

An Act Establishing a Massachusetts Flood Risk Protection Program



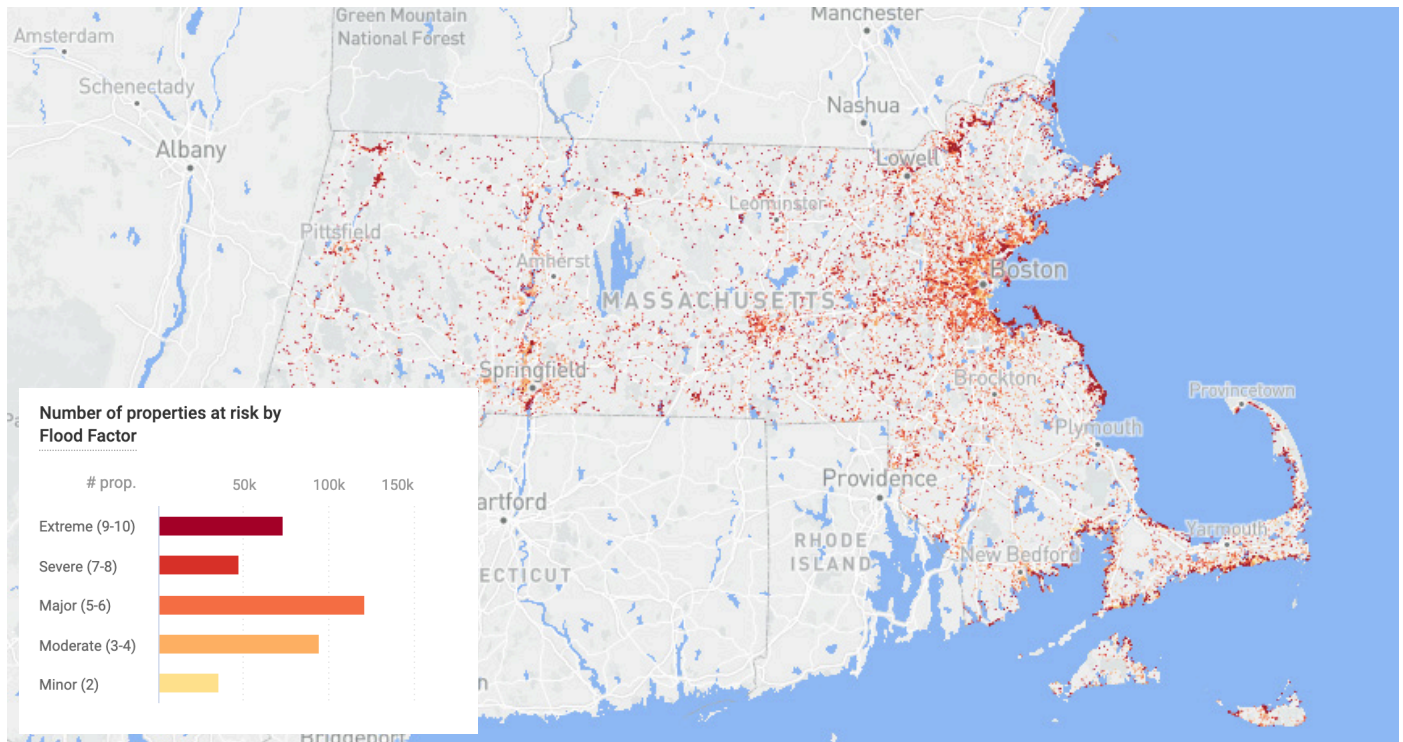
*Nor'Easter in Winthrop, MA
Photo credit: Erin Connolly*

Climate Adaptation and Flood Risk

Sea level rise and other climate change impacts such as more frequent and intense storms are leading to increased flooding and other hazards. Adapting to climate impacts depends on lawmakers' willingness to act now to manage unavoidable flood risk today – and into the future.

Flood maps show that 321,488 properties are already at risk in Massachusetts¹ and that figure will increase in coming decades. Researchers conclude that over 90% of affordable housing in Massachusetts coastal communities will be exposed to flooding if action is not taken soon.²

To protect against flood risk, property owners, developers and state and local agencies historically relied on fixed barriers such as walls and armoring. In recent decades there has been a shift toward softer engineered solutions like beach nourishment. However, fixed barriers are not always effective at managing severe or repetitive flooding caused by rivers, rainfall, storm surge, tides, and sea level rise.



Flood Factors across Massachusetts. (Courtesy of FloodFactor.com)

Property Buyouts

Property owners, tenants, local communities, and policy makers are increasingly looking for affordable solutions, financially practical and feasible to adapt to climate change impacts, including flooding. One tool is property buyouts, which can provide relief to those experiencing repeated damage.³ Buyouts are a sustainable climate adaptation and coastal and floodplain management strategy involving property owners interested in selling their homes and moving out for good. When a property is acquired under a planned and well-coordinated buyout program, the residents relocate away from flood prone areas, the home is removed, and the land permanently conserved – eliminating the risks and costs associated with flooding and rebuilding while restoring flood

plains, salt marsh, dunes and beaches and creating a climate resilient landscape.

While uprooting can be difficult, property buyout programs are entirely voluntary, and state and local governments can help to relocate residents. They are attractive to some, as relocating permanently protects people, businesses, infrastructure and first responders from climate change impacts as they become more frequent, intense, and hazardous. Also, buyouts may be the only solution available for those with few other options – including low-income homeowners and Environmental Justice populations⁴ who may face skyrocketing flood insurance premiums in the face

¹ First Street Foundation, First National Flood Risk Assessment, https://floodfactor.com/state/massachusetts/25_fsid

² Affordable Housing in Mass. Among Most Vulnerable to Flooding, <https://iopscience.iop.org/article/10.1088/1748-9326/abb266/pdf>

³ Property buyout is also referred to as buyback, strategic realignment, managed retreat, planned relocation and resettlement.

⁴ As defined by Chapter 62 of Section 30 of the Massachusetts General laws.



Winter storm Riley - Lynn, MA. (Photo credit: Harry Andresen)

of increasing flood risk, or who cannot afford to continuously rebuild after extreme weather hits.

Buyouts are a one-time investment to acquire property and help owners and renters relocate to safer ground. These projects provide widespread and sustainable environmental and public open space benefits as the land is conserved and restored to its natural coastal and floodplain functions,

Massachusetts Flood Risk Protection Program

The proposed Massachusetts Flood Risk Protection Program legislation (FRPP)⁵ has been filed in the Massachusetts Legislature by Representative Sarah Peake and Senator Marc Pacheco and will be considered during the 2021-2022 legislative session.

The goals of the FRPP are to proactively eliminate the risk of catastrophic flood damage to individuals, families, small business, neighborhoods, infrastructure and first responders, and to help property owners and renters to move out of harm's way, while permanently conserving and restoring the land to restore habitat and climate resiliency functions and provide community benefits.

The FRPP bill requires state agencies to use current data and models to develop and implement a long-term strategy to help communities across Massachusetts mitigate the impacts of severe and repetitive flooding on homeowners, renters, and neighborhoods. The program prioritizes the allocation

which buffers local communities from costly, future climate impacts. Natural areas may also provide critical ecosystem services, such as drinking water supply protection and habitat conservation, as well as outdoor recreational opportunities.⁶

The Federal Emergency Management Agency's (FEMA) Building Resilient Infrastructure and Communities (BRIC) program supports similar projects by offering pre-disaster hazard mitigation funds.⁶ However, federal funds are limited, and it can take up to a decade to facilitate a BRIC project.

Massachusetts needs a statewide buyout⁸ program to support needs that FEMA may not address, and to leverage federal, public, and private investments. We would not be the first state to create such a program. The New Jersey Blue Acres program has purchased properties across 16 cities and towns, spending \$190 million to acquire more than 700 properties and demolish 665 homes.⁹

Lawmakers enacted environmental bond bills in 2014 and 2018 that together authorize \$50 million for a coastal buyback program.¹⁰ However, while the Commonwealth has created a statewide climate adaptation management plan¹¹ a comprehensive, voluntary buyout program does not yet exist.

of benefits to low-income residents and Environmental Justice populations. The state would help cities, towns, land trusts and other eligible stakeholders facilitate the acquisition of property from voluntary property owners at risk of flood inundation on the coast and inland, and that suffer repetitive or substantial flood damage. The program offers relocation assistance for owners and renters. It also fosters nature-based solutions to serve as natural buffers against future storms and floods. It creates a new trust fund designed to leverage local, state, federal and private funds, and insurance programs with the same or similar purposes. The FRPP would save substantial recovery, building and flood insurance costs; and protect people, neighborhoods and first responders from future hazards. Reclaimed property would be returned to its natural state restoring barriers to flooding and providing a climate resilient landscape.

⁵ <https://malegislature.gov/Bills/192/H983>

⁶ Lincoln Institute, Buy-In for Buyouts, <https://www.lincolninstitute.org/sites/default/files/pubfiles/buy-in-for-buyouts-full.pdf>

⁷ <https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities>

⁸ For example, see Action 8-B: Support the implementation of a voluntary program that would facilitate the buy-back of high hazard or storm-damaged properties in Mass Coastal Erosion Commission Report, <https://www.mass.gov/files/documents/2016/12/v1/cec-final-report-dec2015-v1.pdf>

⁹ Managing Retreat from Rising Seas, https://www.georgetownclimate.org/files/MRT/GCC_20_NewJersey-3web.pdf

¹⁰ See line 2000-7060 in 2014 Environmental Bond, <https://malegislature.gov/Bills/188/H4375>, and line 2000-7064 in 2018 Environment and Climate Bond, <https://malegislature.gov/laws/sessionlaws/acts/2018/chapter209>

¹¹ <https://www.mass.gov/adapting-to-climate-change>

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Section 1

Creates a statewide Flood Risk Protection Program to be coordinated between the executive offices of energy and environmental affairs, housing and economic development, and public safety and security.

Section 2: Definitions

Defines ‘contiguous properties,’ ‘cluster properties,’ ‘environmental justice population,’ ‘flood risk,’ and ‘nature-based solutions.’

Section 3: Program Eligibility

Outlines eligible projects including property that is a flood risk (as defined), property used for residential, nonprofit, or small business purposes, and projects that also receive funding from the federal emergency management agency.



Winter storm Riley - Lynn, MA. (Photo credit: Sanghwan Kim)

Section 4: Program Requirements

Outlines requirements to ensure the program is fair, equitable and voluntary. Ensures that property be acquired from a willing seller; the owner is paid pre-loss fair market value; and at least 75% of program funds low-income homeowners or owners within an environmental justice (EJ) population. Requires acquired properties to be conserved in perpetuity and maintained as open space for public access and benefit – nothing permanent can be constructed unless critical to a nature-based solutions project.

Section 5: Statewide Flood Risk Assessment and Standards

Requires state agencies to consult with technical experts, use the best available data, create a statewide assessment of flood risk, and develop standards to prioritize projects including those owned by low income property owners and EJ

populations; clustered or contiguous properties; that protect the health and safety of neighbors; and protect, restore and enhance habitat, fisheries, agricultural lands, drinking water supplies, ecosystem services, and that offer recreational opportunities for public use.

Section 6: Roles and Responsibilities

Outlines the roles of each secretariat from energy and environmental affairs, housing and economic development, and public safety and security.

Section 7: Flood Risk Protection Program Trust Fund

Creates a new fund to support the FRPP. Although this bill does not create new, dedicated funds, there exists \$20 million in the 2014 Environmental Bond and \$30 million in the 2018 Climate and Environment Bond that could be used for coastal buyout projects.¹² Future monies deposited in the FRPP Trust Fund can be used for acquisition and related fees; demolition, removal and disposal of buildings and structures (historical and archaeological resources receive special consideration); relocation assistance for homeowners and renters; and site restoration and stabilization including nature-based solutions that enhance climate resiliency and restore and conserve fish and wildlife habitat. Local Community Preservation Act funding can also be leveraged for buyout projects.

Section 8: Regulations

Requires the promulgation of regulations within six months after the bill becomes a law.

Section 9: Interagency Coordination

Requires the three secretariats to consult with the existing environmental justice advisory council, global warming solutions act implementation advisory committee, and other stakeholders including homeowners, tenants, insurers, and municipal officials.

Nationally, the US Federal Emergency Management Agency (FEMA) has funded managed retreat in over 1,100 counties across 49 states, acquiring more than 40,000 properties - a small fraction of the estimated 49 million housing units in shoreline counties.¹³ Climate change is likely to require managed retreat at much larger scales. Real estate worth \$1.4 trillion is already located within 700 feet of the US coast, and sea-level rise alone is projected to affect 4–13 million Americans.¹⁴

¹² See line 2000–7064 in Chapter 209 of 2018, <https://malegislature.gov/laws/sessionlaws/acts/2018/chapter209pdf>

¹³ <https://www.sciencedirect.com/science/article/pii/S2590332219300806#bib12>

¹⁴ *ibid*

Case Studies

Coastal areas are facing increased threats of flooding due to sea level risk, tidal floods, and storm surge. Massachusetts residents can use a new tool to learn more about properties at flood risk in their communities by visiting floodfactor.com. To look at the risk faced by coastal communities specifically, visit riskfinder.climatecentral.org. To explore a list of other floodplain tools, programs, and mapping, visit: mass.gov/guides/floodplain-management.

State of New Jersey: Blue Acres Buyout Program

“In May 2013, Governor Christie designated the Blue Acres program, which is part of New Jersey’s Department of Environmental Protection, to operate the state’s entire post-Sandy acquisition effort. The Governor’s goal was, and remains, to use \$300 million in federal disaster recovery funds to purchase clusters of storm-damaged homes or flooded neighborhoods from willing homeowners at pre-storm value. These homes are then demolished and preserved in perpetuity as open space, to serve as a natural buffer against future storms and floods. To date, Blue Acres has successfully secured \$273 million in federal disaster recovery funds for acquisitions, including \$169 million from FEMA’s Hazard Mitigation Grant Program (HMGP); \$100 million from the U.S. Department of Housing and Urban Development’s Community Development Block Grant – Disaster Recovery program; and \$4 million from the U.S. Department of Agriculture – Natural Resources Conservation Service.”¹⁵



Flooding in Charlotte, NC after heavy rain in 2011. (Photo courtesy Charlotte Fire Department / CC BY 2.0)

Charlotte-Mecklenburg County, North Carolina: Floodplain Buyout Program

“Since 1999, Storm Water Services has purchased over 400 flood-prone houses, apartment buildings and businesses that were in floodplains throughout Charlotte-Mecklenburg. Over 700 families and businesses have moved to less vulnerable locations outside



The first house to be demolished as part of the Blue Acres buyout program, in Sayreville, NJ in March 2014. Photo courtesy: Rosanna Arias/FEMA

of local floodplains. 185 acres of public open space has been “undeveloped” to allow the floodplain to function during heavy rain and provide a long-term community asset. Storm Water Services also estimates these buyouts have avoided \$25 million in losses and will ultimately avoid over \$300 million in future losses the first 12 years of the program were funded exclusively through Federal grants with local matching funding. Currently, the annual investment in buyouts is \$4 million and most buyouts are funded completely with local money.”¹⁶

Harris County, Texas: Flood Control District Local Buyout Program

“Since the Flood Control District’s voluntary buyout program began in 1985, nearly 2,500 structures have been purchased with federal grants (98% from FEMA). Over 1,035 properties (65% with structures) have been purchased with Flood Control District funds. As a result, nearly 1,300 acres have been restored to their natural and beneficial function as a floodplain and millions of dollars in flood damages avoided. These properties will never flood again – the only properties for which we can make such a guarantee.”¹⁷

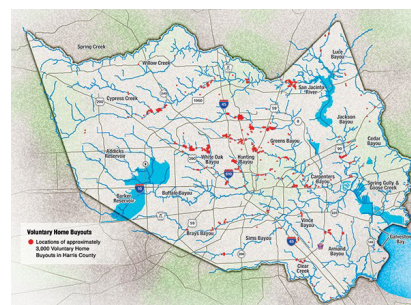


Photo courtesy Harris County Flood Control District

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¹⁵ <https://www.fema.gov/>

¹⁶ <https://www.charlottenc.gov/>

¹⁷ <https://www.hcfdc.org/>