FOR THE ASSABET SUDBURY & CONCORD RIVERS

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Testimony by Alison Field-Juma, OARS Executive Director
to the 495/MetroWest Suburban Edge Community Commission

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Thank you for the opportunity to submit testimony on the topic of Water Resources in the 35 suburban edge communities in the 495/MetroWest region. Twenty-one of these communities are in the Sudbury-Assabet-Concord watershed which we represent. OARS' mission is to restore the health and protect the natural and recreational features of the Assabet, Sudbury, and Concord Rivers, their tributaries and watersheds, and to increase public awareness of the rivers' values as important natural resources. Established in 1986, OARS has 725 members, including residents, businesses, and organizations, and over 200 active volunteers. A recognized leader in reducing effluent pollution and managing invasive water chestnut, OARS uses science-based advocacy to implement its mission within three program areas: Water Quality and Stewardship; Policy and Advocacy; and Outreach and Education. OARS' water quality monitoring program has produced 24 consecutive years of water quality data (www.oars3rivers.org/river/waterquality). Collected by trained citizen scientists under an approved quality control plan, these data are used by municipalities and regulators as the basis for permitting, project investment, and policy decisions.

OARS is a science-based organization. Founded to address the severely polluted Assabet River (known at the time as "The Cesspool of Massachusetts"), OARS monitors water quality and aquatic biomass to help establish the causes of pollution, identify possible solutions, and advocate for those solutions. We work closely with municipalities, state and federal agencies, local businesses, organizations and residents to achieve these goals.

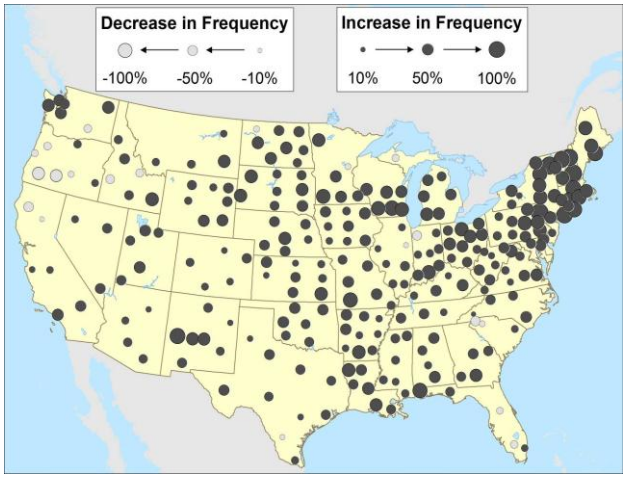
We have had considerable success on the Assabet River, for example, due to the investment of time, money, and expertise by all these parties. As a result, the Assabet River has become an important recreational and tourism asset to the region, increased local property values, and improved quality of life in nearby communities. Sections of these three rivers are federally-designated Wild & Scenic Rivers due to Congressional recognition of their outstanding natural values and centrality in the nation's history and literature. The watershed hosts two National Wildlife Refuges on the Assabet, Sudbury and Concord rivers and Minute Man National Historical Park on the Concord River.


Assabet River, Stow, 2002 vs. 2014

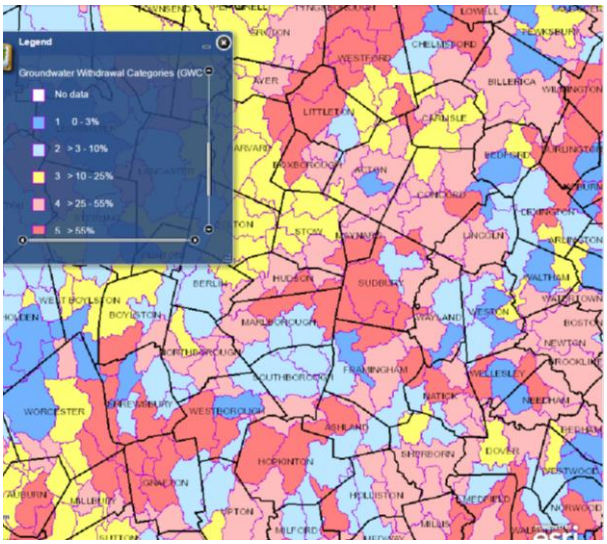
Rapid development, paired with limited aquifers and reservoir capacity, is now stretching our communities' water resources to the limit, and many have no alternative sources. We depend on nature for drinking water, water for commerce and industry, agriculture, recreation (including golf courses, fishing, boating and wildlife), and aesthetic beauty. Sufficient clean water is essential for economic development and public health and welfare, and yet it is a very limited resource over which we have limited control. It is unfortunate that the Governors' "Opportunities for All" economic plan (2015) does not recognize the role of water. As highlighted in the Collins Center/UMass Report (2014, p. 2), government investment in water and sewer infrastructure has a far greater impact on private investment decisions than other types of government spending.


Wayland Center, March 2010 *Nashoba Brook, Concord, August 2016*

We have grown complacent due to decades of plentiful rainfall, but the two-year drought that stressed our limited water supplies last summer and resulted in major damage to agriculture and wildlife provided a reminder of the importance of careful water stewardship. Even the most conservative predictions show that our state will experience significantly more drought, intense precipitation (read stormwater), floods and heat waves in the decades ahead. This will make the task of providing water for human use and ecosystem services far more challenging that we had expected. "Water infrastructure" is far more than the pipes and facilities that convey, clean, and pump water.



Change in Extreme Precipitation Frequency, 1948-2011



Groundwater Depletion Map SuAsCo, DEP SWMI Viewer

In this context we have four priorities to present to you. We ask that you consider these on their own merit, but also integrate them into your analysis of economic development, housing, and other sectors under consideration.

1. Invest in new solutions.

Invest in the right kind of infrastructure. The infrastructure of the past solved many problems but created others, particularly loss of recharge and stormwater flooding and pollution. In contrast, green infrastructure cleans water, recharges it, reduces flooding, and supports healthy green space. In many developments it makes more economic sense than traditional grey infrastructure.

Invest in the long term. Take advantage of opportunities to collaborate in new ways with neighboring municipalities, e.g., on stormwater management and access to funding.

Discharging more wastewater to our rivers is not an option. Treating and infiltrating wastewater into the groundwater is a solution that protects water quality and recharges aquifers. Promote decentralized wastewater infrastructure that discharges to the ground, and minimize sewer extensions.

2. Strengthen our state agencies.

DEP and DCR provide for the health and quality of life that residents and businesses expect in our region, from cleaning up hazardous waste sites to providing public parks. Their funding has been cut to the bone, and yet every year we need even more services. Strong support for adequate agency funding as a priority from this region would make a difference.

The goal of any reform should be cleaner water. Adding all NPDES permitting under the Clean Water Act to DEP's list is irresponsible until their capacity to do the necessary monitoring, permitting, and enforcement is built up and a steady and sustainable source of funding is established for such a program.

The State Auditor's Report on Water Infrastructure (1/17/17) emphasizes that assessment fees should be part of the funding stream if DEP were to take on this major new responsibility.

It is more effective and better for public health and the environment to spend resources implementing, rather than pushing back on, environmental regulations.

Allowing safe greywater use will save municipalities money by reducing water demand. This will require changes to the State Plumbing Code. Support proposed regulatory changes (expected from the Plumbing Board and Division of Professional Licensure) that facilitate greywater use, and adopt local incentives.

3. Strengthen local protections.

Recognize the connection between local land use controls and escalating water infrastructure costs. See land use template and LID fact sheets at: www.massaudubon.org/lidcost . Communities can reduce their water infrastructure cost burdens and the impacts of climate change by:

- Focusing compact development and redevelopment around existing water and sewer systems as much as possible;
- Updating local zoning and subdivision rules to reduce sprawl and the unnecessary construction of expansive roads, stormwater, and water systems that are unaffordable to maintain;
- Incorporating LID into local rules as the preferred method for all development and redevelopment;
- Valuing the free water filtration, infiltration, and flood control services provided by natural green infrastructure.

Green stormwater infrastructure

Increase wetlands, recharge and flood protection via increased buffer zones.

Pass stormwater bylaws that will reduce flooding and water pollution and recharge groundwater supplies, with an emphasis on green infrastructure where appropriate. Ensure adequate funding for stormwater infrastructure through a Stormwater Utility, if necessary. Communicate the health and economic benefits to taxpayers.

Regulate private non-essential water use (generally through the Board of Health) to match public water supply restrictions and increase water conservation messaging and incentives.

Apply water conservation rules to the public supply, even if it is registered rather than permitted under the state's Water Management Act.

Consider Net Blue-type bylaws that allow growth while incentivizing water conservation and improvements in water use efficiency (www.allianceforwaterefficiency.org/net-blue.aspx). All new housing and industry should be expected to maximize water use efficiency.

4. Build resilience to climate disruption

The Commonwealth's Climate Adaptation Strategy emphasizes the critical role that our natural resources play in protecting us from harm from climate instability and providing us with essential services. Investing in land and water protection is more important—and more cost-effective—than ever in the face of increasing droughts, floods and heat waves. Because natural resources cross municipal boundaries, regional collaboration makes sense. This is being done in the MAPC's 13-community MAGIC Climate Vulnerability Assessment and Adaptation Plan (8 are Commission member communities).

As communities prioritize their water infrastructure needs, building resilience to climate change should be front and center as approaches and investments are weighed in order to be enduring and cost-effective. When other states find themselves struggling with a consistent deficit of rainfall, Massachusetts will be able to compete by offering adequate water supply for economic development and ecological health—but only if we manage it well now.