

Learning to live with less water

By Kate Bowditch/ Special To The Tab
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With the beauty of spring bursting into bloom, you may not have noticed, but Massachusetts is in a serious dry spell. With almost no spring rain, and no winter snowpack to provide spring melt, we are well out of our normal seasonal water cycle. According to the National Weather Service, this year we had the driest March on record in many parts of New England, and river flows in the Charles are as low as they have ever been at this time of year.

The most visible and immediate impacts of spring drought are in the river, where the usual spring flush is simply not happening. Fish and other aquatic species that rely on spring's high, fast flows are instead struggling in flow levels that are normal in July. Wetlands that are normally full of water in March and April are already drying out. For people who enjoy spring kayaking and fishing on the Charles, the low flows have had an obvious and dramatic impact, especially in the free-flowing sections of the river.

Hopefully, this spring drought will not last through the summer, and the stressed river, wetlands and urban forest will rebound. But climate change and development patterns are putting more and more stress on the water-based environment, and will have to adapt our habits, practices and expectations accordingly. We need a built environment that protects resources, and is flexible enough to withstand change. Over time, that means reducing our reliance on traditional engineering such as curb and gutter, pipes and concrete channels, and embracing softer, greener infrastructure. Nature provides some of the best models for coping with changing weather and climate conditions, and we need to emulate as many of those models as possible.

The Charles River Watershed Association advocates for "keeping water local," and provides suggestions for managing water on sites of all sizes and uses, whether a parking lot, an industrial facility, or a single family home. The basic concept is to design a site so it works as if it were undeveloped. By approximating nature's own design and function we will protect not only the natural environment but our built environment as well.

Homes, and the local environment generally, can be made more resilient and better able to cope with less water. Think of each property as one small patch of land that needs to sustain itself with its own resources, and you will begin to see possibilities.



Low flow, spring 2006,
Cheesecake Brook

Try to recharge most rainwater into the ground; direct runoff over vegetated areas to slow and clean the flows; allow water to pool and collect in low wet areas that are planted with wetland species; save rooftop runoff in a cistern or barrel system to use for outdoor watering needs; use native plants that are suited to a fluctuating climate and do not need to be watered.

A landscape that keeps rainfall on-site is good for our rivers, ponds and wetlands. It is beneficial to property owners and to communities when landscapes are designed to withstand dry periods as well as heavy rains, and with reduced need for fertilizer, pesticides and irrigation. There are many good sources of landscaping information, such as the fact sheets available on the EPA website: www.epa.gov/owow/nps/facts. Some people might consider improving or creating wetlands on their property, as suggested in a recent webcast series sponsored by the Izaak Walton League of America <http://itre.ncsu.edu/cte/TechTransfer/Teleconferences/iwla2006.asp>

Kate Bowditch, Senior Environmental Scientist and Project Manager at Charles River Watershed Association, is a hydrologist. She earned her MA in Geography/Water Resources Management from BU.

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