

490-RICR-00-00-1

TITLE 490 – WATER RESOURCES BOARD

CHAPTER 00 – N/A

SUBCHAPTER 00 – N/A

PART 1 - Water Use and Efficiency Rule for Major Public Water Suppliers

1.1 Purpose

The purpose of this regulation is to establish targets and methods for efficient water use for major public water suppliers. This rule also establishes reporting requirements.

1.2 Authority

This regulation is authorized pursuant to R.I. Gen. Laws §§ 46-15-8, 46-15.3-5.1, 46-15.7-3, and 46-15.8-5.

1.2.1 Construction and Application

- A. The terms and provisions of this regulation shall be liberally construed to authorize the Board to effectuate the purposes of State law, goals, and policies.
- B. This regulation applies to major public water suppliers, as defined within, and the Rhode Island Water Resources Board.

1.3 Definitions

- A. “Board” means the Rhode Island Water Resources Board, pursuant to R.I. Gen. Laws Chapter 46-15, or, for the administration of these regulations, the staff of the Rhode Island Water Resources Board.
- B. “Conservation pricing” means a rate structure that is employed by water utilities with the intent of providing a price signal to reduce or minimize wasteful use of water resources and to reduce future costs to customers.
- C. “Gallons per capita per day” or “GPCD” means a residential water use calculation that is determined by dividing the amount water supplied for residential use by the number days in the reporting period and further dividing that figure by the number of residents served in their places of residence.
- D. “Increasing (or inclining) block rates” means charging customers higher unit rates for progressively higher quantities of water used.

- E. “Leakage” means a component of non-billed water and is water that is lost through the water supply system through leaks in pipes, pumps, services connections, etc. For purposes of this rule leakage is calculated by estimating the difference between total non-billed water and the total of the estimated or measured allowances for firefighting, meter inaccuracy, theft, system usage, main flushing, sewer cleaning, storm drain cleaning, and other allowances that may be developed by the water resources board.
- F. “Non-billed water” means the difference between water withdrawn and/or purchased by a supplier and water sold by a supplier. Components of non-billed water include leakage, firefighting, meter inaccuracy, theft, system usage, main flushing, sewer cleaning, storm drain cleaning, and other allowances that may be developed by the Board.
- G. “Major water customer” means a water customer of a major public water supplier that uses more than three million gallons/year or more than 750,000 gallons in any consecutive three-month period and is supplied by a public supplier
- H. “Major public water supplier” means a water supplier that obtains, transports, purchases or sells more than fifty million gallons of water per year. The Department of Defense is not included in this definition.
- I. “Residential water use” means water used by single and multiunit residences for household purposes.
- J. “Seasonal rates” means customers are charged a lower water rate in the winter when water demand is usually lower and a significantly higher rate in the summer when demand is higher. All unit rates or rate blocks by class can be set so that they reflect higher summer demands for each customer class.
- K. “Water efficiency and demand management strategy” (hereinafter referred to as DMS) means a strategic plan and implementation schedule that is developed by a major public water supplier which meets the targets established by this rule and employs a combination of the required methods plus any combination optional methods in order to achieve a high level of efficiency. The schedule lays out a timeline for implementing the strategies and identifies responsible parties.
- L. “WaterSense certified” means an appliance, product, or fixture certified by the U.S. Environmental Protection Agency as using water efficiently.
- M. “Water source” means a well, reservoir, pond, lake, and river or stream segment used for potable water supply.
- N. “Water supply system management plan” or “WSSMP” means the plan that is prepared by major public water systems with content prescribed by R.I. Gen. Laws Chapter 46-15.3 and submitted to the Water Resources Board pursuant to the Rules and Procedures for Water Supply System Management Planning, [Part 2 of this Subchapter](#).

1.4 Water Efficiency and Demand Management Targets for Major Public Water Suppliers

- A. The following targets, pursuant to R.I. Gen. Laws §§ 46-15.3-5.1(c) and 46-15.8-5, are established by the Board:
1. Residential average annual water use of sixty-five (65) gallons per capita per day (GPCD) which takes into consideration;
 - a. Fluctuations in the population served.
 - b. Multi-unit residences that in some systems may be categorized and billed as commercial.
 - c. Other factors as appropriate as determined by the Board.
 2. Efficient outdoor water use.
 3. Efficient indoor water use.
 4. A full accounting of non-billed water.
 5. Leakage of no more than 10% of the withdrawals and/or purchased water measured as an annual average.
 6. Accurate metering and billing to account for all water supplied

1.5 Methods for Achieving Targets for Major Public Water Suppliers

- A. Required Methods for Achieving Targets
1. Initiate a program to accomplish 100% metering of all water delivered as specified in R.I. Gen. Laws § 46-15.3-22(b). The metering requirement is not applicable to fire suppression systems, such as fire hydrants and fire sprinkler systems since the high flows of such systems makes metering impractical.
 2. Initiate a program for the maintenance and replacement of meters in accordance with the American Water Works Association (AWWA) standards and water supply system management plans as specified in R.I. Gen. Laws § 46-15.3-22(b).
 3. Initiate a program for installation of radio frequency reading systems as specified in R.I. Gen. Laws § 46-15.3-22(b).
 4. Record metered usage and bill as specified in R.I. Gen. Laws §§ 39-15.1-3(b)(3)(e) or 46-15.3-22(c) as applicable.

5. Education to encourage the efficient use of water for all customers, which may be developed and implemented by others.
 6. Rate structures that are adequate to pay for all costs associated with water supply, are equitable, sensitive to economic impacts, and encourage the efficient use of water, per R.I. Gen. Laws §§ 39-15.1-3 or 45-39.1.5 as applicable.
 7. Implement leak detection programs in accordance with AWWA standards and water supply system management plans. If leakage is more than 10% of the withdrawals and/or purchased water, as reported to the Board pursuant to § 1.6(C)(5) of this Part, a system-wide leak detection program shall be initiated during the following fiscal year and progress reported pursuant to § 1.6(C)(6) of this Part, per R.I. Gen. Laws § 46-15.3-5.1(c).
- B. Optional Methods for Achieving Targets shall be encouraged and where possible incentivized in combinations appropriate to the water supplier that recognize the differences in supply systems and sources. Optional methods shall include but are not limited to:
1. Residential conservation pricing including inclining block rates and seasonal rates.
 2. Reduce nonagricultural outdoor water use.
 - a. Limit landscape irrigation to no more than one inch per week, including natural precipitation.
 - b. Limit landscape irrigation to evening and/or early morning hours to reduce evaporative loss.
 - c. Limit the size of landscapes that require irrigation.
 - d. Establish new plantings during the spring and fall, whenever feasible.
 - e. Select landscape plantings that, once established, require little or no irrigation.
 - f. Use soil moisture sensors on in-ground irrigation systems.
 - g. Use non-potable water (such as rainwater) where appropriate.
 3. Improve efficiency of indoor water use.
 - a. In existing construction, replace water use appliances and fixtures with products that meet current building codes, WaterSense certified standards, or equivalent.

- b. In new construction, install appliances and fixtures that meet WaterSense certified standards, or equivalent.
- 4. Improve efficiency of water use by major water customers.
 - a. Perform Water Audits (excluding proprietary processes) that determine opportunities for reuse and reduce water use.
 - b. Install appliances and fixtures that meet WaterSense certified standards, or equivalent.
 - c. Implement industry-specific best management practices, excluding proprietary processes.
 - d. Renovations or new construction that utilize architectural and green building design standards such as Leadership in Energy and Environmental Design (LEED) certification, Low Impact Development (LID) and other best management practices.
 - e. Employee education.
 - f. Outdoor water use methods as specified in § 1.5(B)(2) of this Part.

1.6 Water Use and Efficiency Progress Reporting for Major Public Water Suppliers

- A. Suppliers shall report on forms and/or in a format as established by the Board.
- B. Suppliers shall prepare a Water Efficiency and Demand Management Strategy (DMS) to achieve targets identified in § 1.4 of this Part through the application of required methods in § 1.5(A) of this Part and through the application of selected optional methods listed in § 1.5(B) of this Part and or any other methods as appropriate.
 - 1. The DMS shall constitute an amendment to and appendix of the Water Supply System Management Plan (WSSMP)
 - 2. The DMS shall include a description of actions to be taken to address each of the targets outlined in § 1.6 of this Part.
 - 3. The DMS shall include a description of how the methods outlined in § 1.5 of this Part are to be implemented as regulation of the DMS.
 - 4. The DMS shall include a schedule and timeline for completing each of the actions included in the plan.
 - 5. The DMS is subject to review and approval by the Board.

6. Once completed and appended to the Water Supply System Management Plan (WSSMP), the DMS requirements and progress shall be referenced and reviewed pursuant to the Rules and Procedures of the Water Supply System Management Program.
 7. Progress in achieving the goals and implementing the DMS shall be reported annually pursuant to § 1.6(C)(6) of this Part.
 8. If progress toward meeting the water efficiency and demand management targets and the supplier specific measurable goals have not been met after implementing the DMS or after 5 years, whichever is sooner, the Board may require the DMS be revised in amendment to the WSSMP.
- C. All Major Public Suppliers shall report annually to the Board no later than August 1 for the preceding fiscal year, starting July 1 and ending June 30 and shall include;
1. Withdrawals from each water source on a monthly basis;
 2. Wholesale purchases and sales on a monthly basis;
 3. The amount of water used by each category of use (residential, commercial, industrial, agricultural, government);
 4. Estimate of the number of residents served, including seasonal fluctuations, and with a description of the basis of the estimate;
 5. Non-billed water and the components of non-billed water (to include leakage);
 6. Progress in achieving targets each year commencing one year from the submission of the first Demand Management Strategy.

1.7 Enforcement

- A. The Board may issue a Notice of Violation to any major public water supplier that fails to comply with provisions of these regulations. The major public water supplier shall have twenty (20) days to respond to the Notice of Violation in writing. After an opportunity to be heard before the Board and in accordance with R.I. Gen. Laws § 42-35-9, failure to resolve the outstanding Notice of Violation in a manner consistent with the schedule as determined by the Board may result in the issuance of an administrative order. The issuance of an administrative order shall be deemed a final agency order subject to an immediate appeal in the superior court of Providence County or in the superior court in the county in which the cause of action arose. Any appeal taken and subsequent review by a court with jurisdiction shall be in accordance with R.I. Gen. Laws Chapter 42-35.

- B. The Board may issue to any major public water supplier failing to comply with the requirements of § 1.6 of this Part (Water Use and Efficiency Reporting) an order requiring submission of the required information.
- C. Any finding by the Board of non-compliance by a major public water supplier listed in R.I. Gen. Laws § 39-15.1-2(4) with the requirements of R.I. Gen. Laws §§ 46-15.3-7.5 or 46-15.3-7.6 shall be forwarded to the Division of Public Utilities and Carriers as required by R.I. Gen. Laws § 46-15.3-20.
- D. Failure to comply with any administrative order issued by the Board may subject a major public water supplier to the penalties set forth in R.I. Gen. Laws § 46-15-11(b).

1.8 Severability

If any provision of this regulation or the application of same to any person or circumstance, is held invalid by a court of competent jurisdiction, the validity of the remainder of this regulation shall not be affected thereby.

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