RYE WATER DISTRICT
REQUIREMENTS FOR IRRIGATION AND WATERING SYSTEMS

1. Purpose

The purpose of this Rye Water District (RWD) Irrigation and Watering Policy is to promote and enhance water conservation by establishing efficiency requirements for new and replacement irrigation and watering systems. This policy is consistent with the objectives of the RWD's Water Conservation Plan.

2. Policy

All new and replacement irrigation and watering system connected to the RWD distribution system shall be installed and operated in accordance with the requirements of this policy.

3. Definitions

A. Connection Types:

1: Residential/Business connection is a connection from a service line thru a single meter that services both the residence/business domestic need and the irrigation and watering system.

2: Standalone connection is connection from a service line thru a meter that services only the irrigation and watering system.

B. Artificially watered Areas: Earthen areas that will receive water to supplement precipitation.

C. Distribution Uniformity: A measure of how uniformly water is applied to an area being watered, expressed as a percentage.

D. Irrigation and Watering System: An automated system of pipes, spray heads, and nozzles designed to apply water to a landscape.

E. Lower Quarter Distribution Uniformity (DULQ): The ratio of the average of the lowest 25 percent of uniformity measurements to the overall average distribution uniformity measurement.

F. Microirrigation System: The frequent application of small quantities of water on or below the soil surface as drops, tiny streams, or miniature spray through emitters or applicators placed along a water delivery line. Microirrigation encompasses a number of methods or concepts such as bubbler, drip, trickle, mist, of spray and subsurface irrigation. For purposes of this regulation, microirrigation includes emission devices that have flow rates less than 30 gallons per hour.

G. Overspray or Runoff: Water that is not applied to or remains in the landscape area.

H. Site: The area, lot, or lots upon which development is to occur or has occurred.

I. Sprinkler Irrigation: Type of irrigation using mechanical devices with nozzles (sprinklers) to distribute the water by converting water pressure to a high velocity discharge stream or streams

J. WaterSense: An EPA sponsored partnership program that seeks to protect the future of our nation's water supply by promoting water efficiency and enhancing the market for water efficient products, programs, and practices

4. Metering

All connections to the RWD distribution system, including standalone irrigation and watering systems, shall be metered using a RWD supplied meter. The meter shall be located as close as possible to the point of connection to the system at the discretion of the RWD Superintendent.

5. Requirements

5.1 Artificially Watered Lawn Areas

5.1.1 All lawn areas to be watered shall be underlain by no less than six inches of loam amended to consist of no less than 10 percent organic materials by volume.

5.1.2 Water efficient grass mixes consisting of a minimum of two different grass species with three or more preferred shall make up the seed or sod. Mixes with a high percentage of fine fescues are preferred.

5.2 Irrigation Systems

5.2.1 Irrigation systems connected to the RWD distribution system that are not installed in accordance with these guidelines are prohibited.

5.2.2 Irrigation systems shall include a RWD approved Backflow Prevention Device installed at point of connection of the irrigation system to the water source. Backflow Prevention Devices shall be installed a licensed New Hampshire plumber.

5.2.3 Irrigation systems shall be designed and installed by an irrigation professional certified by the Environmental Protection Agency's WaterSense Program. If three or less WaterSense certified partners provide service to the area, a non-WaterSense irrigation professional may be utilized if permission is obtained from the RWD Superintendent. EPA provides a list of certified partners by state.

5.2.4 Irrigation systems shall be designed and installed to sustain the landscape without creating runoff or direct overspray during a minimum operating duration.

5.2.5 Irrigation systems shall achieve a lower quarter distribution uniformity (DULQ) of 65 percent or greater. Distribution uniformity shall be measured on the largest Spray irrigated area.

5.2.6 Irrigation systems shall be equipped with technology that inhibits or interrupts operation of the irrigation system during periods of rainfall or sufficient moisture (e.g., rain sensors, soil moisture sensors).

5.2.7 Sprinkler heads shall have a four inch or greater popup height and matched precipitation nozzles.

5.2.8 Irrigation systems shall be equipped with irrigation controllers that contain the following features:

a. Multiple programming capabilities – shall be capable of storing a minimum of three different programs to allow for separate schedules.
b. Multiple start times – shall be capable of a minimum of three different start times to allow for multiple irrigation cycles on the same zone for areas prone to runoff.
c. Variable run times – shall be capable of varying run times, for example one minute to a maximum of one hour.
d. Variable scheduling – shall be capable of interval scheduling (minimum of 14 days) to allow for watering on even day scheduling, odd day scheduling, calendar day scheduling, and interval scheduling.
e. Percent adjust (water budget) feature – shall include a "Percent Up/Down Adjust" feature (or "Water Budget" feature) such as a button or dial that permits the user to increase or decrease the run times or application rates for each zone by a prescribed percentage, by means of one adjustment without modifying the settings for that individual zone.
f. Capability to accept external soil moisture and/or rain sensors.
g. Nonvolatile memory or self-charging battery circuit.
h. Complete shutoff capability for total cessation of outdoor irrigation.

5.2.9 Sprinkler type irrigation shall not be used on strips of grass less than 4 feet wide or on slopes in excess of 4 feet of horizontal run per 1 foot vertical rise (4:1 slope).

5.2.10 At a minimum, microirrigation systems shall be equipped with pressure regulators, filters, and flush end assemblies. Two watering schedules, developed by the WaterSense irrigation partner shall be posted at the controller. One schedule shall be designed to address the initial grow in phase of the landscape, and the second schedule shall be designed to address an established landscape. Both schedules shall vary according to the seasons.

5.2.11 Irrigation systems shall be audited annually by a WaterSense certified irrigation professional. The audit shall ensure proper operation of all irrigation components required above. If three or less WaterSense certified partners provide service to the area, a non-WaterSense irrigation professional may be utilized if

permission is obtained from the RWD Superintendent. EPA provides a list of certified partners by state.

5.2.12 The irrigation system shall be leak checked during the annual audit (see paragraph 5.2.11). If leaks are discovered the irrigation system shall not be operated until leaks are repaired.

5.2.13 The operation of the irrigation system shall be programmed so that the system set-up:

a. Only operates during the hours of ~~7:00 pm~~ 8:00 pm and 8:00am.
b. Only operates between 1 April and 30 September.
c. Does not water during rain events.
d. Measure soil moisture and adjusts water time accordingly.
e. Sets spray zones as not to water paved areas
f. Limits water volumes to preclude run-off onto roadway.

6. Inspection

Irrigation systems are subject to inspection by the RWD superintendent, designated RWD official, or designated contractor for compliance with the provisions of this regulation.

7. Enforcement

7.1.a: Any irrigation system installed in accordance with the requirements of this regulation shall be maintained in good order for its time of service. Failure to install and maintain the irrigation system as required shall be considered a violation of this regulation and subject to termination of water services by the RWD. During periods of water use restrictions this service maybe temporality suspended. If a suspension is required notification will be provided to customers prior to implementation.

7.2.b: Initial system installation certification shall be made within two weeks after completion of installation to the RWD using the certification form included at Attachment A. Operational certifications (see paragraph 5.2.11) shall be made to the RWD within 2 weeks after completion of the annual audit.

8. Savings

If any provision of this regulation is found to be unenforceable, such provision shall be considered separable and shall not be construed to invalidate the remainder of the regulation. If there are other provisions within local or state regulations that are more stringent those provisions shall apply.

9. Effective Date:

This regulation shall take effect upon approval/acceptance by the RWD Commissioners.

10. Fee Schedule:

a: Residential/Business Connections

Billing for water usage will be in accordance with the established RWD usage rate schedule. See Tables 1 thru 4.

b: Standalone Connections

Billing for water usage will be in accordance with the established RWD usage rate schedule. See Tables 5 and 6.

Accepted

Date:

By: _____ Arthur Ditto, Commissioner Chairman

_____ Ralph Hickson, Commissioner

_____ Scott Marion, Commissioner

Note: This policy superseded the existing RWD policy for Requirements for Standalone Irrigation and Watering Systems adopted on August 7, 2019.

Attachment A

CERTIFICATION OF COMPLIANCE

RYE WATER DISTRICT

REQUIREMENTS FOR IRRIGATION AND WATERING SYSTEMS

Ref: Rye Water District Irrigation and Watering Policy, Requirements for Irrigation and Watering systems, Paragraph 7.2.b

I certify that the irrigation and/or water system installed at:

complies with the requirements specified in the Rye Water Districts Requirements for Irrigations and Water Systems, dated _____.

Installation Company:

Company Address:

Company Representative:

Representative Signature:

Date: