

# Cotuit Water Department Irrigation Regulation (April 21, 2021)

## Purpose & Preamble

The purpose of this Regulation is to maximize conservation of the public water system, to protect adjacent streams and wetlands, and to enable the Cotuit Water Department to continue to provide high quality drinking water and dependable fire-fighting flow. During the summer months water demands reach their peak and approach the capacity of the system. An estimated half (50%) of the water consumption during the summer is used for lawn irrigation. Groundwater modeling conducted by the United States Geological Survey (USGS) and as refined more recently by our consultant Sole Source Consulting<sup>1</sup> shows that peak summer pumping rates are lowering the water levels in Little River and its associated wetlands by diverting groundwater flow from the stream to the wells. As summarized in the 2021 report peak summer pumping reduces the flow rate in the Little River by as much as 32% in the area of Sampson's Mill Road. Reduced stream flow in Little River causes significant impacts to the aquatic habitat; at times, the stream is without water, during droughts but also when peak pumping exacerbates this condition. Little River flows are the major surface water inputs to water quality in Cotuit Bay and to the commercial oyster beds and other shellfish resources.

This Regulation will reduce future irrigation demands by first prohibiting customers from connecting new automatic outside irrigation to their Cotuit Water Department water service. Should customers wish to install new automatic outside irrigation, they must use their own private on-site well to supply the system. The Regulation also requires that those customers with existing automatic irrigation systems

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<sup>1</sup> Hydrogeologic Technical Report Groundwater Modeling Project of Groundwater Surface Water Interaction of the Little River and the Cotuit Wellfield Sole Source Consulting LLC, April 19, 2021

connected to the public system must utilize state-of-the art water conservation technologies including rain sensors, low flow fixtures, and rain forecasting systems. Furthermore, the Regulations requires the installation of separate water meters for those in-ground irrigation systems that will remain on the public water supply.

### Enabling Authority

In accordance with Article IX, Section 2 of the By-Laws of the Cotuit Fire District, the Cotuit Water Commissioners hereby adopt this Regulation. Article IX states, “The Water Commissioners shall have the care, custody, management, and control of all the property, real and personal, relating to the Water Department; shall have authority to determine and establish from time to time a schedule of water rates; and make rules and regulations for the introduction and use of water. The Water Commissioners or their assistants may enter upon the premises of any water taker to examine apparatus to ascertain the use to which the water is applied or to find or stop any waste.”

### Regulation

I. As of XXX, 2021 the Cotuit Water Department shall not allow any new automatic, in-ground irrigation systems to be connected to the system.

II. Existing customers of the Cotuit Water Department that have an existing automatic irrigation system are encouraged to install on-site private wells as an alternative source of water for landscaping purposes and to disconnect those systems from the public water supply.

III. Existing customers of the Cotuit Water Department that have an existing automatic irrigation system connected to the supply and wish to continue are required to register with the Water Department. Customers with systems that continue to use the public supply are required to utilize

the following equipment on their automatic outside irrigation systems: 1) rain sensors (set at ¼ inch of rain), 2) low flow heads (range ½ - 3 gallons per minute), 3) a maximum of ½-inch of water per week, and 4) separate water meters (installed at the owner's expense). After a public hearing, the Cotuit Water Commissioners will set premium rates for use of the public supply for irrigation. Customers will have XXX (days/months) from the enacting date of this policy to achieve compliance.

IV. District customers who use hoses and sprinklers periodically to water outside are urged to do so responsibly and to consider an on-site private well or rain barrel for this purpose. Never leave sprinklers unattended and do not over water.

#### V. Fines & Enforcement

The Regulation also establishes a schedule of fines for customers who violate any of the mandatory irrigation regulations. The fines begin with a warning for the first offense, a \$250 fine for the second offense, and a \$500 fine for the third or subsequent offense and can culminate in the discontinuation of water service related to irrigation for repeat offenders. Fines are levied under this Regulation on the basis of reconnaissance by Water Department staff. For example, observation of irrigation during rain events will be deemed a violation.

Please contact us at the Cotuit Water Department for further assistance: (508) 428-2687.

**THE BOARD OF WATER COMMISSIONERS RESERVES THE RIGHT TO INSTITUTE A BAN OF ALL OUTSIDE USE DURING PERIODS OF WATER EMERGENCY AS DEFINED BY THE COMMONWEALTH OF MASSACHUSETTS.**