



May 4, 2023

*Via Email*

Chair Rebecca Rausch & Chair Daniel Cahill  
Joint Committee on Environment and Natural Resources  
[JointCommittee.Environment@malegislature.gov](mailto:JointCommittee.Environment@malegislature.gov)

**Re: Testimony In Support of H861 / S475, An Act Relative to Maintaining Adequate Water Supplies through Effective Drought Management; H890 / S508, An Act Responding to the Threat of Invasive Species; H792, An Act establishing the Blue Communities Program; H852, An Act Relative to Municipal Assistance for Clean Water and Economic Development Infrastructure; and H906, An Act to Accelerate and Streamline Wetlands Restoration**

Dear Chairs Rausch and Cahill:

Thank you for the opportunity to provide testimony in support of *An Act Relative to Maintaining Adequate Water Supplies through Effective Drought Management* (H861 / S475); *An Act Responding to the Threat of Invasive Species* (H890 / S508); *An Act establishing the Blue Communities Program* (H792); *An Act Relative to Municipal Assistance for Clean Water and Economic Development Infrastructure* (H852); and *An Act to Accelerate and Streamline Wetlands Restoration* (H906). Through this written testimony, I hope to build upon Charles River Watershed Association's ("CRWA") oral testimony provided at the Joint Committee on Environment and Natural Resources hearing held on April 26, 2023.

Collectively, these bills empower our state to combat extreme drought, address invasive species, make our communities more sustainable and equitable, fix our dilapidated water infrastructure, and protect our uniquely beautiful wetlands. As you are aware, since 1965 CRWA has sought to make the Charles River Watershed – and Massachusetts as a whole – more prepared to face the unknowns of climate change. While there are no silver bullet measures to completely address the impacts of climate change, these bills provide the foundation for Massachusetts to truly contend and adapt. We respectfully request that you consider the testimony below and report out all of these bills favorably.

***H861 / S475:*** *Our state needs regional restrictions on non-essential outdoor watering during declared droughts to contend with increasingly frequent and severe periods of water scarcity*

CRWA supports H861 / S475, *An Act Relative to Maintaining Adequate Water Supplies through Effective Drought Management* ("the Drought Bill"). We have supported this bill since it was first introduced by Representative Carolyn Dykema in 2017. At that time, CRWA provided written testimony noting how crucial it was that Massachusetts be able to address drought on a regional level by formally establishing a Drought Management Task Force, empowering the Secretary of Energy and Environmental Affairs to limit nonessential outdoor water use uniformly in drought areas, and giving municipalities the authority

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to enforce the Secretary's restrictions. Since then, our Commonwealth has been ravaged by extreme drought conditions repeatedly.

2017 itself saw the Charles River basin experience a drought that was amongst the worst in the last century, resulting in then record-low streamflows and water levels in the Charles River, threatening aquatic life and increasing the risk of wildfires. In 2020, nearly the entire state was in moderate to severe drought, which was exacerbated by the warmest July recorded in the Northeast. Last year, in 2022, drought conditions were so severe that portions of the Charles River near Needham and Newton ran almost completely dry and water levels were below a foot at several other points.

Yet despite the consistency of the threat that drought represents, Massachusetts has never enjoyed the efficacy of a consistent response. Under the current regime, while one town in a particular basin or subbasin might implement conservation measures, another may not. Even now, as Figure 1 in the attached materials demonstrates, municipalities have vastly different approaches to water conservation. It is crucial to understand that the watersheds from which these towns withdraw are hydrologically connected, just as groundwater and surface water are throughout Massachusetts. If our water resources are shared it stands to reason that our conservation measures should be as well.

In 2017, CRWA completed a study of the potential water savings of various outdoor use restrictions based on summer, 2016 watershed data. Our conclusion was that substantial amounts of water can be saved by earlier, more aggressive outdoor conservation requirements, such as hand held watering only and total bans. For instance, Franklin reduced its outdoor water use by 34%, following passage of a one-day a week watering restriction a number of years ago (Franklin 2004). In 2016, when Franklin imposed a total water ban it was able to reduce use by another 12.6%, or over 12.5 million gallons. Milford was able to save 10 million gallons when it went from odd-even day watering to hand held watering only.

These water savings have tangible effects on the Massachusetts economy and our collective quality of life. Last year, the drought even stole Christmas, with some Charles River Watershed Christmas tree farmers losing as much as 95% of the trees they planted.<sup>1</sup> As I alluded during my oral testimony, sinking groundwater levels have the potential to expose the pilings of many historic buildings from Back Bay to Fenway, causing them to decay, and eventually, to fail. More than \$36 billion of assessed properties in Boston are supported by pilings at risk of failing under such conditions - and the cost of repairing rotting wood pilings can be more than \$400,000 per building, even for smaller buildings like rowhouses.<sup>2</sup> Finally, the connection between drought and devastating wildfires cannot be ignored. As Vandana Rao, current Director of Water Policy with the Massachusetts Executive Office of Energy and Environmental Affairs

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<sup>1</sup> NBC Boston, "Severe to Extreme Drought Plays Grinch in Christmas Tree Crop for Mass. Farmers," NBC Boston, <https://www.nbcboston.com/weather/stories-weather/severe-to-extreme-drought-plays-grinch-in-christmas-tree-crop-for-mass-farmers/2824402/>.

<sup>2</sup> "We need rain': Drought threatens the very foundation of some Boston buildings." The Boston Globe, 3 Sept. 2022, <https://www.bostonglobe.com/2022/09/03/science/we-need-rain-drought-threatens-very-foundation-some-boston-buildings/>.

has noted, “[t]o put out fires, we need water. If people are using a lot of water for grass, it’s not enough to put out a fire ... [h]aving that water for fire protection is critically important.”<sup>3</sup>

Substantial rainfall may be the only true remedy for drought, but it is imperative that we do our utmost to delay and dampen drought’s effects. The Drought Bill is a science-based climate change bill that will help to protect public health and safety, and the ecology of our freshwater resources. CRWA urges the Committee to favorably report out this pressing and proactive bill.

***H890 / S508: Our state needs more funding and a comprehensive strategy to effectively manage aquatic and terrestrial invasive species***

CRWA supports H890 / S508, *An Act Responding to the Threat of Invasive Species* (“the Invasive Species Bill”). In the past, the biggest sources of pollution to the Charles were untreated sewage and industrial pollutants. Today the biggest threat is stormwater and the nutrient pollutants, like phosphorus, that it transports directly to rivers through our storm drains. As a result of nutrient pollution, the Charles, like many urban rivers, suffers from rampant growth of invasive aquatic species, fast-growing non-native plants that are overtaking the river ecosystem. In fact, six of the “sinister seven” aquatic invasive species are found in the Charles River: Eurasian watermilfoil, variable watermilfoil, curly-leaf pondweed, fanwort, spiny/brittle naiad, and water chestnut.

Anyone who rows, paddles or boats on the Charles, or any other water body in Massachusetts, is familiar with these invasive plants. They pose a safety concern to boaters, whose oars and motors get tangled in these plants, sometimes causing them to capsize. On the Charles, uncontrolled growth of these plants along the banks also encourages boaters to cluster in the center of the river where they are more likely to have collisions.

The Charles River is one of the most heavily used urban rivers and these invasive plants are interrupting people’s ability to enjoy this natural treasure in the heart of Boston. Aquatic invasive plants also wreak ecological damage on the health of the river and the plants and animals that rely on it. Invasive plants outcompete and crowd out native species, deplete the water of the oxygen necessary for native plants and fish to survive, and block sunlight from reaching the riverbed, which inhibits photosynthesis. When these plants die, they suck all the oxygen out of the water and actually suffocate the fish in the river, causing fish kills.

As I and others noted during oral testimony, because efforts to control invasive species are currently split between the Department of Conservation and Recreation (“DCR”) and the Department of Agricultural Resources (“DAR”) our state will never be able to comprehensively and systematically combat the threat that invasive species represent. The Invasive Species Bill unifies agency efforts and creates a coordinated effort to tackle the invasive species dilemma, rather than addressing it on a case-by-case basis, an approach that has failed and will continue to fail in the long run.

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<sup>3</sup> “Severe drought spreads rapidly across Mass., sparking wildfire concerns.” Boston.com, 7 Aug. 2022, <https://www.boston.com/news/environment/2022/08/07/severe-drought-spreads-rapidly-across-mass-sparking-wildfire-concerns/>.

In prior years, the legislature has approved some of the funding for DCR to remove invasive plants in the Charles and Mystic Rivers, but that funding is simply not sufficient. On its own, CRWA organizes a dozen invasive species removal events every year and recruits over 100 volunteers to help with these efforts. We have also worked with DCR and other partners to develop and implement a management plan for invasive species in the Lower Charles River Basin. But all of this is not enough to keep up with the escalating problem of invasive species, both for the Charles River Watershed and for Massachusetts.

This is because terrestrial and aquatic invasive threats are everywhere in our state. 68% of municipalities in Massachusetts currently have confirmed emerald ash borer infestations, a pernicious pest that kills the trees it affects within one to four years of infestation. The Asian Longhorned Beetle was first discovered in Massachusetts in 2008 and has since cost \$50 million in federal and state money to eradicate. Over 25,000 trees in Worcester had to be cut to halt its spread. Combined, invasive species cost the United States \$21 billion annually.<sup>4</sup> To avoid these harms and the costs to address them, our state must be ready with a coordinated, state-wide plan and the funds, staff, and equipment to implement it. CRWA urges the Committee to favorably report out this crucial bill.

***H792: Our state needs to continue to support and incentivize Massachusetts municipalities to implement policies that will help reduce nutrient pollution of aquatic habitats***

CRWA supports H792, *An Act establishing the Blue Communities Program* (“the Blue Communities Bill”). This bill seeks to establish a statewide Blue Communities Program that would encourage municipalities and other entities to adopt water conservation measures, promote public education and outreach on water issues, and support the development of green infrastructure to reduce stormwater runoff and improve water quality.

The Blue Communities Program would be administered by the Massachusetts Department of Environmental Protection (“DEP”), which would provide technical assistance, guidance, and financial incentives to support participating municipalities and other entities. The program would also establish a certification process for Blue Communities, which would recognize their efforts to promote sustainable water use and protect water resources. This bill, along with Massachusetts’ groundbreaking Municipal Vulnerability Protection Program - and the expansion of that program - will substantially increase our municipalities’ long-term environmental sustainability. CRWA urges the Committee to favorably report out this bill to reduce the harmful effects of nutrient pollution and to help usher in a more sustainable future for our state.

***H852: Our state needs to invest in fixing and replacing our outdated and pollutive infrastructure to address harms to environmental justice communities and all Massachusetts municipalities***

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<sup>4</sup> Fantle-Lepczyk et al., “Economic costs of biological invasions in the United States.” *Science of the Total Environment*, vol. 806, February 2022, article 151318. Elsevier BV

CRWA supports H852, *An Act Relative to Municipal Assistance for Clean Water and Economic Development Infrastructure*. This bill seeks to establish a Water Pollution Abatement Trust and a Water Infrastructure Improvement Fund for the purpose of improving drinking water, wastewater, and stormwater infrastructure through loans and grants. CRWA is confident that this bill represents an essential step towards addressing the urgent need for clean water infrastructure improvements in Massachusetts.

The establishment of the Water Pollution Abatement Trust and the Water Infrastructure Improvement Fund will provide much-needed resources for local and regional projects that meet certain criteria for improving capital assets related to drinking water, wastewater, and stormwater. This funding will be provided through a combination of loans and grants, for which bonds may be issued.

The importance of this legislation cannot be overstated. Improving our water infrastructure is vital for protecting public health and ensuring the long-term sustainability of our communities. As of February 2023, testing by DEP confirmed lead in the water at 82% of the 58,414 faucets and fountains tested at Massachusetts schools.<sup>5</sup> A recent report gave our state a C- grade for lead in school drinking water.<sup>6</sup>

By investing in clean water infrastructure, our state will prevent water pollution and lead exposure, reduce the risk of waterborne illnesses, and support economic development. CRWA urges the committee to favorably report out this bill and enable Massachusetts to address the severe environmental injustices caused by failing stormwater infrastructure and deteriorating lead service pipelines.

***H906: Our state needs to restructure the way that nature based solutions can be implemented in wetlands areas to ensure that we are able to conserve and preserve these iconic Massachusetts landscapes***

CRWA supports H906, *An Act to Accelerate and Streamline Wetlands Restoration* (“the Wetlands Permitting Bill”). This bill will help protect Massachusetts wetlands and restore their ecological function by reducing regulatory barriers and creating a more efficient and effective permitting process for nature based solutions.

Wetlands are critical ecosystems that provide numerous benefits to our communities, including improving water quality, reducing flood damage, and supporting biodiversity. However, wetlands are also highly vulnerable to degradation and destruction from human activities. This bill’s proposed Wetlands Restoration Streamlining Initiative will expedite agency project review processes and interagency permitting efforts, while aligning these processes with the Commonwealth’s climate mitigation, adaptation, and resiliency goals. It will also provide technical assistance and support to state, nonprofit, and municipal project proponents to help simplify the permitting process for wetlands restoration.

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<sup>5</sup> Rumpler, John and Casale, Matt. “Get the Lead Out: Grading the States on Protecting Kids’ Drinking Water School.” Environment America, February, 2023.

<sup>6</sup> *Id.*

Protecting our state's wetlands and the benefits they provide will only become more important. CRWA urges the committee to support this bill and take action to ensure the continued protection and restoration of Massachusetts' wetlands.

Thank you again for the opportunity to provide testimony for the above bills, and for the hard work of the Committee in hearing and considering the many bills before you. Please let me know if you have any questions, and again, on behalf of CRWA, I urge a favorable report of these bills.

Respectfully,

A handwritten signature in black ink, appearing to read "Zeus Smith". The signature is written in a cursive, flowing style.

Zeus Smith, Esq.  
Policy Advocate, CRWA

**Additional Materials:**





