



June 2, 2023

Senator Rebecca Rausch
Representative Daniel Cahill
Joint Committee on Environment and Natural Resources
State House
24 Beacon St. Room 473-F
Boston, MA 02133
JointCommittee.Environment@malegislature.gov

Re: Testimony In Support of **H876/S557**, *An Act to create a commission to determine the feasibility of voluntary acquisition of flood risk properties and structures*; **S559**, *An Act establishing a Massachusetts Flood Risk Protection Program*; **H774/S584**, *An Act creating a special commission to scope a state grant or low interest loan program for properties prone to flooding*; **H842**, *An Act establishing a flood mitigation and preparedness program*

Dear Chairs Rausch and Cahill:

Thank you for the opportunity to provide testimony in support of *An Act to create a commission to determine the feasibility of voluntary acquisition of flood risk properties and structures* introduced by Representative Sarah Peake and Senator Marc Pacheco (**H876/S557**); *An Act establishing a Massachusetts Flood Risk Protection Program* introduced by Senator Marc Pacheco (**S559**); *An Act creating a special commission to scope a state grant or low interest loan program for properties prone to flooding* introduced by Representative Josh Cutler and Senator Bruce Tarr (**H774/S584**); and *An Act establishing a flood mitigation and preparedness program* introduced by Representative Patrick Kearney (**H842**). Through this written testimony, I hope to expand upon the oral testimony I provided on behalf of Charles River Watershed Association ("CRWA") at the Joint Committee on Environment and Natural Resources hearing held on May 17, 2023 and demonstrate the necessity of strong flood protection legislation for Massachusetts.

CRWA's Charles River Flood Model ("CRFM") conclusively demonstrates that inland flooding impacts in the Charles River watershed over the next 50 years will be significant. While the results of the CRFM are specific to the Charles River watershed, we can infer that riverine flooding will adversely impact homes, businesses, and critical infrastructure in communities throughout our Commonwealth. Our state has a tremendous opportunity to invest in flood preparedness now before disaster strikes. Accordingly, I hope you will consider the following testimony in support of **H876/S557**, **S559**, **H774/S584**, and **H842**.

H876/S557 and **S559**: *The Charles River Flood Model reveals the significant danger to river health and community infrastructure that inland flooding represents; it is imperative that our state acts now to either implement a program to help move our citizens out of harm's way or at least explore the viability of such a program for Massachusetts.*

Charles River Watershed Association

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CRWA supports **H876/S557**, *An Act to create a commission to determine the feasibility of voluntary acquisition of flood risk properties and structures* and **S559** *An Act establishing a Massachusetts Flood Risk Protection Program*. By focusing on river restoration as well as directly reducing infrastructure damage through voluntary acquisition of property and relocation of impacted residents and businesses, these two bills represent our state's best chance to enact a comprehensive and protective flood strategy.

What many do not realize is that a few more inches of rainfall across some watersheds - like the Charles River watershed - can increase the volume of affected rivers by millions of gallons. In 2022, analysis using the CRFM concluded that by 2070, a 100-year storm, or one with a 1% chance of occurring each year, would cause a 61% increase in runoff and 11+ inches of precipitation compared to today's levels. In the Charles River watershed, this would cause an additional 2600+ acres that don't currently flood to experience severe flooding, impacting 75+ critical facilities like hospitals, schools, and highways. This means that in towns like Newton, Waltham, and Needham, by 2070, once-safe areas may be submerged during flood events. Results from the CRFM show that some areas of Newton and Needham will see a 118% increase in inundated areas, while parts of Dedham *will see more than a 280% increase*.

As catastrophic as that sort of flood event could be for the built environment and for the people inhabiting it, it could be equally harmful for the health of our rivers. Flooding can result in spillage of raw sewage from combined sewer overflows ("CSOs"), can increase the prevalence of potentially harmful nutrient content in rivers, and can cause discharges of toxic materials from industrial and chemical facilities abutting rivers.¹ Combined this can make our rivers unsafe for us, and deadly to the wildlife inhabiting them. Moreover, Massachusetts cannot rely on federal authorities, or even existing flood maps. In a new analysis, Metropolitan Area Planning Council (MAPC) found 96% of claims from the March 2010 flood came from outside of FEMA's Special Flood Hazard Areas.²

With this in mind, Massachusetts must take action of its own to prepare for flood impacts. One way to do this is to move homes, businesses, and infrastructure out of flood-prone riverine areas and to re-establish natural landscapes to help with flood storage and restore ecosystem functionality. **S599** would do exactly that by creating a statewide flood risk protection program to acquire properties which are, or are projected to be, repetitively or substantially damaged by floods. It also creates a Flood Risk Protection Trust Fund which would cover the acquisition of property from willing owners; structure demolition; relocation of impacted property owners, tenants and lessees; coastal, floodplain and wetland restoration; and creation of open space for conservation and recreational purposes to be protected in perpetuity. To best accomplish these goals, **S599** goes beyond the use of federal flood maps, and mandates a statewide flood assessment, using the best available climate data and models, and sea level rise, tidal, coastal, riverine flooding data, and models, to assess the current and future flood risk to property statewide.

¹ Talbot, C.J., Bennett, E.M., Cassell, K. et al. *The impact of flooding on aquatic ecosystem services*. Biogeochemistry 141, 439–461 (2018). <https://doi.org/10.1007/s10533-018-0449-7>

² Drysdale, Sam. *Feds' maps unreliable in predicting flood risk. Disclosing a building's history might be better*. WBUR (2023). <https://www.wbur.org/news/2023/05/04/boston-flood-risk>

In the alternative, **H876/S557** establishes a commission known as the Voluntary Acquisition of Flood Risk Properties Commission that would assess the advantages and disadvantages of a program similar to the one described by **S599**. By creating a commission full of scientific, industry, and government experts and considering a wide range of factors, it represents the ideal step for our state to take to ensure that whatever program we implement works well for our state and responds to the unique needs of our municipalities.

Flood acquisition programs in other states have been remarkably successful. In New Jersey, the Blue Acres Buyout Program has preserved over 750 properties, boosting flood safety in 20 cities and towns, and creating functional green spaces which serve as both flood protection and recreational amenities.³ Our state can and should restore our river ecosystems while helping families and businesses in flood prone areas get out of harm's way. CRWA respectfully requests this Committee to favorably report **H876/S557** and **S599**.

***H774 / S584:** Study commission bills allow our state to compare various programs and funding mechanisms to adapt to the realities of climate change induced flooding*

CRWA supports **H774 / S584**, *An Act creating a special commission to scope a state grant or low interest loan program for properties prone to flooding*. Like **H876/S557**, this legislation, if passed, represents an excellent way for our state to start assessing options to protect coastal and riverine Massachusetts property owners from the worst impacts of flooding.

This legislation would establish a special commission, operating under the provisions outlined in section 2A of chapter 4 of the General Laws, to comprehensively assess and develop a state grant or low-interest loan program to support structural elevation efforts by Massachusetts property owners. Like **H876/S557**, the commission formed as part of this legislation would also explore state acquisition of properties at risk of flooding throughout the Commonwealth.

The proposed commission would consider various critical components to structure the program effectively. These components would include (i) identifying suitable funding sources, (ii) determining eligible expenses, (iii) defining applicant eligibility criteria, (iv) establishing a cost-benefit analysis framework for evaluating applicant eligibility, (v) addressing risks and hazards identified in the integrated State Hazard Mitigation and Climate Adaptation Plan (“SHMCAP”), and (vi) developing strategies to enhance resiliency. Additionally, the commission would review program expenditures and pay-outs to ensure effective utilization of resources.

As emphasized above, ignoring the issue of coastal and inland flooding is not an option for our state. The best course of action would be to implement programs immediately to protect our communities. However, if it is deemed prudent to explore flood protection options further before Massachusetts

³ Urban Land Institute, *New Jersey Blue Acres Buyout Program*, Urban Resilience Program (Accessed June 2023). <https://developingresilience.uli.org/case/new-jersey-blue-acres-buyout-program/>.

invests in programs, then CRWA encourages this Committee to support a study commission bill like **H876/S557** or **H774/S584** today so our state can better understand the dangers of flooding tomorrow.

***H842:** Our state would benefit the immediate enactment of a flood mitigation program and from dedicated funding for flood adaptation measures*

CRWA supports **H842**, *An Act establishing a flood mitigation and preparedness program*. This bill would create both a Flood Mitigation and Preparedness Fund and a Flood Mitigation and Preparedness Review Board.

The establishment of the Flood Mitigation and Preparedness Fund would function as a dedicated financial resource to support flood mitigation projects. By incorporating various funding sources such as federal grants, loan repayments, and investment earnings, the fund would ensure a sustained and reliable stream of resources. Importantly, as with all such funds, unexpended monies would carry over into the subsequent fiscal year, enabling continued investment in flood mitigation efforts.

Under the proposed program, local governmental bodies would be eligible to receive grants or loans from this fund for a range of flood mitigation initiatives, as well as associated administrative costs. Potential projects include critical measures like elevating vulnerable utilities, installing flood equalization vents, and expanding community outreach and education efforts. By supporting these endeavors, the program would bolster community resilience and safeguard both lives and properties from the devastating impacts of flood events. As noted, **H842** would also establish a Flood Mitigation and Preparedness Review Board, a vital oversight body composed of experts in flood mitigation and related fields. This board would play a crucial role in reviewing funding applications and assessing their compliance with program requirements.

All of the bills that CRWA is supporting in this testimony aim to accomplish the same goal: to prepare our state for the worst before it happens. While our state has taken admirable steps to acknowledge the potential harms that will accompany climate change - like the creation of the SHMCAP - we must do more to address the potentially catastrophic impacts of widespread flooding in Massachusetts.

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. Flood danger can be hard to appreciate because it is naturally unpredictable. However, scientific advances and comprehensive flood modeling efforts have made it clear that our state will see more frequent and more severe flooding. Now is the time to take action and preserve the health of our rivers and the safety of our communities. Please let me know if you have any questions, and again, on behalf of CRWA, I urge the Committee to favorably report **H876/S557** or **S559** or to support alternative flood protection measures in the form of **H774/S584** and/or **H842**.

Respectfully,



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Cc: Representative Sarah Peake
Senator Marc Pacheco
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