

Memorandum

To: Rhode Island Infrastructure Bank Board of Directors

From: William Fazioli, Executive Director

Date: January 15, 2024

Re: Municipal Resilience Program 2023 Action Grant Awards - \$12,029,527

The Rhode Island Infrastructure Bank (the “Bank”) is proposing to commit up to \$12,029,527 of Action Grant funds to actionable, impactful projects identified through the Municipal Resilience Program (“MRP”). These awards would be granted from the \$16 million in funds approved by voters to support MRP projects as part of the 2022 State Green Bond. The remainder of the funds will be allocated in a second grant round later this year.

As you may recall, the MRP was developed and launched to support municipalities in increasing climate resilience by creating a shared understanding of hazards and vulnerabilities, as well as a prioritized list of projects. Since 2019, MRP workshops have led to the identification of over 1600 resilience actions, and MRP participating communities have been awarded a total of \$7.4 million in Action Grants to date. The program has continued to grow in 2022 and 2023, with 15 new municipalities participating in the program. The MRP now has 35 of the 39 Rhode Island municipalities enrolled in the program, with workshops and resilience plans having been completed by the Bank’s partner agency for the MRP, The Nature Conservancy (TNC).

The Bank subsequently released a RFP for MRP Action Grants in September 2023. With the additional funding from the State Green Bond, the Bank encouraged all MRP municipalities, who had joined the program in any year, to apply. Strong proposals were received from 30 MRP municipalities. The 41 proposals received spanned multiple need areas, from flood management and coastal erosion control to infrastructure floodproofing or relocation. In total, the grant requests across all applications were in excess of \$52 million which far exceeds available funding levels. This strong demand for funding demonstrates the need to formulate a financial framework that can provide a sustainable revenue source to address the mounting challenges posed by acute and chronic climate related events.

The MRP Action Grant Review Committee convened on December 5th, and December 15th, 2023, and January 9th, 2024, to review proposals, including representation from Department of Environmental Management, Department of Health, Coastal Resources Management Council, Division of Statewide Planning, and Bank staff. In reviewing proposals, the committee focused on impact and feasibility; long-term sustainability of the proposed solution; readiness and partners contributing; community buy in and engagement; green infrastructure solutions utilized; and whether Bank funds would be “last money in.” The committee continues to conclude that, as the MRP scales to include more municipalities, and as the impacts of climate change worsen, the need for resilience funding across the state is growing as well.

I recommend that the Board approve the recommended projects, totaling \$12,029,527, to support the selected 2023 Municipal Resilience Program Action Grant proposals. All applicants committed at least 25% toward local project match and confirmed projects will be complete by December 31, 2025. Below is a summary of the 20 projects we are proposing to fund for your review.

Proposed Projects for MRP Action Grant Funding:

Municipality	Proposal Name	Primary Project Type	Activity Funded	Recommended Award
1. Barrington	<i>Coastal Adaptation Projects: Latham Park, Allin's Cove, Water Way</i>	Coastal Stabilization	Design	\$112,500.00
2. Bristol	<i>Urban Forest Municipal Resilience Project</i>	Forestry	Construction	\$113,225.00
3. Central Falls	<i>Dexter Street Resiliency Project</i>	Stormwater Management	Construction	\$147,795.00
4. Charlestown	<i>Engineering, Design, Permitting, and Community Outreach for the Charlestown Breachway and Adjacent Barrier Island Complex Restoration</i>	Coastal Stabilization	Design	\$203,085.00
5. Coventry	<i>Tiogue Lake Stormwater / Flooding Mitigation Project</i>	Stormwater Management	Design	\$100,000.00
6. East Providence	<i>Crescent Park Shoreline Protection & Slope Stabilization</i>	Coastal Stabilization	Construction	\$1,800,000.00
7. Glocester	<i>Flood Prevention - Infrastructure Upgrades</i>	Stormwater Management	Design	\$59,950.00
8. Hopkinton	<i>Strengthening Flood Resilience through Road and Stream Crossing Upgrades</i>	Stormwater Management	Construction	\$1,344,088.00
9. Johnston	<i>Atwood Avenue & Hartford Avenue, Chronic Stormwater Flooding</i>	Stormwater Management	Design	\$340,000.00
10. Lincoln	<i>Front Street Improvements</i>	Stormwater Management	Design	\$84,400.00
11. Middletown	<i>Floodproofing Paradise Avenue Pump Station</i>	Elevation and Floodproofing	Construction	\$69,600.00
12. New Shoreham	<i>Corn Neck Road Dune Restoration</i>	Coastal Stabilization	Design	\$465,000.00
13. Newport	<i>King Park Shoreline Resilience Improvements</i>	Coastal Stabilization	Construction	\$2,392,884.00
14. North Providence	<i>Fruit Hill Avenue West Area Drainage Improvements</i>	Stormwater Management	Design	\$80,500.00
15. Pawtucket	<i>Daggett Avenue Green Infrastructure Corridor</i>	Stormwater Management	Design	\$156,500.00
16. Providence	<i>Public Street Waterfront Access & Green Infrastructure Project</i>	Stormwater Management	Construction	\$1,000,000.00
17. Providence	<i>Mashapaug Watershed Water Quality Improvements - Phase II</i>	Stormwater Management	Construction	\$225,000.00
18. South Kingstown	<i>Saugatucket Culvert Improvements</i>	Stormwater Management	Design	\$85,000.00
19. Warren	<i>Jamiel's Park Living Shoreline and Landfill Closure Resilience Project</i>	Coastal Stabilization	Construction	\$1,250,000.00
20. Woonsocket	<i>Truman Drive Green Infrastructure Parkway</i>	Stormwater Management	Construction	\$2,000,000.00
			Total	\$12,029,527.00

Descriptions of Proposals:

1. Grantee: Barrington

Project Name: *Coastal Adaptation Projects: Latham Park, Allin's Cove, Water Way*

Award: \$112,500

The Town of Barrington is proposing a suite of three critical coastal adaptation projects identified through the Municipal Resilience Program process: 1. The Latham Park project will address chronic coastal erosion at the park and adjacent shoreline, and implement climate-smart improvements to the park grounds; 2. The Allin's Cove project will mitigate bank erosion in two sections of shore close to critical Town infrastructure and address stormwater erosion on a shore access path utilizing nature-based solutions; 3. The Water Way project will update a green infrastructure solution to better address coastal erosion and stormwater pollution on a section of street that dead-ends at the shore adjacent to the town beach.

2. Grantee: Bristol

Project Name: *Urban Forest Municipal Resilience Project*

Award: \$113,225

This project entails the purchase and planting of 238 trees on public properties and along street right of ways in 3 of our priority watersheds - Silver Creek, Tanyard Brook, and Mt. Hope Bay. The Town identified tree plantings for stormwater mitigation as a priority action item in the Town of Bristol Municipal Resilience Program Community Resilience Workshop Summary of Findings of 2020. Trees provide benefits which address environmental impacts including climate change, stormwater management, air pollutant removal, and mitigating heat islands. To help the Town with planning for Bristol's Urban Forest, the Town has recently partnered with the RI Department of Environmental Management who provided funding for the Green Infrastructure Center (GIC) to assist with the creation of a Tree Management Plan.

3. Grantee: Central Falls

Project Name: *Dexter Street Resiliency Project*

Award: \$147,795

This project proposes the use of a combination of permeable pavers, vegetation, and pavement reduction to revitalize a public plaza and a city-owned public parking lot on Dexter Street, a vibrant commercial corridor that serves residents of adjacent neighborhoods as well as regional visitors. Dexter Street, like much of the rest of the city, is densely developed and suffers from an excess of paved surfaces and minimal vegetation, factors which lead to higher temperatures in the summer and increased stormwater runoff that causes localized flooding, and combined sewer-stormwater overflows. This project will serve as a demonstration for the city and other communities to assess the feasibility and effectiveness of taking an incremental, property-by-property approach to addressing this problem, as well as to prepare to take these techniques to scale as more funding becomes available.

4. Grantee: Charlestown

Project Name: *Engineering, Design, Permitting, and Community Outreach for the Charlestown Breachway and Adjacent Barrier Island Complex Restoration*

Award: \$203,085

The Town of Charlestown is leading a crucial project to address the impacts of climate change, sea-level rise, and storm surges on the Charlestown Breachway barrier beach-lagoon system in Rhode Island. This project focuses on the first design phase, which includes engagement with adjacent landowners, RIDEM and USFWS. This phase is instrumental in preparing the second phase to be "shovel-ready" and eligible for future funding opportunities through the Town budget and grants over the next three years. The second phase, to be conducted over the subsequent two to three years, involves breachway west wall reconstruction, dredging, dune restoration, and dune grass planting. The overall project aims to enhance the resilience of the breachway system and adjacent natural habitats, providing a safer and more sustainable coastal access point for the public while protecting vital ecosystems.

5. Grantee: Coventry

Project Name: *Tiogue Lake Stormwater/Flooding Mitigation Project*

Award: \$100,000

This project will complete the design and outreach for a system which will address chronic stormwater flooding, which causes contaminants and pollution to enter Lake Tiogue, and property damage by installing green stormwater infrastructure that will capture stormwater and hold it until the water can infiltrate into the ground. In June 2023, the RI Department of Health and Department of Environment Management advised the public to have no contact with Tiogue Lake due to blue-green algae blooms that cause toxins harmful to humans and animals. A strict public warning to cease all recreation at Tiogue Lake; fishing, boating, and kayaking is enforced. Routine water quality sampling conducted at Briar Point Beach, on Tiogue Lake, revealed concentrations of fecal indicator bacteria (FIB) far exceeding the standards set by the RI Department of Health. The contributors and likely sources of FIB to Tiogue Lake are stormwater runoff, cesspools and septic systems, and pet and wildlife waste. This project will design stormwater infrastructure that mimics natural filtration, helping to control flooding while reducing pollution caused by runoff in two locations.

6. Grantee: East Providence

Project Name: *Crescent Park Shoreline Protection and Slope Stabilization*

Award: \$1,800,000

East Providence will utilize this project funding to construct slope stabilization measures at the City's Crescent Park waterfront. This grant would fund Phase 2 of the City's planned efforts which includes construction of approximately 250 feet of hybrid shoreline protection measures to protect the coastal bluff. Protection will consist of a stone revetment backed by a coir log system and a vegetated slope. Erosion due to increased wave action and sea level rise has long been a concern which became an immediate priority after the collapse of the City's approximately 100-year-old seawall in 2020. The City has invested millions of dollars into reconstructing the seawall and is now looking to address crucial erosion issues with this hybrid approach to the slope immediately to the south.

7. Grantee: Gloucester

Project Name: *Flood Prevention – Infrastructure Upgrades*

Award: \$59,950

The Town proposes to advance priority roadway drainage and conveyance system upgrades including replacement of undersized culverts associated with waterway crossings and low-lying areas that flood. As part of this project, the Town will complete the design for 5 repeated flooding locations with specific low-lying areas through infrastructure improvements. This series of projects was selected as they pose the most immediate current threat to public safety and they are the most feasible to implement given the project timeframe. Acting now can also preserve the integrity of the surrounding infrastructure, providing cost savings. Construction at the five sites will be phase II of this project.

8. Grantee: Hopkinton

Project Name: *Strengthening Flood Resilience through Road and Stream Crossing Upgrades*

Award: \$1,344,088

Hopkinton has partnered with Save the Bay, the Wood-Pawcatuck Watershed Association (WPWA), and the Wood-Pawcatuck Wild and Scenic Stewardship Council to develop a climate resilience project to address the challenges faced by natural hazards and climate change. This project will include design, permitting, community outreach and engagement, and implementation of upgrading two road and stream crossings along Collins Road. This work will strengthen Hopkinton's climate resilience by 1) enhancing riverine connectivity, 2) minimizing flooding during increased precipitation events caused by climate change, and 3) improving public safety. This project will provide critical support to the Town's efforts to minimize the risk of flooding, while promoting aquatic organism passage in a cold-water stream and improving water quality.

9. Grantee: Johnston

Project Name: *Atwood Avenue and Hartford Avenue, Chronic Stormwater Flooding*

Award: \$340,000

The purpose of this project is to address heavy flooding associated with the Pocasset River Watershed at Johnston's Town Center intersection of Hartford and Atwood Avenues, which has worsened significantly in recent years due to increased precipitation and storm intensity. The area just south of Hartford Avenue and Atwood Avenue intersection is impacted where the Pocasset River passes under Atwood Avenue through a bridge/culvert structure. Stormwater flooding creates significant safety hazards in this area and extends up to the Route 6 ramps, causing traffic on surrounding roads, including Route 295 to be slowed to a crawl. This project will fund the design for green stormwater solutions to address the flooding problems associated with the Pocasset River Watershed. Phase II of the project will be construction of stormwater solutions.

10. Grantee: Lincoln

Project Name: *Front Street Improvements*

Award: \$84,400

This project involves bringing green infrastructure improvements to Front Street from the intersection of River Road to the intersection with Grove Street, about 2,000 linear feet. The proposed improvements include granite curbing, concrete sidewalks, wheelchair ramps, street trees, landscaping, and new crosswalks to enhance ADA accessibility and provide safe and inclusive pedestrian access along the corridor. Aesthetic and resiliency improvements include installing trees and landscaped planters and benches within various locations along the corridor. A reduction in impervious areas will also reduce stormwater runoff, which contributes to flooding in poorly drained areas.

11. Grantee: Middletown

Project Name: *Floodproofing Paradise Avenue Pump Station*

Award: \$69,600

The Paradise Avenue pump station is a town-owned facility located about 500 feet north of the shoreline of Sachuest Beach, and about 450 feet from the Maidford River. This location makes it vulnerable to both riverine and coastal flooding due to storm surge compounded with sea level rise. This project will include installing custom-sized vent covers and waterproof doors, as well as raising accessory utilities, such as the HVAC units and the electrical box, to at least 2 feet above grade. A waterproof epoxy coating to the exterior will be applied with a foundation slab and brick walls, above grade. These efforts will reduce water filtration during flood events, effectively flood-proofing the pump station to a 100-year storm event.

12. Grantee: New Shoreham

Project Name: *Corn Neck Road Dune Restoration*

Award: \$465,000

Corn Neck Road is exposed and susceptible to repeated storm damage due to low elevation and orientation relative to principal wave direction. Any temporary elimination of vehicular traffic along this segment of the roadway leaves the island community vulnerable as normal evacuation routes are impacted, and access to provisions and services are restricted. This project will design the existing dunes on the eastern side of Corn Neck Road to better protect the road from storm surge. Planning for dune modifications will include a realignment of Scotch Beach Access Road to be sinuous, encouraging dune expansion and narrowing of several pathways created by foot traffic while maintaining beach access. Within the Town Beach parking lot, underground infiltration and rain garden and pinned along Corn Neck Road to address on-going drainage and improve water quality.

13. Grantee: Newport

Project Name: *King Park Shoreline Resilience Improvements*

Award: \$2,392,884

King Park is a historic, coastal city park located in the Fifth Ward Neighborhood on the southern side of Newport Harbor along Wellington Avenue. The vertical seawall on the eastern side of the park is failing and needs to be repaired. Currently, higher tides and storm events overtop the wall and have caused erosion behind the vertical wall, compromising the City's Harbor Walk at this location. On the western side of the park, a small beach is bordered by a grass area with the boat ramp and dingy rack to the south. Erosion along the edge of the beach is negatively affecting public access and jeopardizing the dingy/kayak storage area.

This project looks to remove the easternmost section of the seawall to expand the beach and plant salt tolerant plants inland of the expanded beach area. For the remaining seawall that is adjacent to a ball field, a sewer pump station, a storm drain outfall, and another seawall at the far eastern corner of the harbor will be constructed. The city proposes to regrade the bank to create a more dissipative slope and install rip rap wall. For the western beach, the city proposes to install coconut fiber coir logs along the eroding bank and cover them with beach sand.

14. Grantee: North Providence

Project Name: *Fruit Hill Avenue West Area Drainage Improvements*

Award: \$80,500

This project will fund the design for a new system to address chronic flooding in the neighborhood west of Fruit Hill Avenue. This area was developed in the early 1930's and was not subject to requirements for a roadway drainage system. As a result, stormwater runoff flows from the high point of Fruit Hill Avenue, unimpeded into yards and street gutters without catchment until it reaches Cottage Street. The project proposes to improve the drainage collection system in the section of the Town located just west of Fruit Hill Ave. The boundaries of this area are west of Fruit Hill Ave., north of Smith Street, south of Mineral Spring Ave and east of Standish Ave. The area encompasses approximately 62 +/- acres of neighborhood watershed area. The area floods at a high frequency and in times of low frequency storms, town forces are required to manually assist the flooded area. This project is proposed to install a modern properly size close drainage system that incorporates green infrastructure components.

15. Grantee: Pawtucket

Project Name: *Daggett Avenue Green Infrastructure Corridor*

Award: \$156,500

This project is for the planning and design work for green infrastructure in the Daggett Avenue neighborhood, making the neighborhood more resilient to flooding and heat island effects and improve water quality to impaired waters. The goal of this project is to build off a broader, City-wide initiative to expand green spaces by leveraging initial concept designs into site specific plans that can be developed along Daggett Avenue. This project relies on green infrastructure to enhance existing green spaces, increase tree shade coverage, and increase storage and treatment of stormwater runoff – all of which will culminate into quality-of-life benefits and improved climate resilience for the local residents and surrounding Environmental Justice communities.

16. Grantee: Providence

Project Name: *Public Street Waterfront Access and Green Infrastructure Project*

Award: \$1,000,000

The Public Street Waterfront Access and Green Infrastructure project will create meaningful waterfront access and introduce green stormwater infrastructure at Public Street, which connects South Providence to the water. South Providence, a racially and ethnically diverse environmental justice community, is cut off from the Providence River by I-95 and the Port of Providence. It has among the lowest incomes and highest childhood asthma rates in RI. The project will transform this uninviting, entirely paved street into a community asset by adding sidewalks, seating, vegetation, and lighting to enable safe and attractive access to the waterfront. Green infrastructure will manage stormwater from increasingly frequent and intense heavy rain events and combat the urban heat island effect while improving water quality and creating pollinator and wildlife habitat in a highly urbanized area.

17. Grantee: Providence

Project Name: Mashapaug Watershed Water Quality Improvements - Phase II

Award: \$225,000

Mashapaug Pond is an impaired waterway that is the main feed for the Roger Williams (RW) Park ponds. Water from Mashapaug feeds through a 48” pipe from an outlet at Mashapaug, through a weir box and into Roosevelt Lake and the rest of the RW Park ponds. The Parks Department proposal is to install a ‘treatment train’ in-line on the pipe at the Roosevelt Lake outlet. The treatment train will consist of a jelly fish filter, a bio-char platform with a wet vegetated swale and additional green infrastructure elements constructed adjacent to the facility to handle the overflow in larger rain events that exceed the capacity of the structures – preventing the impaired waters from entering the ponds. Both the filter, the biochar and the vegetated wet swale have demonstrated value in reducing P loading. All funds for phase II of this project will go towards construction costs which have ballooned in recent years necessitating additional funding to be allocated for this project.

18. Grantee: South Kingstown

Project Name: *Saugatucket Culvert Improvements*

Award: \$85,000

This project is the expansion of the Saugatucket Road culvert, which will address a top Resiliency Priority of the Town. The Saugatucket Road is the main arterial roadway connecting Route 1 and South Kingstown Road (Route 108) servicing both residential and industrial zones. The Saugatucket Road culvert allows for the Saugatucket River to cross under the roadway in a north to south flow. The corridor is a critical road for the movement of private, commercial, and public safety vehicles. It has experienced frequent flooding and often becomes impassable with 1-2 feet of turbulent water. The existing culvert is inadequate to address the climate-related hazard and frequent flooding. This project seeks to not only address the widening of the road as was proposed in 2016 but to redesign and construct the culvert to respond to the frequent flooding there by reducing the negative impact on Town residents and resources.

19. Grantee: Warren

Project Name: *Jamiel’s Park Living Shoreline and Landfill Closure Resilience Project*

Award: \$1,250,000

To address identified community hazards, the Jamiel’s Park project will increase local climate resilience, restore local salt marsh habitat, and improve public access to the waters of Narragansett Bay in an environmental justice (EJ) neighborhood. The proposed project will also provide secondary benefits, including stabilization of contaminated soil and solid waste and final capping of a former landfill on Belcher Cove. The goal of this project is to complete the final installment of a three-phase project for the restoration of Jamiel’s Park. Phase 3 focuses on addressing the impacts of a former landfill, on which Jamiel’s Park was constructed, on coastal erosion, flooding, water quality, and marsh degradation in Belcher Cove and the greater Palmer River. The existing salt marsh has been negatively impacted by poor water quality and local contaminants, causing degradation of the marsh and exacerbating erosion

of the shoreline. Specifically, the project goals will be achieved through the construction of a living shoreline and restoration of the salt marsh habitat along Belcher Cove.

20. Grantee: Woonsocket

Project Name: *Truman Drive Green Infrastructure Parkway*

Award: \$2,000,000

The goal of this project is to transform a 4-lane, underutilized public road (Truman Drive) to a 2-lane road and linear park that incorporates the existing Blackstone River Bike Path, providing several co-benefits to the City's residents and businesses. This vision consists of removing 1.5 of the road's travel lanes, and an adjacent City-owned parking lot, and converting the unused paved surfaces into a linear park. These landscape elements would be used to implement nature-based solutions to treat stormwater while providing direct and indirect recreational, economic, and public health benefits to the City and Environmental Justice communities.