020 plan to the department by July 1, 2021.	Plan Adoption, Submittal, and Implementation	Section 7.10
x	x	Sections 10.2.2, 10.3, and 10.5	10642	Provide supporting documentation that the urban water supplier made the plan and contingency plan available for public inspection, published notice of the public hearing, and held a public hearing about the plan and contingency plan.	Plan Adoption, Submittal, and Implementation	Section 7.10
x	x	Section 10.2.2	10642		Plan Adoption, Submittal, and Implementation	Section 7.10
x	x	Section 10.3.2	10642	Provide supporting documentation that the plan and contingency plan has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	Section 7.10
x	x	Section 10.4	10644(a)	Provide supporting documentation that the urban water supplier has submitted this UWMP to the California State Library.	Plan Adoption, Submittal, and Implementation	Section 7.10
x	x	Section 10.4	10644(a)(1)	Provide supporting documentation that the urban water supplier has submitted this UWMP to any city or county within which the supplier provides water no later than 30 days after adoption.	Plan Adoption, Submittal, and Implementation	Section 7.10
x	x	Sections 10.4.1 and 10.4.2	10644(a)(2)	The plan, or amendments to the plan, submitted to the department shall be submitted electronically.	Plan Adoption, Submittal, and Implementation	Section 7.10
x	x	Section 10.5	10645(a)	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 7.10
x	x	Section 10.5	10645(b)	Provide supporting documentation that, not later than 30 days after filing a copy of its water shortage contingency plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 7.10
x	x	Section 10.6	10621(c)	If supplier is regulated by the Public Utilities Commission, include its plan and contingency plan as part of its general rate case filings.	Plan Adoption, Submittal, and Implementation	Section 7.10
x	x	Section 10.7.2	10644(b)	If revised, submit a copy of the water shortage contingency plan to DWR within 30 days of adoption.	Plan Adoption, Submittal, and Implementation	Section 7.10

etail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
	x	Chapter 1	10615	A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities.	Introduction and Overview	Section 1.1
	x	Chapter 1	10630.5	Each plan shall include a simple description of the supplier's plan including water availability, future requirements, a strategy for meeting needs, and other pertinent information. Additionally, a supplier may also choose to include a simple description at the beginning of each chapter.	Summary	Section 1.3
	x	Section 2.2	10620(b)	Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.	Plan Preparation	Section 8.2
	x	Section 2.6	10620(d)(2)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan Preparation	Section 8.2
	x	Section 2.6.2	10642	Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan and contingency plan.	Plan Preparation	Section 8.2
		Section 2.6, Section 6.1	10631(h)	Retail suppliers will include documentation that they have provided their wholesale supplier(s) - if any - with water use projections from that source.	System Supplies	Section 8.2
	x	Section 2.6	10631(h)	Wholesale suppliers will include documentation that they have provided their urban water suppliers with identification and quantification of the existing and planned sources of water available from the wholesale to the urban supplier during various water year types.	System Supplies	N/A
	х	Section 3.1	10631(a)	Describe the water supplier service area.	System Description	Section 8.3
	х	Section 3.3	10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 8.3
	х	Section 3.4	10631(a)	Provide population projections for 2025, 2030, 2035, 2040 and optionally 2045.	System Description	Section 8.3
	x	Section 3.4.2	10631(a)	Describe other social, economic, and demographic factors affecting the supplier's water management planning.	System Description	Section 8.3
	x	Sections 3.4 and 5.4	10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	Section 8.3
	х	Section 3.5	10631(a)	Describe the land uses within the service area.	System Description	Section 8.3
	x	Section 4.2	10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Section 8.4
	х	Section 4.2.4	10631(d)(3)(C)	Retail suppliers shall provide data to show the distribution loss standards were met.	System Water Use	Section 8.4
	x	Section 4.2.6	10631(d)(4)(A)	In projected water use, include estimates of water savings from adopted codes, plans and other policies or laws.	System Water Use	Section 8.4
	x	Section 4.2.6	10631(d)(4)(B)	Provide citations of codes, standards, ordinances, or plans used to make water use projections.	System Water Use	Section 8.4
	optional	Section 4.3.2.4	10631(d)(3)(A)	Report the distribution system water loss for each of the 5 years preceding the plan update.	System Water Use	Section 8.4
	optional	Section 4.4	10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the supplier.	System Water Use	Section 8.4
	x	Section 4.5	10635(b)	Demands under climate change considerations must be included as part of the drought risk assessment.	System Water Use	Section 8.4
		Chapter 5	10608.20(e)	Retail suppliers shall provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	Baselines and Targets	Section 8.5
		Chapter 5	10608.24(a)	Retail suppliers shall meet their water use target by December 31, 2020.	Baselines and Targets	Section 8.5
	x	Section 5.1	10608.36	Wholesale suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their retail water suppliers achieve targeted water use reductions.	Baselines and Targets	N/A
		Section 5.2	10608.24(d)(2)	If the retail supplier adjusts its compliance GPCD using weather normalization, economic adjustment, or extraordinary events, it shall provide the basis for, and data supporting the adjustment.	Baselines and Targets	Section 8.5
		Section 5.5	10608.22	Retail suppliers' per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use of the 5 year baseline. This does not apply if the suppliers base GPCD is at or below 100.	Baselines and Targets	Section 8.5
		Section 5.5 and Appendix E	10608.4	Retail suppliers shall report on their compliance in meeting their water use targets. The data shall be reported using a standardized form in the SBX7-7 2020 Compliance Form.	Baselines and Targets	Section 8.5
	x	Sections 6.1 and 6.2	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought.	System Supplies	Section 8.7
	x	Sections 6.1	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought, <i>including</i> <i>changes in supply due to climate change.</i>	System Supplies	Section 8.7
	x	Section 6.1	10631(b)(2)	When multiple sources of water supply are identified, describe the management of each supply in relationship to other identified supplies.	System Supplies	Section 8.6

		2020 Guidebook Location		Summary on Applice to LIMMP	Subject	2020 UWMP Location (Optional
etail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Column for Agency Review Use
	x	Section 6.1.1	10631(b)(3)	Describe measures taken to acquire and develop planned sources of water.	System Supplies	Section 8.6
	x	Section 6.2.8	10631(b)	Identify and quantify the existing and planned sources of water available for 2020, 2025, 2030, 2035, 2040 and optionally 2045.	System Supplies	Section 8.6
	x	Section 6.2	10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Section 8.6
	x	Section 6.2.2	10631(b)(4)(A)	Indicate whether a groundwater sustainability plan or groundwater management plan has been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System Supplies	Section 8.6
	х	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	System Supplies	Section 8.6
	x	Section 6.2.2	10631(b)(4)(B)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the supplier has the legal right to pump.	System Supplies	Section 8.6
	x	Section 6.2.2.1	10631(b)(4)(B)	For unadjudicated basins, indicate whether or not the department has identified the basin as a high or medium priority. Describe efforts by the supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions.	System Supplies	Section 8.6
	x	Section 6.2.2.4	10631(b)(4)(C)	Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years	System Supplies	Section 8.6
	x	Section 6.2.2	10631(b)(4)(D)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System Supplies	Section 8.6
	x	Section 6.2.7	10631(c)	Describe the opportunities for exchanges or transfers of water on a short-term or long- term basis.	System Supplies	Section 8.6
	x	Section 6.2.5	10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System Supplies (Recycled Water)	Section 8.6
	x	Section 6.2.5	10633(c)	Describe the recycled water currently being used in the supplier's service area.	System Supplies (Recycled Water)	Section 8.6
	x	Section 6.2.5	10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System Supplies (Recycled Water)	Section 8.6
	x	Section 6.2.5	10633(e)	Describe the projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected.	System Supplies (Recycled Water)	Section 8.6
	x	Section 6.2.5	10633(f)	Describe the actions which may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System Supplies (Recycled Water)	Section 8.6
	x	Section 6.2.5	10633(g)	Provide a plan for optimizing the use of recycled water in the supplier's service area.	System Supplies (Recycled Water)	Section 8.6
	х	Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 8.6
	x	Section 6.2.5	10633(a)	Describe the wastewater collection and treatment systems in the supplier's service area with quantified amount of collection and treatment and the disposal methods.	System Supplies (Recycled Water)	Section 8.6
	x	Section 6.2.8, Section 6.3.7	10631(f)	Describe the expected future water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and for a period of drought lasting 5 consecutive water years.	System Supplies	Section 8.6
	x	Section 6.4 and Appendix O	10631.2(a)	The UWMP must include energy information, as stated in the code, that a supplier can readily obtain.	System Suppliers, Energy Intensity	Section 8.6
	x	Section 7.2	10634	Provide information on the quality of existing sources of water available to the supplier and the manner in which water quality affects water management strategies and supply reliability	Water Supply Reliability Assessment	Section 8.7
	x	Section 7.2.4	10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water Supply Reliability Assessment	Section 8.7
	x	Section 7.3	10635(a)	Service Reliability Assessment: Assess the water supply reliability during normal, dry, and a drought lasting five consecutive water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years.	Water Supply Reliability Assessment	Section 8.7
	x	Section 7.3	10635(b)	Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects.	Water Supply Reliability Assessment	Section 8.7
	x	Section 7.3	10635(b)(1)	Include a description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts 5 consecutive years.	Water Supply Reliability Assessment	Section 8.7
	x	Section 7.3	10635(b)(2)	Include a determination of the reliability of each source of supply under a variety of water shortage conditions.	Water Supply Reliability Assessment	Section 8.7
	x	Section 7.3	10635(b)(3)	Include a comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period.	Water Supply Reliability Assessment	Section 8.7
	x	Section 7.3	10635(b)(4)	Include considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.	Water Supply Reliability Assessment	Section 8.7

ətail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
	x	Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water Shortage Contingency Planning	WSCP
	x	Chapter 8	10632(a)(1)	Provide the analysis of water supply reliability (from Chapter 7 of Guidebook) in the WSCP	Water Shortage Contingency Planning	WSCP, Section 1
	x	Section 8.10	10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the water shortage contingency plan to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Water Shortage Contingency Planning	WSCP, Section 2
	x	Section 8.2	10632(a)(2)(A)	Provide the written decision-making process and other methods that the supplier will use each year to determine its water reliability.	Water Shortage Contingency Planning	WSCP, Section 2
	x	Section 8.2	10632(a)(2)(B)	Provide data and methodology to evaluate the supplier's water reliability for the current year and one dry year pursuant to factors in the code.	Water Shortage Contingency Planning	WSCP, Section 2
	x	Section 8.3	10632(a)(3)(A)	Define six standard water shortage levels of 10, 20, 30, 40, 50 percent shortage and greater than 50 percent shortage. These levels shall be based on supply conditions, including percent reductions in supply, changes in groundwater levels, changes in surface elevation, or other conditions. The shortage levels shall also apply to a catastrophic interruption of supply.	Water Shortage Contingency Planning	WSCP, Section 3
	x	Section 8.3	10632(a)(3)(B)	Suppliers with an existing water shortage contingency plan that uses different water shortage levels must cross reference their categories with the six standard categories.	Water Shortage Contingency Planning	WSCP, Section 3
	x	Section 8.4	10632(a)(4)(A)	Suppliers with water shortage contingency plans that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Water Shortage Contingency Planning	WSCP, Section 4
	x	Section 8.4	10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water Shortage Contingency Planning	WSCP, Section 4
	x	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Water Shortage Contingency Planning	WSCP, Section 4
	x	Section 8.4	10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions are appropriate to local conditions.	Water Shortage Contingency Planning	WSCP, Section 4
	x	Section 8.4	10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	Water Shortage Contingency Planning	WSCP, Section 4
	x	Section 8.4.6	10632.5	The plan shall include a seismic risk assessment and mitigation plan.	Water Shortage Contingency Plan	WSCP, Section 4.6
	x	Section 8.5	10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Water Shortage Contingency Planning	WSCP, Section 5
	x	Section 8.5 and 8.6	10632(a)(5)(B) 10632(a)(5)(C)	Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications.	Water Shortage Contingency Planning	WSCP, Section 5
		Section 8.6	10632(a)(6)	Retail supplier must describe how it will ensure compliance with and enforce provisions of the WSCP.	Water Shortage Contingency Planning	WSCP, Section 6
		Section 8.7	10632(a)(7)(A)	Describe the legal authority that empowers the supplier to enforce shortage response actions.	Water Shortage Contingency Planning	WSCP, Section 7
	x	Section 8.7	10632(a)(7)(B)	Provide a statement that the supplier will declare a water shortage emergency Water Code Chapter 3.	Water Shortage Contingency Planning	WSCP, Section 7
	x	Section 8.7	10632(a)(7)(C)	Provide a statement that the supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency.	Water Shortage Contingency Planning	WSCP, Section 7
	x	Section 8.8	10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	WSCP, Section 8
	x	Section 8.8	10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	WSCP, Section 8
		Section 8.8	10632(a)(8)(C)	Retail suppliers must describe the cost of compliance with Water Code Chapter 3.3: Excessive Residential Water Use During Drought	Water Shortage Contingency Planning	WSCP, Section 8
		Section 8.9	10632(a)(9)	Retail suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance.	Water Shortage Contingency Planning	WSCP, Section 8
		Section 8.11	10632(b)	Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	Water Shortage Contingency Planning	WSCP, Section 11
	x	Sections 8.12 and 10.4	10635(c)	Provide supporting documentation that Water Shortage Contingency Plan has been, or will be, provided to any city or county within which it provides water, no later than 30 days after the submission of the plan to DWR.	Plan Adoption, Submittal, and Implementation	WSCP, Section 12
	x	Section 8.12	10632(c)	Make available the Water Shortage Contingency Plan to customers and any city or county where it provides water within 30 after adopted the plan.	Water Shortage Contingency Planning	WSCP, Section 12
	x	Sections 9.1 and 9.3	10631(e)(2)	Wholesale suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and supplier assistance program.	Demand Management Measures	N/A

lission	ssion Springs Water District								
Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)			
		Sections 9.2 and 9.3	10631(e)(1)	Retail suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand Management Measures	Section 8.9			
		Chapter 10	10608.26(a)	Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets (recommended to discuss compliance).	Plan Adoption, Submittal, and Implementation	Section 8.10			
	x	Section 10.2.1	10621(b)		Plan Adoption, Submittal, and Implementation	Section 8.10			
	x	Section 10.4	10621(f)		Plan Adoption, Submittal, and Implementation	Section 8.10			
:	x	Sections 10.2.2, 10.3, and 10.5	10642		Plan Adoption, Submittal, and Implementation	Section 8.10			
	x	Section 10.2.2	10642	The water supplier is to provide the time and place of the hearing to any city or county within	Plan Adoption, Submittal, and Implementation	Section 8.10			
	x	Section 10.3.2	10642		Plan Adoption, Submittal, and Implementation	Section 8.10			
	x	Section 10.4	10644(a)		Plan Adoption, Submittal, and Implementation	Section 8.10			
	x	Section 10.4	10644(a)(1)		Plan Adoption, Submittal, and Implementation	Section 8.10			
	x	Sections 10.4.1 and 10.4.2	10644(a)(2)		Plan Adoption, Submittal, and Implementation	Section 8.10			
	x	Section 10.5	10645(a)		Plan Adoption, Submittal, and Implementation	Section 8.10			
	x	Section 10.5	10645(b)	Ishortage contingency plan with the department, the supplier has or will make the plan available for	Plan Adoption, Submittal, and Implementation	Section 8.10			
	x	Section 10.6	10621(c)		Plan Adoption, Submittal, and Implementation	Section 8.10			
	x	Section 10.7.2	10644(b)		Plan Adoption, Submittal, and Implementation	Section 8.10			

etail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
etan	X	Chapter 1	10615	A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities.	Introduction and Overview	Section 1.1
	x	Chapter 1	10630.5	Each plan shall include a simple description of the supplier's plan including water availability, future requirements, a strategy for meeting needs, and other pertinent information. Additionally, a supplier may also choose to include a simple description at the beginning of each chapter.	Summary	Section 1.3
	x	Section 2.2	10620(b)	Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.	Plan Preparation	Section 9.2
	x	Section 2.6	10620(d)(2)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan Preparation	Section 9.2
	x	Section 2.6.2	10642	Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan and contingency plan.	Plan Preparation	Section 9.2
		Section 2.6, Section 6.1	10631(h)	Retail suppliers will include documentation that they have provided their wholesale supplier(s) - if any - with water use projections from that source.	System Supplies	Section 9.2
	x	Section 2.6	10631(h)	Wholesale suppliers will include documentation that they have provided their urban water suppliers with identification and quantification of the existing and planned sources of water available from the wholesale to the urban supplier during various water year types.	System Supplies	N/A
	х	Section 3.1	10631(a)	Describe the water supplier service area.	System Description	Section 9.3
	х	Section 3.3	10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 9.3
	х	Section 3.4	10631(a)	Provide population projections for 2025, 2030, 2035, 2040 and optionally 2045.	System Description	Section 9.3
	x	Section 3.4.2	10631(a)	Describe other social, economic, and demographic factors affecting the supplier's water management planning.	System Description	Section 9.3
	x	Sections 3.4 and 5.4	10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	Section 9.3
	х	Section 3.5	10631(a)	Describe the land uses within the service area.	System Description	Section 9.3
	x	Section 4.2	10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Section 9.4
	х	Section 4.2.4	10631(d)(3)(C)	Retail suppliers shall provide data to show the distribution loss standards were met.	System Water Use	Section 9.4
	x	Section 4.2.6	10631(d)(4)(A)	In projected water use, include estimates of water savings from adopted codes, plans and other policies or laws.	System Water Use	Section 9.4
	x	Section 4.2.6	10631(d)(4)(B)	Provide citations of codes, standards, ordinances, or plans used to make water use projections.	System Water Use	Section 9.4
	optional	Section 4.3.2.4	10631(d)(3)(A)	Report the distribution system water loss for each of the 5 years preceding the plan update.	System Water Use	Section 9.4
	optional	Section 4.4	10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the supplier.	System Water Use	Section 9.4
	x	Section 4.5	10635(b)	Demands under climate change considerations must be included as part of the drought risk assessment.	System Water Use	Section 9.4
		Chapter 5	10608.20(e)	Retail suppliers shall provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	Baselines and Targets	Section 9.5
		Chapter 5	10608.24(a)	Retail suppliers shall meet their water use target by December 31, 2020.	Baselines and Targets	Section 9.5
	x	Section 5.1	10608.36	Wholesale suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their retail water suppliers achieve targeted water use reductions.	Baselines and Targets	N/A
		Section 5.2	10608.24(d)(2)	If the retail supplier adjusts its compliance GPCD using weather normalization, economic adjustment, or extraordinary events, it shall provide the basis for, and data supporting the adjustment.	Baselines and Targets	Section 9.5
		Section 5.5	10608.22	Retail suppliers' per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use of the 5 year baseline. This does not apply if the suppliers base GPCD is at or below 100.	Baselines and Targets	Section 9.5
		Section 5.5 and Appendix E	10608.4	Retail suppliers shall report on their compliance in meeting their water use targets. The data shall be reported using a standardized form in the SBX7-7 2020 Compliance Form.	Baselines and Targets	Section 9.5
	x	Sections 6.1 and 6.2	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought.	System Supplies	Section 9.7
	x	Sections 6.1	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought, <i>including</i> <i>changes in supply due to climate change.</i>	System Supplies	Section 9.7
	x	Section 6.1	10631(b)(2)	When multiple sources of water supply are identified, describe the management of each supply in relationship to other identified supplies.	System Supplies	Section 9.6

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etail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use
	x	Section 6.1.1	10631(b)(3)	Describe measures taken to acquire and develop planned sources of water.	System Supplies	Section 9.6
	x	Section 6.2.8	10631(b)	Identify and quantify the existing and planned sources of water available for 2020, 2025, 2030, 2035, 2040 and optionally 2045.	System Supplies	Section 9.6
	x	Section 6.2	10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Section 9.6
	x	Section 6.2.2	10631(b)(4)(A)	Indicate whether a groundwater sustainability plan or groundwater management plan has been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System Supplies	Section 9.6
	х	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	System Supplies	Section 9.6
	x	Section 6.2.2	10631(b)(4)(B)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the supplier has the legal right to pump.	System Supplies	Section 9.6
	x	Section 6.2.2.1	10631(b)(4)(B)	For unadjudicated basins, indicate whether or not the department has identified the basin as a high or medium priority. Describe efforts by the supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions.	System Supplies	Section 9.6
	x	Section 6.2.2.4	10631(b)(4)(C)	Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years	System Supplies	Section 9.6
	x	Section 6.2.2	10631(b)(4)(D)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System Supplies	Section 9.6
	x	Section 6.2.7	10631(c)		System Supplies	Section 9.6
	x	Section 6.2.5	10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System Supplies (Recycled Water)	Section 9.6
	x	Section 6.2.5	10633(c)	Describe the recycled water currently being used in the supplier's service area.	System Supplies (Recycled Water)	Section 9.6
	x	Section 6.2.5	10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System Supplies (Recycled Water)	Section 9.6
	x	Section 6.2.5	10633(e)	Describe the projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected.	System Supplies (Recycled Water)	Section 9.6
	x	Section 6.2.5	10633(f)	Describe the actions which may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System Supplies (Recycled Water)	Section 9.6
	x	Section 6.2.5	10633(g)	Provide a plan for optimizing the use of recycled water in the supplier's service area.	System Supplies (Recycled Water)	Section 9.6
	х	Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 9.6
	x	Section 6.2.5	10633(a)	Describe the wastewater collection and treatment systems in the supplier's service area with quantified amount of collection and treatment and the disposal methods.	System Supplies (Recycled Water)	Section 9.6
	x	Section 6.2.8, Section 6.3.7	10631(f)	Describe the expected future water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and for a period of drought lasting 5 consecutive water years.		Section 9.6
	x	Section 6.4 and Appendix O	10631.2(a)	The UWMP must include energy information, as stated in the code, that a supplier can readily obtain.	System Suppliers, Energy Intensity	Section 9.6
	x	Section 7.2	10634	Provide information on the quality of existing sources of water available to the supplier and the manner in which water quality affects water management strategies and supply reliability	Water Supply Reliability Assessment	Section 9.7
	x	Section 7.2.4	10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water Supply Reliability Assessment	Section 9.7
	x	Section 7.3	10635(a)	Service Reliability Assessment: Assess the water supply reliability during normal, dry, and a drought lasting five consecutive water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years.	Water Supply Reliability Assessment	Section 9.7
	x	Section 7.3	10635(b)	Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects.	Water Supply Reliability Assessment	Section 9.7
	x	Section 7.3	10635(b)(1)	Include a description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts 5 consecutive years.	Water Supply Reliability Assessment	Section 9.7
	x	Section 7.3	10635(b)(2)	Include a determination of the reliability of each source of supply under a variety of water shortage conditions.	Assessment	Section 9.7
	x	Section 7.3	10635(b)(3)	Include a comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period.	Water Supply Reliability Assessment	Section 9.7
	x	Section 7.3	10635(b)(4)	Include considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.	Water Supply Reliability Assessment	Section 9.7

						2020 UWMP Location (Optional
ətail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Column for Agency Review Use
	x	Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water Shortage Contingency Planning	WSCP
	x	Chapter 8	10632(a)(1)	Provide the analysis of water supply reliability (from Chapter 7 of Guidebook) in the WSCP	Water Shortage Contingency Planning	WSCP, Section 1
	x	Section 8.10	10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the water shortage contingency plan to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Water Shortage Contingency Planning	WSCP, Section 2
	x	Section 8.2	10632(a)(2)(A)	Provide the written decision-making process and other methods that the supplier will use each year to determine its water reliability.	Water Shortage Contingency Planning	WSCP, Section 2
	x	Section 8.2	10632(a)(2)(B)	Provide data and methodology to evaluate the supplier's water reliability for the current year and one dry year pursuant to factors in the code.	Water Shortage Contingency Planning	WSCP, Section 2
	x	Section 8.3	10632(a)(3)(A)	Define six standard water shortage levels of 10, 20, 30, 40, 50 percent shortage and greater than 50 percent shortage. These levels shall be based on supply conditions, including percent reductions in supply, changes in groundwater levels, changes in surface elevation, or other conditions. The shortage levels shall also apply to a catastrophic interruption of supply.	Water Shortage Contingency Planning	WSCP, Section 3
	x	Section 8.3	10632(a)(3)(B)	Suppliers with an existing water shortage contingency plan that uses different water shortage levels must cross reference their categories with the six standard categories.	Water Shortage Contingency Planning	WSCP, Section 3
	x	Section 8.4	10632(a)(4)(A)	Suppliers with water shortage contingency plans that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Water Shortage Contingency Planning	WSCP, Section 4
	x	Section 8.4	10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water Shortage Contingency Planning	WSCP, Section 4
	x	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Water Shortage Contingency Planning	WSCP, Section 4
	x	Section 8.4	10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions are appropriate to local conditions.	Water Shortage Contingency Planning	WSCP, Section 4
	x	Section 8.4	10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	Water Shortage Contingency Planning	WSCP, Section 4
	x	Section 8.4.6	10632.5	The plan shall include a seismic risk assessment and mitigation plan.	Water Shortage Contingency Plan	WSCP, Section 4.6
	x	Section 8.5	10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Water Shortage Contingency Planning	WSCP, Section 5
	x	Section 8.5 and 8.6	10632(a)(5)(B) 10632(a)(5)(C)	Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications.	Water Shortage Contingency Planning	WSCP, Section 5
		Section 8.6	10632(a)(6)	Retail supplier must describe how it will ensure compliance with and enforce provisions of the WSCP.	Water Shortage Contingency Planning	WSCP, Section 6
		Section 8.7	10632(a)(7)(A)	Describe the legal authority that empowers the supplier to enforce shortage response actions.	Water Shortage Contingency Planning	WSCP, Section 7
	x	Section 8.7	10632(a)(7)(B)	Provide a statement that the supplier will declare a water shortage emergency Water Code Chapter 3.	Water Shortage Contingency Planning	WSCP, Section 7
	x	Section 8.7	10632(a)(7)(C)	Provide a statement that the supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency.	Water Shortage Contingency Planning	WSCP, Section 7
	x	Section 8.8	10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	WSCP, Section 8
	x	Section 8.8	10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	WSCP, Section 8
		Section 8.8	10632(a)(8)(C)	Retail suppliers must describe the cost of compliance with Water Code Chapter 3.3: Excessive Residential Water Use During Drought	Water Shortage Contingency Planning	WSCP, Section 8
		Section 8.9	10632(a)(9)	Retail suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance.	Water Shortage Contingency Planning	WSCP, Section 8
		Section 8.11	10632(b)	Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	Water Shortage Contingency Planning	WSCP, Section 11
	x	Sections 8.12 and 10.4	10635(c)	Provide supporting documentation that Water Shortage Contingency Plan has been, or will be, provided to any city or county within which it provides water, no later than 30 days after the submission of the plan to DWR.	Plan Adoption, Submittal, and Implementation	WSCP, Section 12
	x	Section 8.12	10632(c)	Make available the Water Shortage Contingency Plan to customers and any city or county where it provides water within 30 after adopted the plan.	Water Shortage Contingency Planning	WSCP, Section 12
	x	Sections 9.1 and 9.3	10631(e)(2)	Wholesale suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and supplier assistance program.	Demand Management Measures	N/A

etail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
		Sections 9.2 and 9.3	10631(e)(1)	Retail suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand Management Measures	Section 9.9
		Chapter 10	10608.26(a)	Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets (recommended to discuss compliance).	Plan Adoption, Submittal, and Implementation	Section 9.10
	x	Section 10.2.1	10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. Reported in Table 10-1.	Plan Adoption, Submittal, and Implementation	Section 9.10
	x	Section 10.4	10621(f)	Each urban water supplier shall update and submit its 2020 plan to the department by July 1, 2021.	Plan Adoption, Submittal, and Implementation	Section 9.10
	x	Sections 10.2.2, 10.3, and 10.5	10642	Provide supporting documentation that the urban water supplier made the plan and contingency plan available for public inspection, published notice of the public hearing, and held a public hearing about the plan and contingency plan.	Plan Adoption, Submittal, and Implementation	Section 9.10
	x	Section 10.2.2	10642	The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water.	Plan Adoption, Submittal, and Implementation	Section 9.10
	x	Section 10.3.2	10642	Provide supporting documentation that the plan and contingency plan has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	Section 9.10
	x	Section 10.4	10644(a)	Provide supporting documentation that the urban water supplier has submitted this UWMP to the California State Library.	Plan Adoption, Submittal, and Implementation	Section 9.10
	x	Section 10.4	10644(a)(1)	Provide supporting documentation that the urban water supplier has submitted this UWMP to any city or county within which the supplier provides water no later than 30 days after adoption.	Plan Adoption, Submittal, and Implementation	Section 9.10
	x	Sections 10.4.1 and 10.4.2	10644(a)(2)	The plan, or amendments to the plan, submitted to the department shall be submitted electronically.	Plan Adoption, Submittal, and Implementation	Section 9.10
	x	Section 10.5	10645(a)	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 9.10
	x	Section 10.5	10645(b)	Provide supporting documentation that, not later than 30 days after filing a copy of its water shortage contingency plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 9.10
	x	Section 10.6	10621(c)	If supplier is regulated by the Public Utilities Commission, include its plan and contingency plan as part of its general rate case filings.	Plan Adoption, Submittal, and Implementation	Section 9.10
	x	Section 10.7.2	10644(b)	If revised, submit a copy of the water shortage contingency plan to DWR within 30 days of adoption.	Plan Adoption, Submittal, and Implementation	Section 9.10