

Demand Management Measures: The City has adopted (an excess of twelve years ago) an increasing block rate structure to promote the use of LESS water. This rate structure continues to be in effect now and in the distant future.

Following are some examples of current practices within the Department of Public Works (DPW) that illustrate our understanding of, and effort to adhere to, prudent water resource management, particularly with regards to efficient landscape design, construction and maintenance. Each report recommendation is followed by a description of our current practice.

Reduce Lawn Area. The proposed landscape plan for City Hall Annex (part of an effort to obtain LEEDS certification for the building project) features native, drought-tolerant species of low shrub masses, which after initial establishment will require irrigation only during times of drought stress. Corporal Burns Playground and Paine Park are other examples of recent design featuring increased ground cover alternatives to turf.

Water Between Sunset and Early Morning to Reduce Evaporation. Virtually all of our irrigation zones are programmed to run between 1:00 a.m. and 7:00 a.m., with the exception of newly-sodded areas and/or athletic fields experiencing drought stress.

Install a Rain Shutoff Device on the Irrigation System. All of our automatic controllers installed within the last two years have this feature, and as we replace older controllers with newer ones, the ratio will increase.

Undertake an Irrigation System Audit Every Two Years. Repair Broken Sprinkler Heads. We assign two people to irrigation maintenance on a full-time basis while the systems are charged. Our systems are audited every year for major adjustments, and checked at least weekly to ensure that sprinkler heads are operating properly. All broken heads are replaced as soon as they are found or reported. We expend about \$12,000 annually in materials to ensure proper operation.

Mow Lawns at the Highest Recommended Height. For the past four years, we have mowed all turf areas at 2½ inches, which is a full inch higher than what cool-season grass cultivars under irrigation can tolerate. Longer shoot growth shades the soil surface and keeps it cooler, thus reducing water requirements.

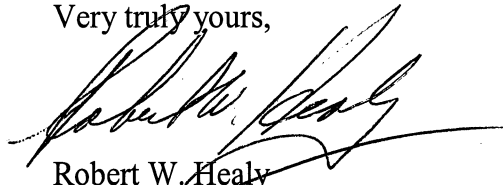
Aerate Compacted Soils to Improve Lawn Rooting and Moisture Absorption. Since 1999, all athletic fields plus major lawn areas such as Cambridge Common and Longfellow Park are aerated at least once per year, sometimes more depending on use patterns. Additionally, smaller turf areas are aerated on an as-needed basis, typically in preparation for over-seeding.

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The DPW has retrofitted older systems (and specified new systems) with stainless steel sprinkler heads that are less prone to breakage than plastic fittings, thus reducing the potential for wasting water. Also, we have amended the clay areas of all ball diamonds with a mix that is less prone to wind migration, thus reducing the need for water simply for dust control.

Site Plan Review Standards/Guidelines. In addition, DPW will be developing Site Plan Review Standards/Guidelines to address storm water runoff from development/redevelopment sites. This document will incorporate recommendations for the infiltration and management of rainwater to reduce site runoff and conserve the use of municipal water.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Robert W. Healy', written over a horizontal line.

Robert W. Healy
City Manager



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CITY OF CAMBRIDGE • EXECUTIVE DEPARTMENT

Robert W. Healy, City Manager

Richard C. Rossi, Deputy City Manager

October 21, 2002

To The Honorable, The City Council:

In response to Awaiting Report Item No. 02-82, regarding a report on the *Guide to Lawn and Landscape Water Conservation* and the guide's application for promoting water conservation in the City, Managing Director of the Water Department Sam Corda and Public Works Commissioner Lisa Peterson report the following:

Both the Water Department and the Department of Public Works have reviewed the Executive Office of Environmental Affairs' (EOEA) newly released *Guide to Lawn and Landscape Water Conservation*, dated May 2002. EOEA's report outlines recommendations for managing water supplies particularly during drought conditions and promoting water conservation in the City of Cambridge. This document recommends elements for inclusion into a municipal Water System Management Program. Recommendations include development of water system restriction by-laws or ordinance and a water shortage/drought management plan. A review of the guide by both the Water and Public Works Departments shows that the City of Cambridge has a solid program in place for water conservation.

In most if not all cases the Water Department is using or updating the main guide recommendations. These general recommendations defined in the EOEA guide have been around for many years. This information has been available through the American Water Works Association (AWWA) and the Massachusetts Department of Environmental Protection (DEP) and watershed groups such as the Charles River Watershed Association (CRWA).

The specific areas that relate to the Water Department are:

Drought Management: A drought contingency plan was implemented by the Department in 1989, this plan is currently being reviewed for possible update. The updates will be based on the current and future needs of Department, City and regulatory agencies.

Municipal Bylaw: There is a water restriction ordinance defined in the Cambridge Municipal Code book. The ordinance number is 13.08.090 titled "Water Restriction Authority". This ordinance is sufficient to implement any and all restrictions required to meet the needs of the City.

3-328

Consent Agenda #9

Awaiting Report Item

Number 02-82, regarding a report on the *Guide to Lawn and Landscape Water Conservation* and the guide's application for promoting water conservation in the City.

In City Council October 28, 2002

**REFERRED TO HEALTH AND
ENVIRONMENT
COMMITTEE ON MOTION OF
VICE MAYOR DAVIS.**

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