FY20 Completed Action Grant Summaries

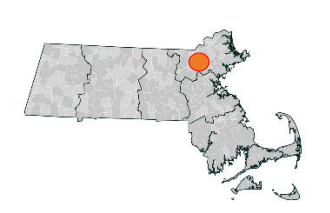
Municipal Vulnerability Preparedness Program

MA Executive Office of Energy and Environmental Affairs

53 River Street Dam Removal

MVP
Municipal Vulnerability Preparedness

Acton FY20



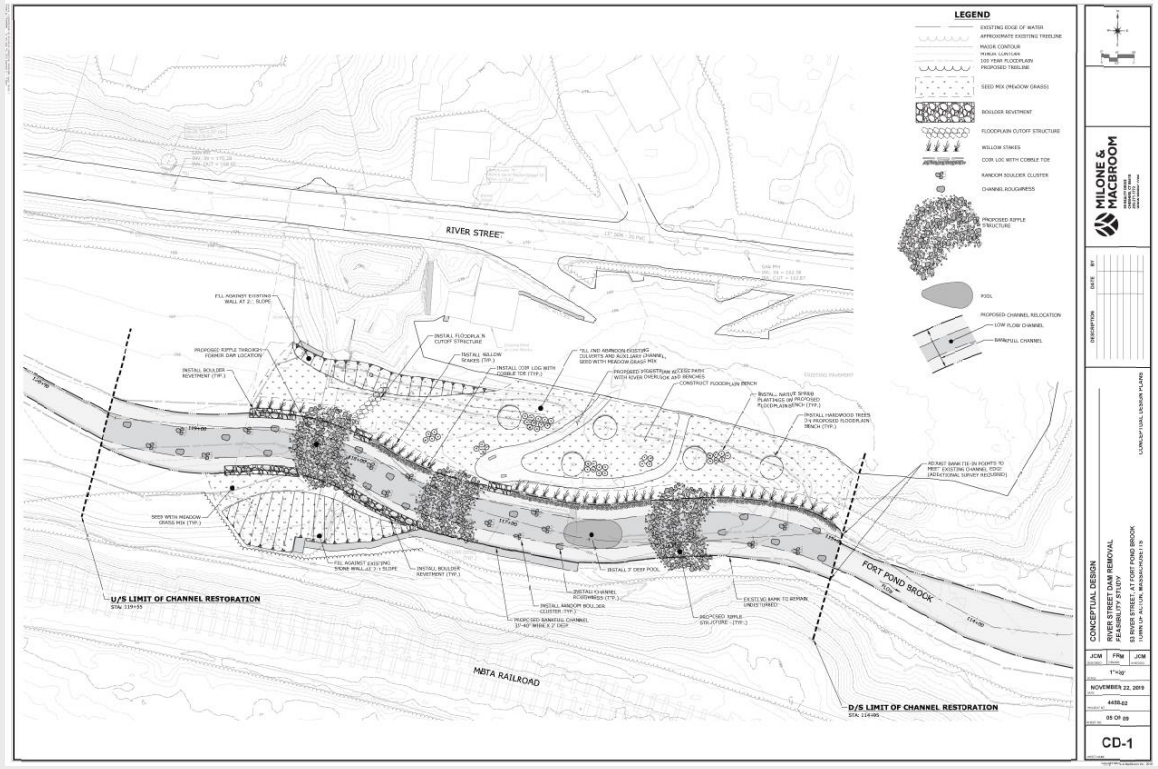
AWARD $150,000

PROJECT TYPE Design and Permitting

CORE PRINCIPLES DEMONSTRATED Nature Based Solutions

DESCRIPTION The Town sought designs and obtained permits to remove the dam and associated structures at 53 River Street to increase flood resiliency

The vision for the area includes river restoration and a public recreational area



FY20 Action Grant Projects

Amesbury Open Space and Recreation Plan Update

Amesbury

MVP Grant: $37,500
Match Amount: $12,538
Total Project Cost: $50,038

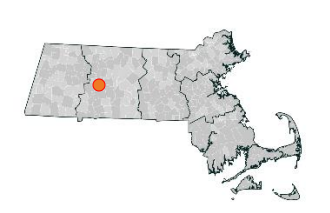
Project Priorities:

- Prepare a 2020-2027 Open Space and Recreation Plan.
- Integrate planning to increase the resiliency of vulnerable populations into the OSRP planning process.
- Integrate downscaled climate data for the Merrimack River Watershed.
- Integrate the information and mapping generated during the MVP expanded scope NRIA project into the OSRP planning process and the final OSRP.
- Provide community outreach and education as part of the OSRP planning process to educate the Amesbury community on opportunities to increase climate resilience, particularly nature-based solutions, and to educate the Amesbury community about the OSRP and associated opportunities.

Climate Action, Adaptation and Resilience Plan

MVP
Municipal Vulnerability Preparedness

Amherst FY 20



Learn more:

[Climate Action, Adaptation and Resilience Plan]

AWARD $100,000

PROJECT TYPE Detailed Planning Document; Community Outreach and Education; Energy Resilience Strategies

CORE PRINCIPLES DEMONSTRATED Utilizing climate change data for a proactive solution; Increasing equitable outcomes for and supporting strong partnerships with EJ and climate vulnerable pops.; Conducting robust community engagement

DESCRIPTION Development of a Climate Action, Adaptation and Resiliency Plan that proposes ambitious goals for decarbonization, movement towards 100% renewable energy and resiliency strategies developed through a process of widespread and equitable community engagement

Aerial view of Amherst
Photo credit: Lion Hirth

1. Amherst's Climate Goals

- 25% below 2016 levels by 2025
- 50% below 2016 levels by 2030
- Carbon neutrality compared to 2016 levels by 2050

2. Plan Principles

- Equity, Accessibility, and Belonging
- Racial and Climate Justice
- Local Wealth Creation and Fair Distribution
- Community Involvement and Connections

Evaluating Strategies for Action

- **Emissions and Costs**
- **Equity and Resilience**
- **Leaders, Partners, Existing Resources**
- **Metrics, Milestones, Readiness**

FY20 Action Grant Projects

Development Protection Measures for Vulnerable Drinking Water Supply Areas and Evaluate Green Bridge Design

Auburn

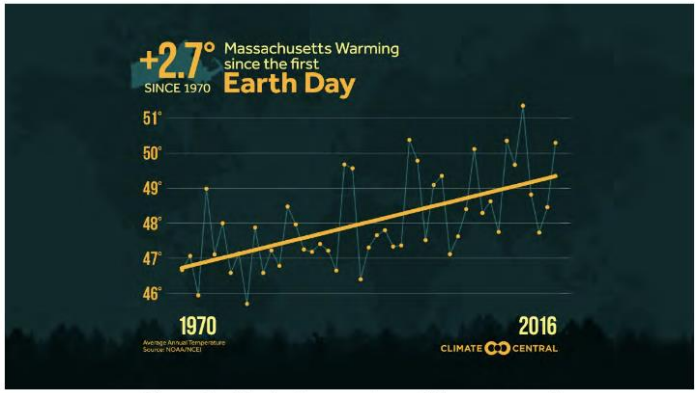


Figure 1 – Rise in Average Annual Temperatures[1]

Project Priorities:

- Document high-risk areas and stormwater outfalls on town and state roadways
- Prioritize areas at high risk of stormwater contamination
- Develop protection measures to reduce and eliminate potential contamination to the town's drinking water supply

MVP Grant: $145,452
Match Amount: $50,133
Total Project Cost: $195,585

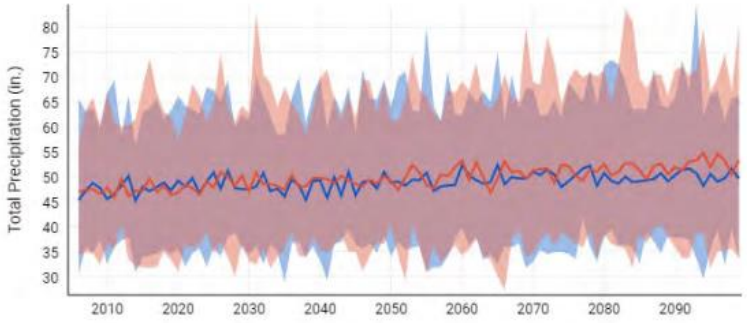
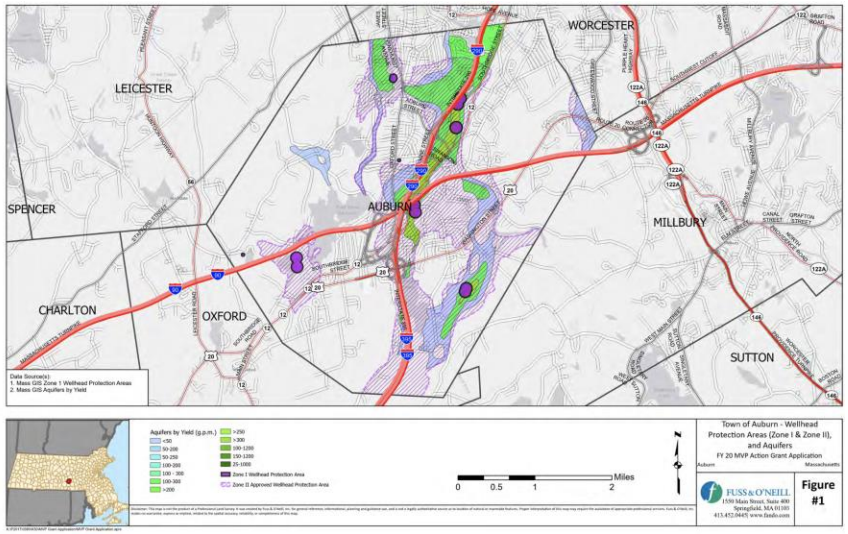


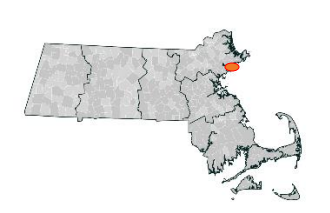
Figure 2 – Projected Increase in Annual Precipitation: Worcester County[7]



Resilient Together: Beverly and Salem's Climate Action and Resilience Plan

MVP
Municipal Vulnerability Preparedness

Beverly/Salem FY 20



Learn more:

[Resilient Together Dashboard]

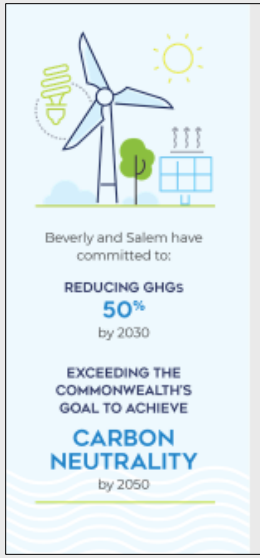
AWARD $187,500

PROJECT TYPE Detailed Planning Document; Community Outreach and Education; Local Plan

CORE PRINCIPLES DEMONSTRATED Utilizing climate change data for a proactive solution; Conducting robust community engagement; Achieving broad and multiple community benefits; Utilizing regional solutions toward regional benefit

DESCRIPTION

- Developed regional climate action plan as roadmap to accomplish carbon neutrality by 2050.
- Utilized extensive community outreach methods to solicit and receive feedback from a significant and diverse range of community members.
- Included GHG emissions for both cities and separate toolkits for both residents and businesses, as well as online dashboard to continue outreach.



Shared Vision

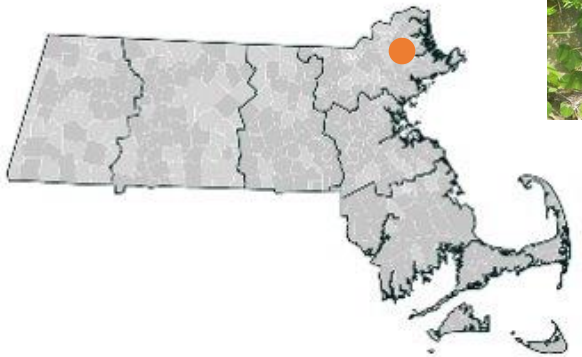
The Cities of Beverly and Salem, through the collective action of Resilient Together, will embrace both short-term and long-term solutions that reduce greenhouse gas emissions to achieve carbon neutrality by mid-century while ensuring that our communities are resilient to the impacts of climate change.

In doing so, Beverly and Salem will remain inclusive and thriving communities, attractive and accessible to diverse families and businesses, for generations to come.

FY20 Action Grant Projects

Increasing regional flood resiliency through re-designing culverts in the Howlett Brook Watershed

Boxford



Project Priorities:

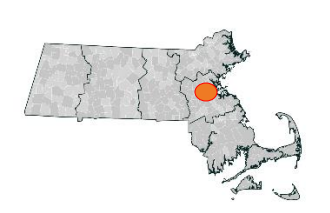
- Complete comprehensive regional culvert design project
- Provide 12 30% design plans based on the MA Stream Crossing Standards and future modeled climatic conditions
- Position the towns to pursue implementation funding, and when implemented, increase flood resiliency, reduce community risk, and restore natural habitats.

MVP Grant: $45,855
Match Amount: $18,882.50
Total Project Cost: $64,737.50

Urban Forest Climate Resiliency Master Plan

MVP
Municipal Vulnerability Preparedness

Brookline FY20



[Urban Forest Climate Resiliency Master Plan Project Webpage]

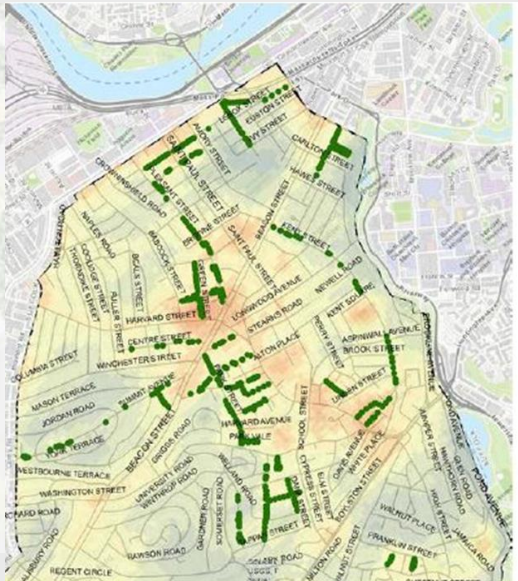
AWARD $112,500

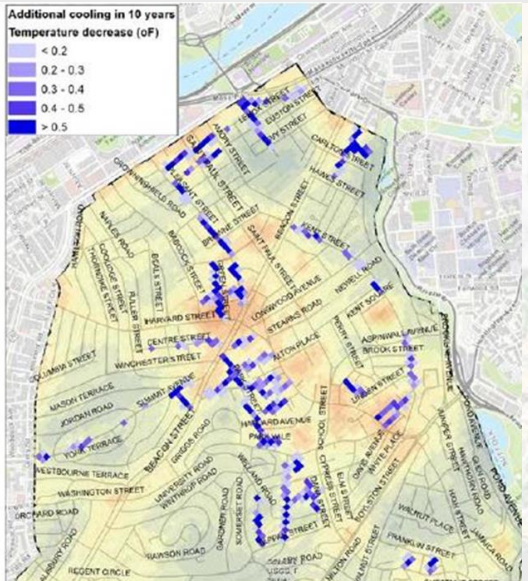
PROJECT TYPE Local Bylaws, Ordinances, Plans and Other Management Measures

CORE PRINCIPLES DEMONSTRATED Employing Nature-Based Solutions; Furthering a Community Identified Priority Action to Address Climate Change Impacts; Increasing Equitable Outcomes for & Supporting Strong Partnerships with EJ Populations and Climate Vulnerable Populations

DESCRIPTION

- Conducted a 3-part inventory of Brookline's urban forest (LiDAR, Stem-by-Stem, Soils)
- Evaluated needs across Brookline and identified areas/communities that are under-served in terms of tree planting and/or are more vulnerable to the impacts of climate change
- Developed actionable goals and recommendations to enhance the resiliency of Brookline's urban canopy to the impacts of climate change and to ensure equitable distribution of canopy.

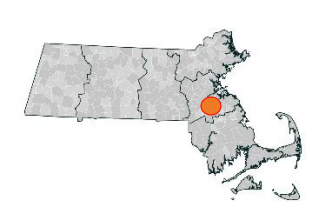




Canton Climate Change Vulnerability and Resiliency Assessment Study

MVP
Municipal Vulnerability Preparedness

Canton FY20



Learn More:

https://www.town.canton.ma.us/869/Flood-Mitigation

AWARD $337,500

PROJECT TYPE Climate Risk and Resiliency Study

CORE PRINCIPLES DEMONSTRATED Opportunity to use nature-based solutions to mitigate inland flooding caused by climate change

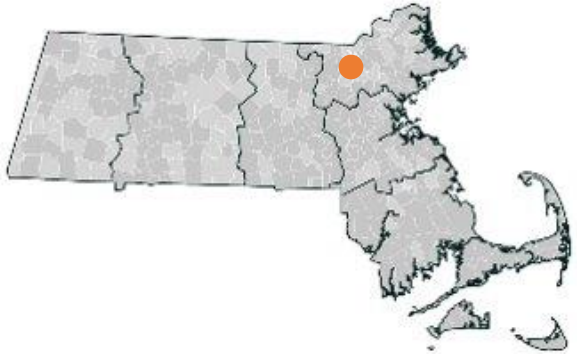
DESCRIPTION

- Used hydraulic and hydrologic modeling coupled with a community risk assessment to identify areas of high risk due to future inland flooding
- Identified a mix of nature-based storage and green infrastructure opportunities, active dam management, and gray infrastructure upgrades to mitigate future flooding Town-wide
- Community engagement included interactive workshops (virtual) to hear from residents their areas of flooding concern, developing public education tools for flood awareness

FY20 Action Grant Projects

Dunshire Drive Phase 1: Culvert Replacement and Deep Brook Stream Replacement

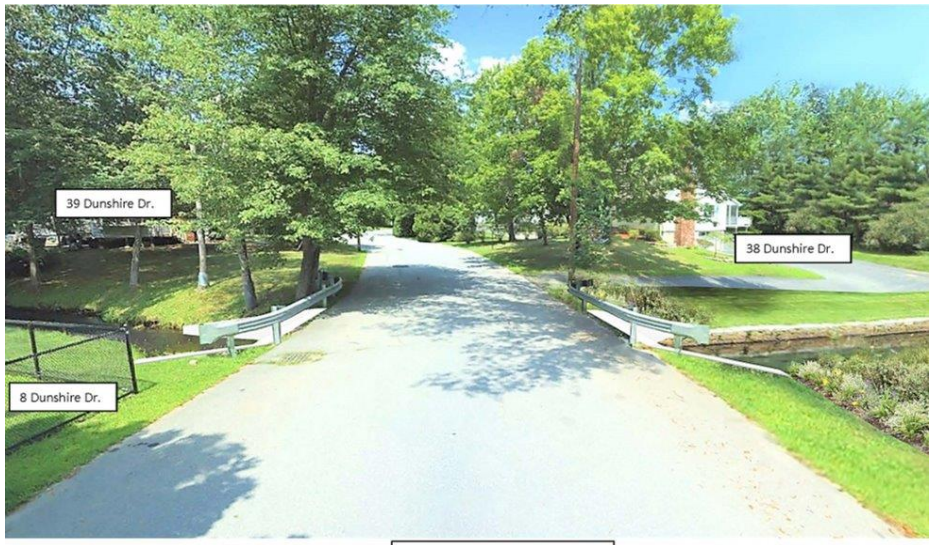
Chelmsford



MVP Grant: $83,545

Project Priorities:

- Redesign undersized infrastructure
- Develop ecological and stream restoration plan
- Increase resiliency of neighborhood and its roadways, and reduce flooding



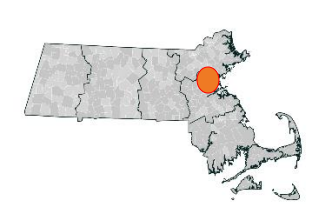
West Culvert Looking Northwest

Deteriorating west roadway

Island End River Flood Resilience Project
City of Chelsea & City of Everett

MVP
Municipal Vulnerability Preparedness

Chelsea & Everett FY20-FY21



Learn More:

- Island End Park Resilient Design
- Island End River Flood Resilience Project

AWARD $454,555.00

PROJECT TYPE Design, Permitting, Analysis, Financing

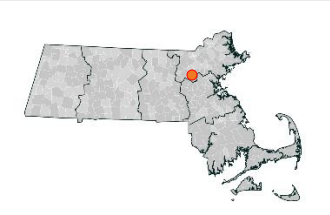
CORE PRINCIPLES DEMONSTRATED Employing Nature-Based Solutions; Increasing equitable outcomes for and supporting strong partnerships with EJ Populations, Utilizing regional solutions towards regional benefit; Furthering community identified priority action to address climate change impacts

DESCRIPTION

- Conducted deep community engagement within the context of flood resilience and broader climate impacts with residents, schools, stakeholders
- Completed environmental analysis, permitting, land acquisition, engineering, and design of coastal barrier solution in Chelsea and a portion of Everett
- Engaged state level and federal level entities to assess feasibility of permitting, financing, and implementation of a flood barrier at the Island End River flood pathway

Reducing Flooding Vulnerability in Deerfield

Deerfield



REGION Northeast

AWARD $572,250 (FY20)

MATCH $192,888

PROJECT TYPE Action

CORE PRINCIPLES DEMONSTRATED Community Outreach and Education, Local Bylaws, Ordinances, Plans, and Other Management Measures, Redesigns and Retrofits, Nature-Based Flood Protection

PRIORITIES

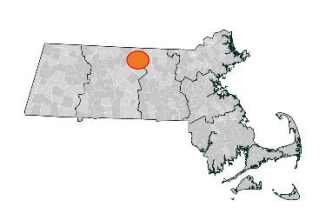
- Replacement of the top priority Kelleher Drive failed culvert with more resilient culvert with improved wildlife passage
- Installation green streets infrastructure in the town center and rain gardens at the Deerfield Elementary School.
- Design of green parking lots at Frontier Regional High School and in the town center
- Design of a new green entranceway at Deerfield Elementary School and the design of green streets and rain gardens
- Revisions to Deerfield zoning and other bylaws to promote climate resiliency and low impact development
- Engaging Deerfield youth at Frontier High School in working on climate resiliency.

Deerfieldma.us

MVP
Municipal Vulnerability Preparedness

Wheelock Street Culvert Replacement Design

Erving FY20



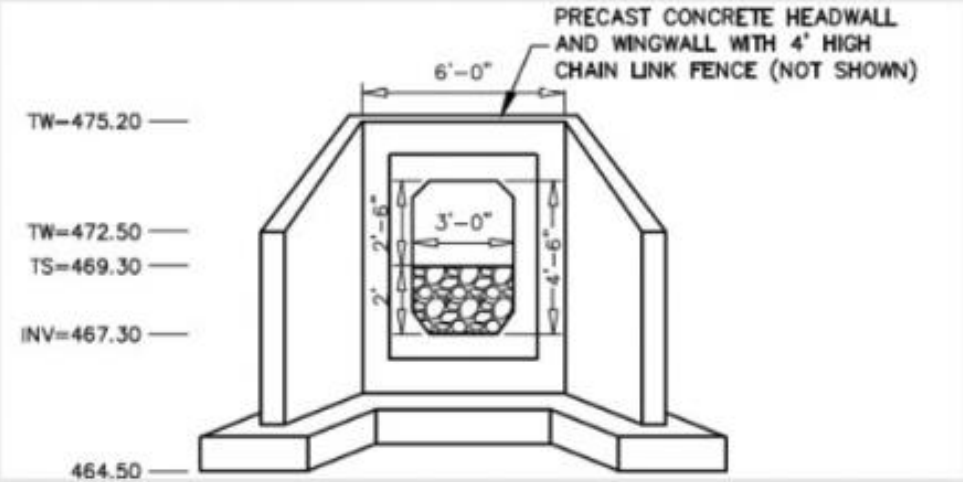
AWARD $40,000

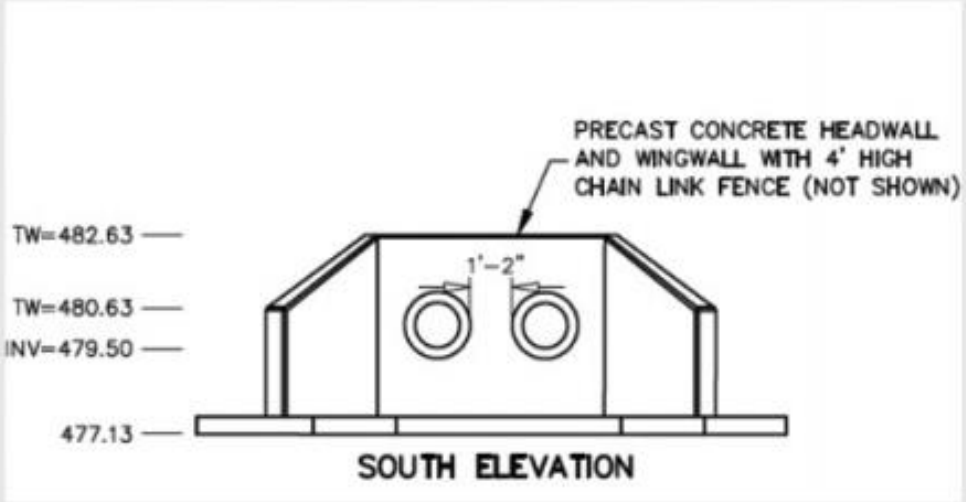
PROJECT TYPE Design and Permitting

CORE PRINCIPLES DEMONSTRATED Addressing climate change impacts

DESCRIPTION Replaced two failing and undersized stream crossings:

- 30" CMP replaced with 3' x 4.5' precast concrete box culvert lined with native stone
- 12" HDPE replaced with two 15" reinforced concrete pipes and concrete headwalls
- Wetland replication area
- No unnecessary PVC coating on chain-link safety fence to reduce plastics use and the environmental and human health impacts of PVC production

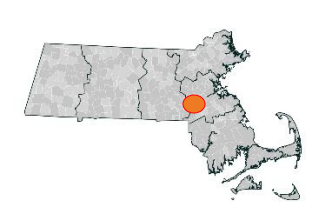




Walnut Street Flood Mitigation Study

MVP
Municipal Vulnerability Preparedness

City of Framingham, FY20



Learn more:

- City of Framingham MVP Report
- Stormwater Management in Framingham

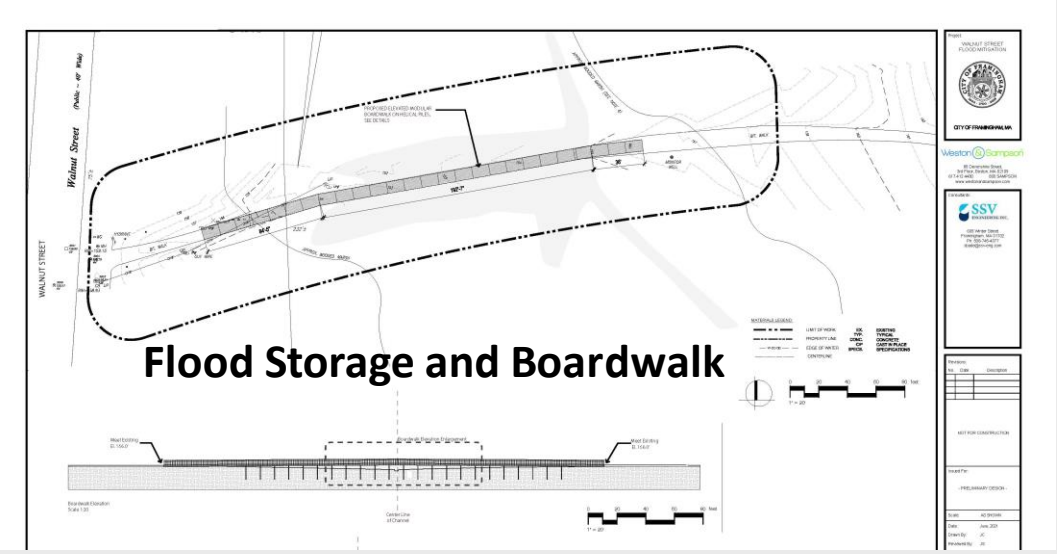
AWARD $207,000 (grant total); $152,000 for flood study

PROJECT TYPE Flood Mitigation Designs

CORE PRINCIPLES DEMONSTRATED Nature based flood protection, reduce vulnerability to climate change impacts, ecological restoration/habitat management

DESCRIPTION

- Developed and evaluated flood mitigation design alternatives
- Enhanced flood storage capacity
- Restoration and ecological enhancement to return natural habitat and function to floodplains



FY20 Action Grant Projects

Land Acquisition for Conservation

Cuttyhunk Land Conservation Project

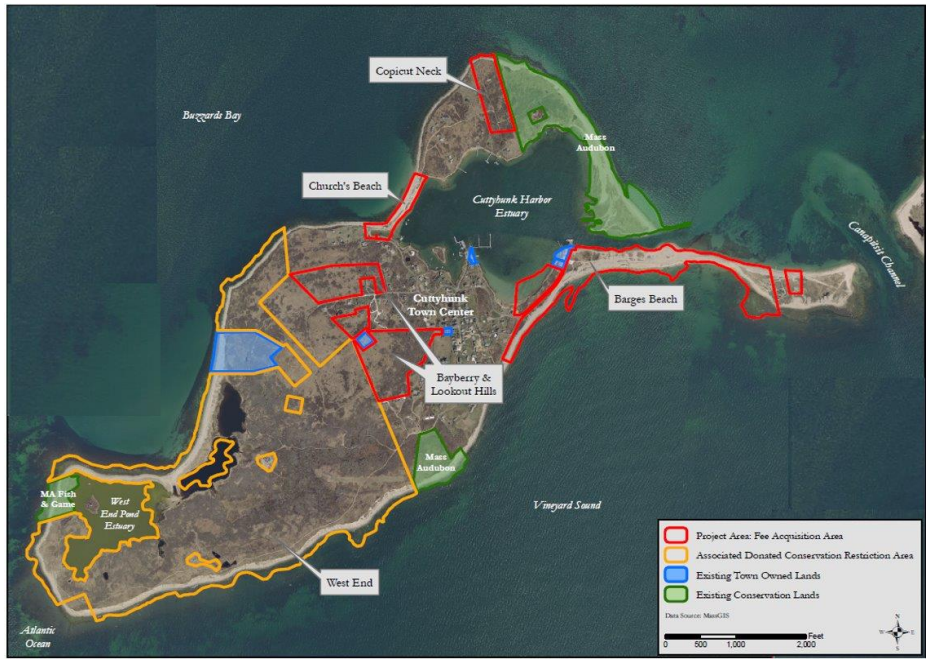
Gosnold

View to Barges Beach

Project Priorities:

- The direct purchase of land by the Town of Gosnold and their partner the Buzzards Bay Coalition (67 acres)
- Purchase of permanent conservation restrictions on these lands
- Protect harbor for public safety and protect drinking water source as well as prevent future development

MVP Grant: $1,400,000
Match Amount: $466,667
Total Project Cost: $1,866,667

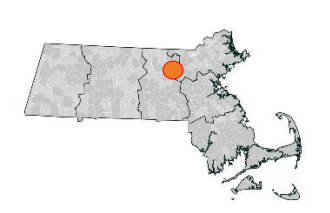


Lookout Hill Shrubland

Harvard Climate Action and Land Stewardship Plan

MVP
Municipal Vulnerability Preparedness

Harvard FY20



Primary Project/Program Website
https://www.harvardsclimateinitiative.org/
Agricultural Climate Action Plan Website
https://harvardgrown.org/

AWARD $70,860

PROJECT TYPE Detailed Vulnerability and Risk Assessment and Further Planning; Community Outreach and Education; Local Bylaws, Ordinances, Plans, and Other Management Measures

CORE PRINCIPLES DEMONSTRATED Furthering a community identified priority to achieve broad and multiple community benefits

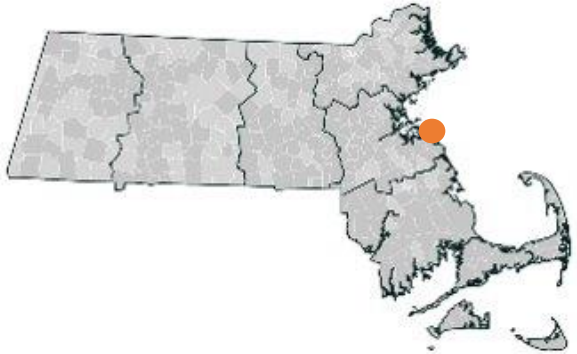
DESCRIPTION Development of an Agricultural Sector Climate Action Plan and the outline and high-impact actions for a full Climate Action Plan. The Agricultural Plan also included a full marketing and branding program, logo, website, map, and brochure.

FY20 Action Grant Projects

Vulnerability Assessment and Nature based solutions

Assessment of Shoreline Resiliency Alternatives for Marginal Road, Hull

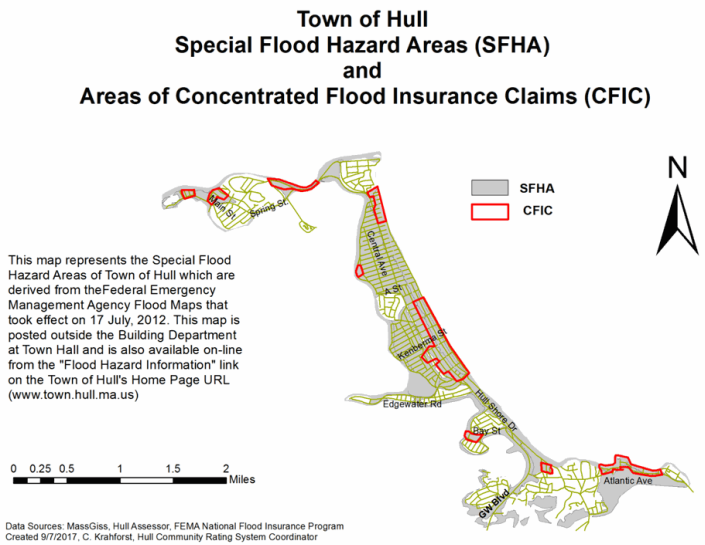
Hull



MVP Grant: $25,373
Match Amount: $8,850
Total Project Cost: $34,223

Project Priorities:

- Flood Protection Alternatives Assessment
- Improve long-term resiliency to frequent coastal storm events
- Evaluation of historical site information, coastal flooding data, and future sea level rise information
- Coastal processes analysis



Nantasket Beach

FY20 Action Grant Projects

Ipswich River Sewer Interceptor and Siphon Risk Mitigation and Resiliency Improvements Design

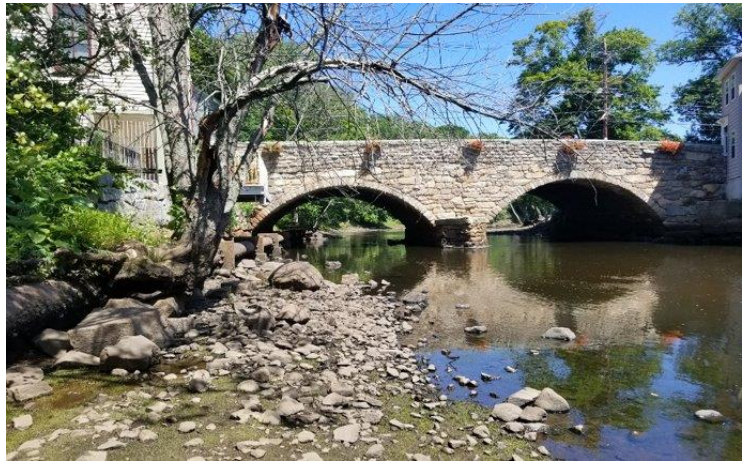
Ipswich

MVP Grant: $18,945
Match Amount: $7,093
Total Project Cost: $26,038

Project Priorities:

- Nature Based Solutions to stabilize and improve natural systems
- Resiliency of sewer system to protect properties, natural habitat, and beaches
- Reduce riverbed scour
- Establish marine habitat

Vulnerable Sewer Interceptor



Ipswich river flooding of local business

Strawberry Brook Watershed Flood Relief

Lynn

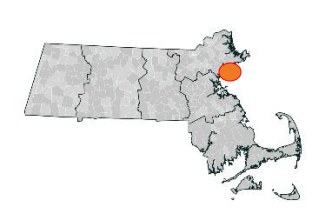
MVP Grant: $112,500
Match Amount: $37,500
Total Project Cost: $150,000

Project Priorities:

- Develop hydraulic model to understand stream and stormwater flows
- Assess drainage system to identify deficiencies
- Explore channel cleaning and culvert improvements to improve flow
- Evaluate climate factors that could have future impacts

Sawmill Brook Central Pond Restoration Project Phase 2: Permitting and Design

Manchester By The Sea FY20-21



https://www.manchester.ma.us/354/Sawmill-Brook-Watershed-Project

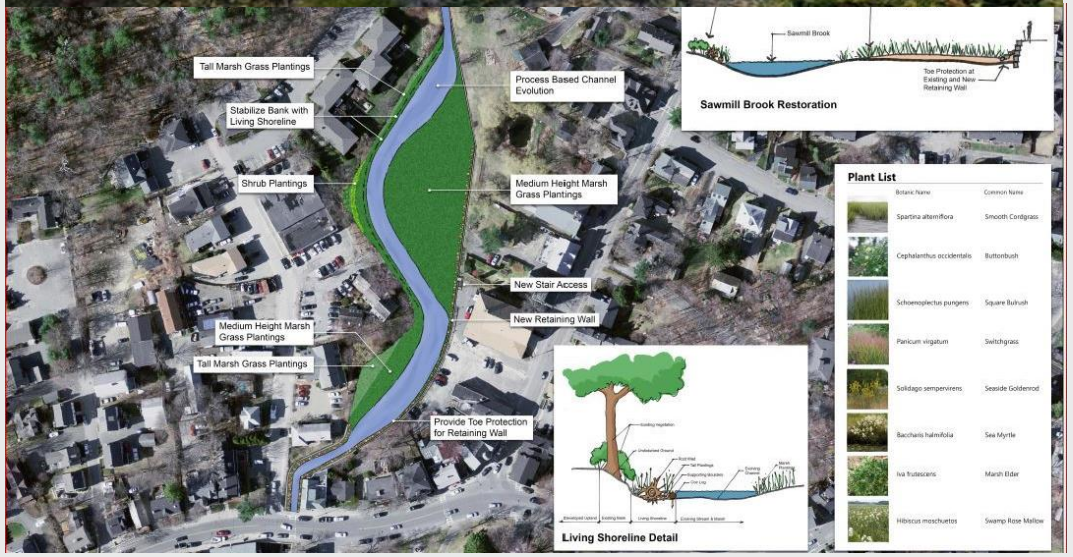
AWARD $72,385

PROJECT TYPE Design and Permitting

CORE PRINCIPLES DEMONSTRATED Utilizing climate change data for a proactive solution, Employing Nature Based Solutions

DESCRIPTION The Central Pond Restoration design entails replacing or restoring walls along the sides of the Pond (both hard and soft solutions), restoring the pond interior to a tidal salt marsh, and drainage improvement

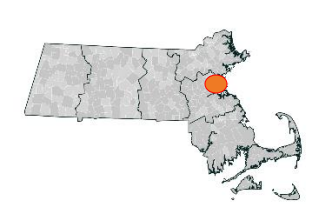
The goal for the second phase of the Central Pond Restoration is to obtain the necessary permits and develop the final design and specifications for the Pond Restoration elements in preparation for the third and final phase; construction.



Equity-Centered Process for Climate Action and Adaptation Planning

MVP
Municipal Vulnerability Preparedness

Medford / 2019-2021



More information coming soon at:

https://medfordenergy.org/gogreen/confronting-climate-change/

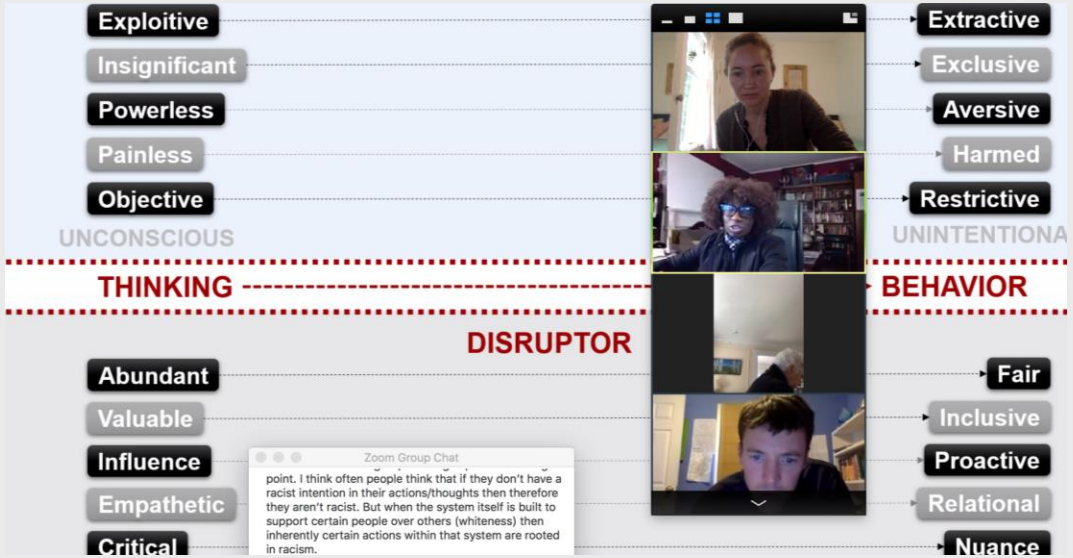
AWARD $36,136

PROJECT TYPE Community Outreach and Education

CORE PRINCIPLES DEMONSTRATED Centering equity and the lived expertise of environmental justice communities

DESCRIPTION

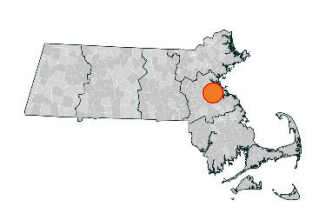
- Held one of a series of bilingual community dinners (modified due to the pandemic)
- Hosted an equity workshop to build a shared understanding of how addressing racism is central to climate planning
- Convened Outreach & Community Collaboration Working Group to center lived expertise of low-income communities and communities of color in Medford



Suitability Assessment for Equitable, Community-Driven Resilience Hubs in Medford

MVP
Municipal Vulnerability Preparedness

Medford FY20



Project Webpage:
http://www.medfordma.org/resiliency-hubs/

AWARD $ 65,259.00

PROJECT TYPE Planning, Assessments, Capacity-Building, and Regulatory Updates

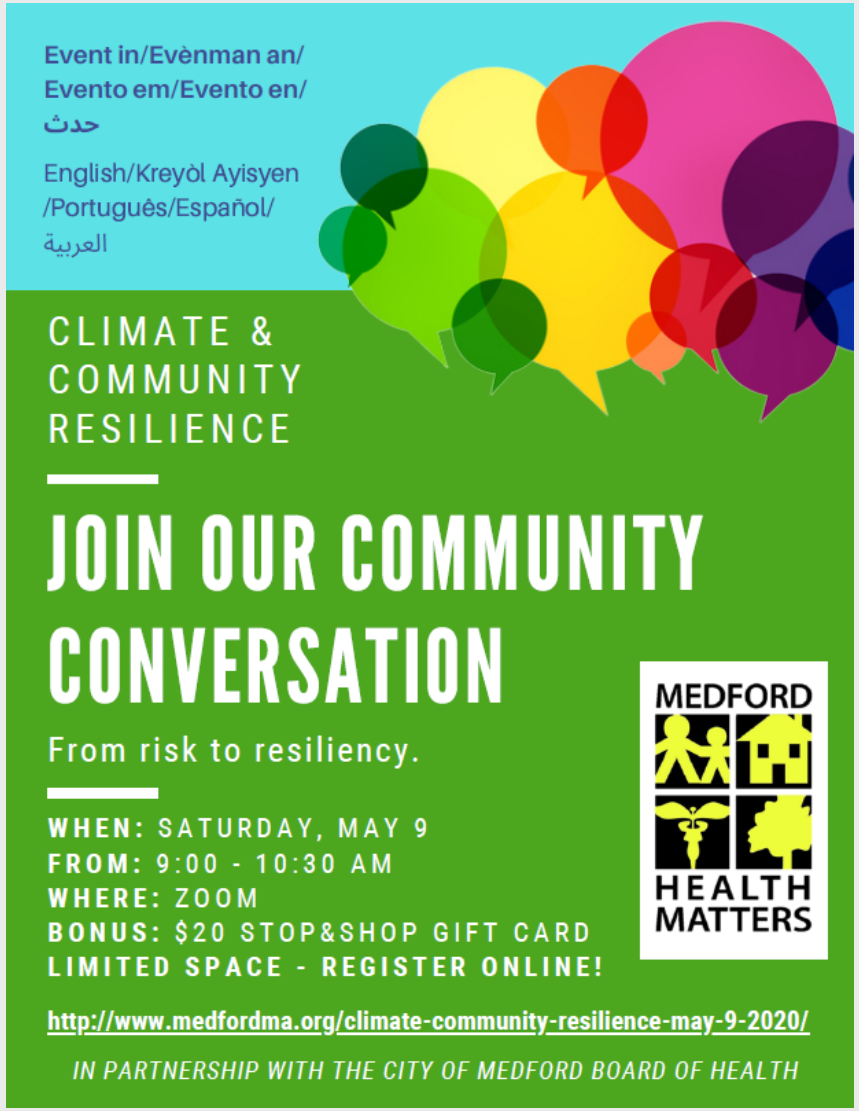
CORE PRINCIPLES DEMONSTRATED Increasing equitable outcomes for and supporting strong partnerships with Environmental Justice (EJ) Populations and Climate Vulnerable Populations; Conducting robust community engagement; Achieving broad and multiple community benefits; Pursuing innovative, transferable approaches

DESCRIPTION

The Resilient Medford Resilience Hubs project aims to assess Medford's ability to withstand climate events from a public health perspective by 3 main tasks.

- Task 1 - Justly identify priority service areas for a pilot Resilience Hub based on neighborhood resources, sensitivity to climate change, and adaptive capacity.
- Task 2 - A) Evaluate adaptability of vulnerable residents and gauge community provider's readiness to climate impacts. B) Listen to residents on resilience concerns to amplify the voices of residents facing social inequities. Engage providers in discussions to understand resilient programming that would support their constituents.
- Task 3 - Explore areas within the identified service areas that may accommodate resilient programming, share the requirements of a Resilience Hub site and recommendations to advance equitable community resilience.

Results: The assessment revealed that residents were intrigued by Resilience Hubs but were skeptical of reliable community engagement and questioned for whom Hubs would truly serve. Similarly, local providers were interested in Resilience Hubs, but would like to further understand how a physical space would be attained and how a multi-use, co-located space would operate. It is clear that next steps must first lay a foundation of trust between community and City Hall through inclusive outreach and an active commitment from the city to practice anti-racism. Further planning is also needed to organize Resilience Hub coordination, communications, and operations.

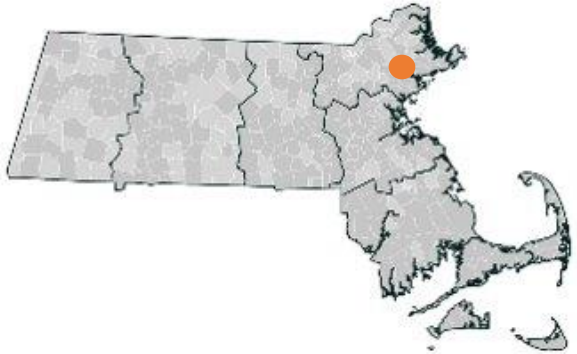


FY20 Action Grant Projects

Nature Based Flood Solutions

City Hall Parking Lot Green Infrastructure Design

Melrose

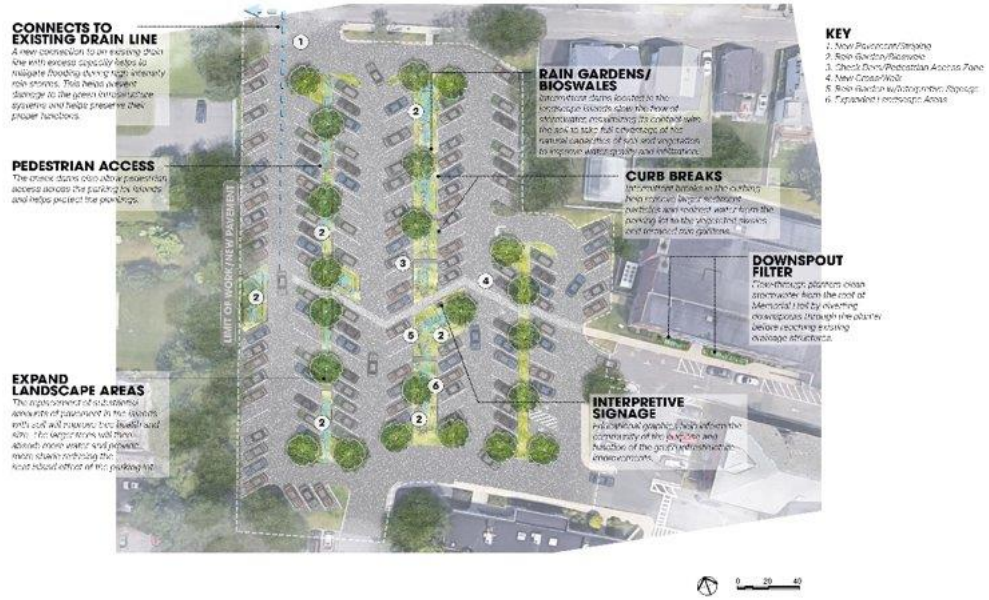


MVP Grant: $70,313
Match Amount: $23,428
Total Project Cost: $93,741

City Hall Parking Lot

Project Priorities:

- Create rain gardens/bioswales to mitigate flooding in the parking lot from Dix Pond
- New drain line connections to the lot, improve stormwater filtration
- Replace paved areas with landscaping
- Educate the public with signage



New Design for Lot

FY20 Action Grant Projects

- Detailed Vulnerability and Risk Assessment and Further Planning
- Community Outreach and Education,
- Nature-Based Flood Protection
- Ecological Restoration and Habitat Management to Increase Resiliency

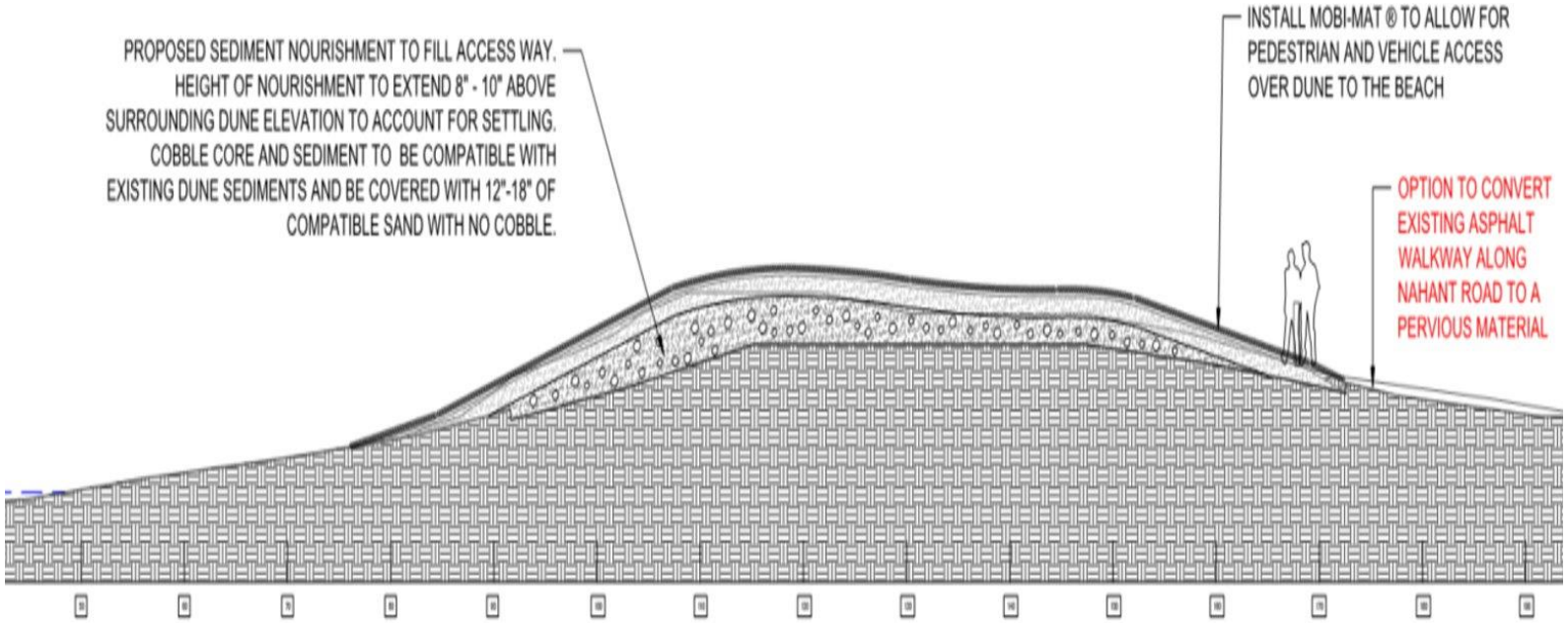
Nahant

MVP Grant: $35,565
Match Amount:$12,548
Total Project Cost: $48,113

Increasing the Resiliency of Short Beach on Nahant to Sea Level Rise: Access Point Restoration and Modification Plan

Project Priorities & Results:

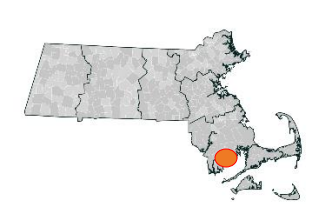
- Public Signage installed to educate community on Grant & Dune Grass as well as protective signage
- Public Outreach – Library Newsletter & Publications, Beach Cleanup and Dune Grass Plantings
- Permit Plans for Access Points and Dune Restoration



MC-FRM Evaluation and Resilience Design Guideline Development

MVP
Municipal Vulnerability Preparedness

New Bedford and Fairhaven FY20



https://www.newbedford-ma.gov/environmental-stewardship/municipal-vulnerability-preparedness/

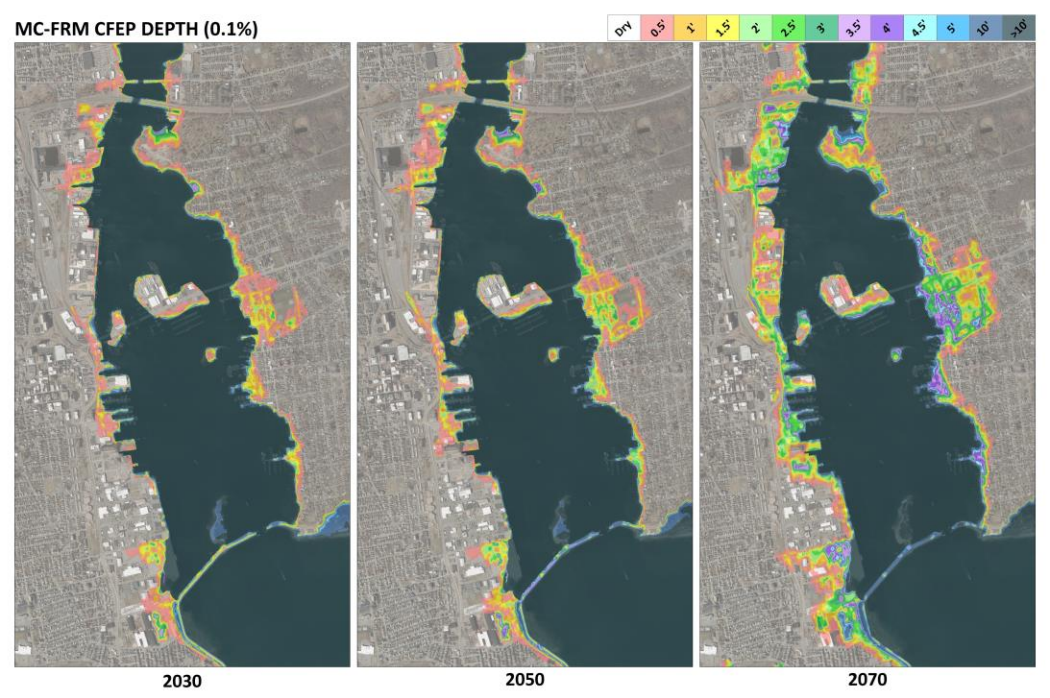
AWARD $58,662

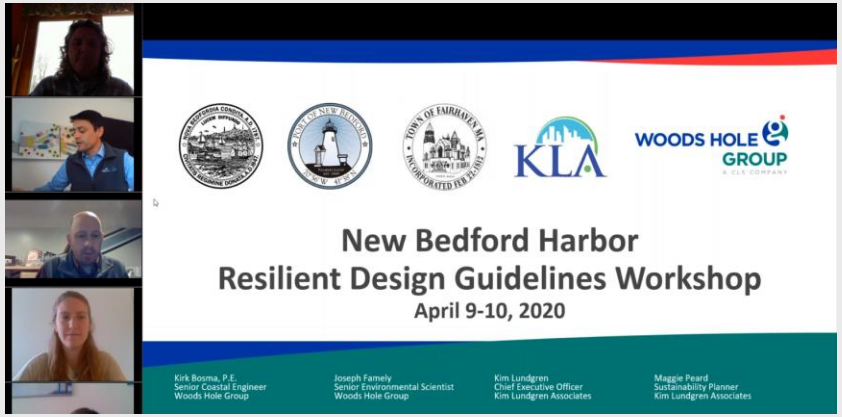
PROJECT TYPE Detailed vulnerability and risk assessment and further planning, Community outreach and education

CORE PRINCIPLES DEMONSTRATED Utilizing climate data for proactive solutions, Furthering a community identified priority action to address climate change, Utilizing regional solutions for regional benefits

DESCRIPTION

- Evaluating the sea level rise projections in New Bedford Harbor
- Developing Resilient Design Guidelines based on those projections and the project design life
- Engaging landowners, developers, employers, front line workers and other stakeholders in the Harbor
- Creating a Maritime Business Resilience Toolkit

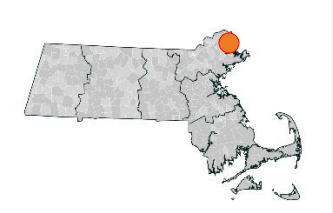




Controlling Flooding and Addressing Future Climate Impacts through Replacement of Orchard St Culvert

MVP
Municipal Vulnerability Preparedness

Newbury FY20



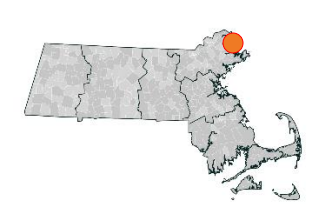
https://pie-rivers.org/portfolio-item/orchard-street-newbury-culvert-replacement/

AWARD	$126,324
PROJECT TYPE	Design and Permitting
CORE PRINCIPLES DEMONSTRATED	Utilizing climate data for proactive solutions, Achieving broad and diverse community benefits
DESCRIPTION	Design and permitting for upgrading an undersized culvert to benefit public safety, flood resilience and the ecology of the area Surveying, data collection, preliminary engineering, hydraulic analysis and geotechnical investigation

Plum Island: Exploring the Fiscal and Economic Implications of Sea Level Rise

MVP
Municipal Vulnerability Preparedness

Newbury & Newburyport FY20



https://www.plumislandsealevelrise.com/

AWARD $217,451

PROJECT TYPE Assessment

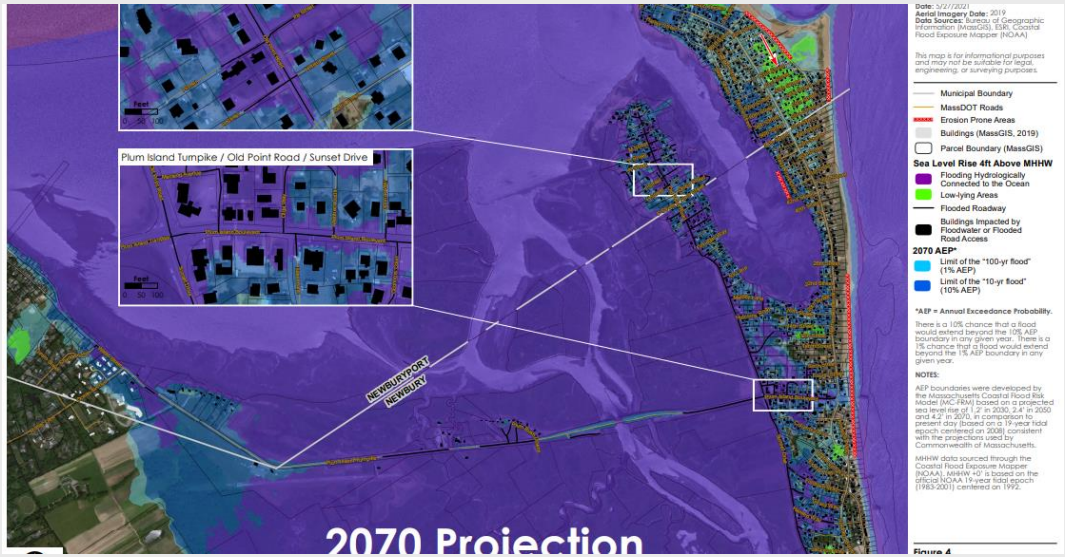
CORE PRINCIPLES DEMONSTRATED Utilizing climate data for proactive solutions, Utilizing regional solutions toward regional benefit, Pursuing innovative, transferable approaches

DESCRIPTION

The project goal was to lay the groundwork to better enable both communities to make thoughtful decisions regarding the challenges brought on by climate change for long-term planning for Plum Island

Economic and fiscal information was gathered to help the towns evaluate long-term management option for the island

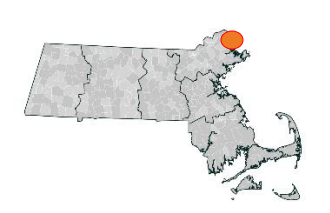
How can both communities responsibly manage the island, with all the public services that accompany that responsibility, and how can both communities prepare for change?



Resilient Critical Infrastructure: Adapting Wastewater Treatment Facility, Infrastructure, and Public Rail Trail to Future Sea Level Rise and Storm Surge

MVP
Municipal Vulnerability Preparedness

Newburyport FY 20



https://soundcloud.com/ncmhub/sets/newburyport-climate-change-adaption

AWARD	$71,160
PROJECT TYPE	Design and Permitting
CORE PRINCIPLES DEMONSTRATED	Utilizing climate data for a proactive solution, Achieving broad and diverse community benefits
DESCRIPTION	First phase of multi-year effort to protect WWTF and UGE, plus fill a critical gap in a Rail Trail network Develop design and permits for sloped stone revetment, elevated berm, and Rail Trail along 1,100’ section of shoreline Cleanup PCB-contaminated soil

MVP Action Grants: Nature-Based Solutions

Restoring Pine Grove Golf Course through removing drainage infrastructure, restoring wetlands, and reforestation (FY20)

Northampton

Award: $225,000
Project Type: Redesign and retrofits, Nature-based flood protection, drought mitigation, water quality, and water infiltration techniques
Core Principles Demonstrated: Nature-based solutions, Pursing innovative, transferable approaches
Description: Restore historic hydrology patterns and wetlands, reforest the golf course, plan for long term full site restoration

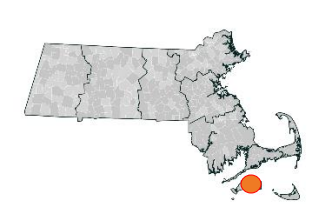
Nature-based solutions

Pilot potential

Development of an Island-wide Adaptation Strategy

MVP
Municipal Vulnerability Preparedness

Oak Bluffs (for Martha's Vineyard)/FY20



www.mvcommission.org

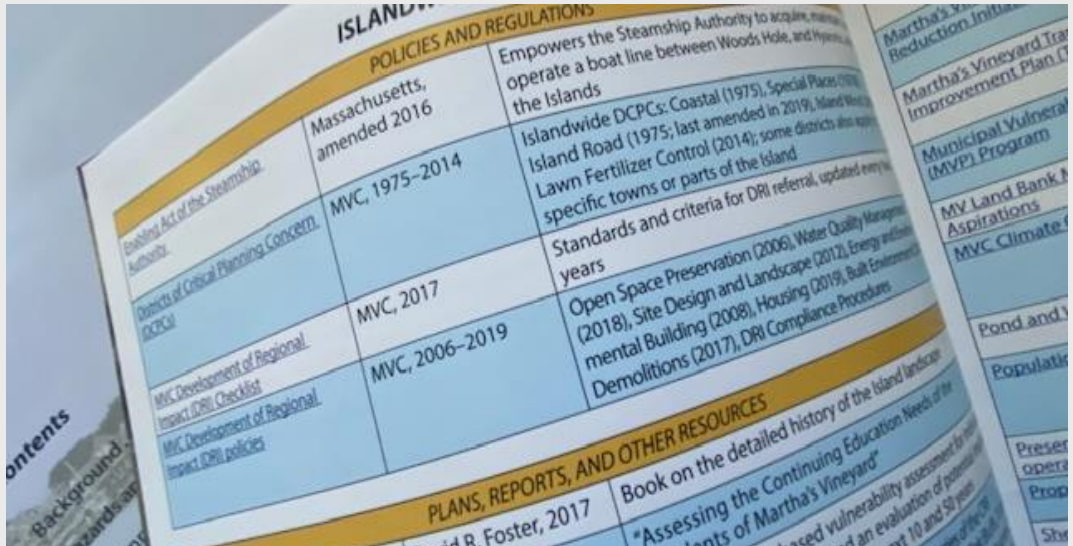
AWARD $54,000

PROJECT TYPE Phase I Climate Action Planning

CORE PRINCIPLES DEMONSTRATED Develop strong foundation for climate action plan

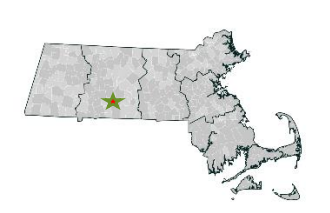
DESCRIPTION

- Gather and create database of climate-related documents
- Stakeholder listening sessions
- Develop climate adaptation resource booklets for six Island towns
- Present booklets to Select Boards



Route 181 Culvert Replacement & Culvert Infrastructure Assessment

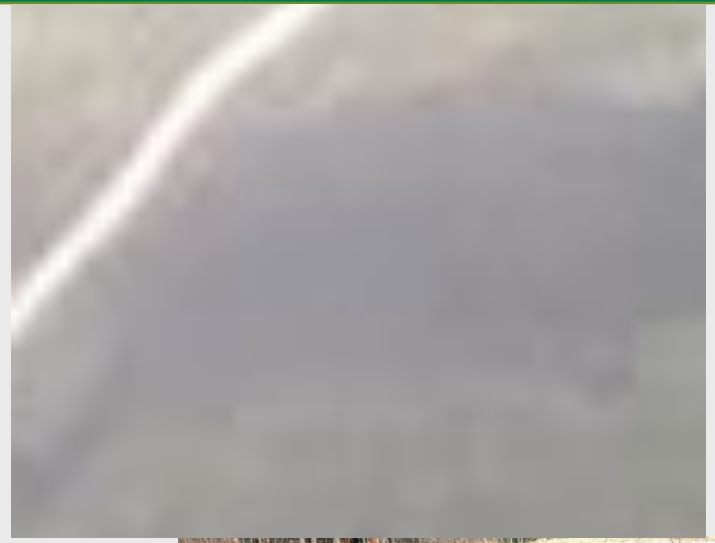
Palmer



View project documents here:

https://1drv.ms/u/s!AnrnUuT2R6xVamNOqOddd_bNzhE?e=HpnJyV

REGION	Greater Connecticut Valley
AWARD	$19,500
MATCH	$6,500
PROJECT TYPE	Permitting & Design
CORE PRINCIPLES DEMONSTRATED	Detailed vulnerability & risk assessment; Employing nature-based solutions; capacity building
PRIORITIES	Enhancement of water quality, protection of coldwater fisheries resource, restoration of natural stream processes, protection from flooding

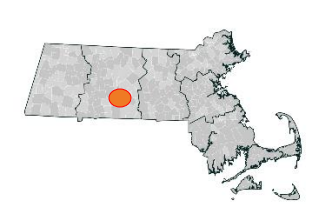


Photos of the inlet and outlet of Route 181 Culvert

Town of Palmer Master Plan

MVP
Municipal Vulnerability Preparedness

Palmer 2020-2021



To learn more:

http://www.palmermasterplan.com/

AWARD $112,500.00

PROJECT TYPE Town of Palmer Master Plan

CORE PRINCIPLES DEMONSTRATED Furthering a community identified priority action to address climate change impacts; Conducting robust community engagement; Committing to monitoring project success and maintaining the project into the future

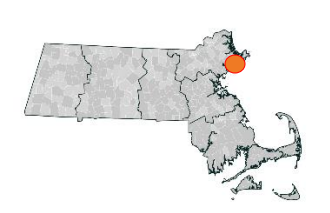
DESCRIPTION

- This project consisted of creating a ten-year Master Plan in accordance with M.G.L. c. 41, § 81D addressing the nine critical areas as well as adding new Chapters entitled Climate Adaptation and Sustainability and Planning for a Healthy Community with a corresponding Health Addendum
- The 18-month process began in March 2020 and began with a community tour, followed by 7 public forums, 2 public surveys, an economic roundtable and 14 steering committee meetings developing results for the 4 following focused efforts:

  1. Identifying Palmers' challenges & opportunities
  2. Setting Palmers' shared visions & supporting goals
  3. Developing and prioritizing supporting actions
  4. Creating an accountable implementation program

Resilient North River Canal Corridor Phase 2

Peabody FY20



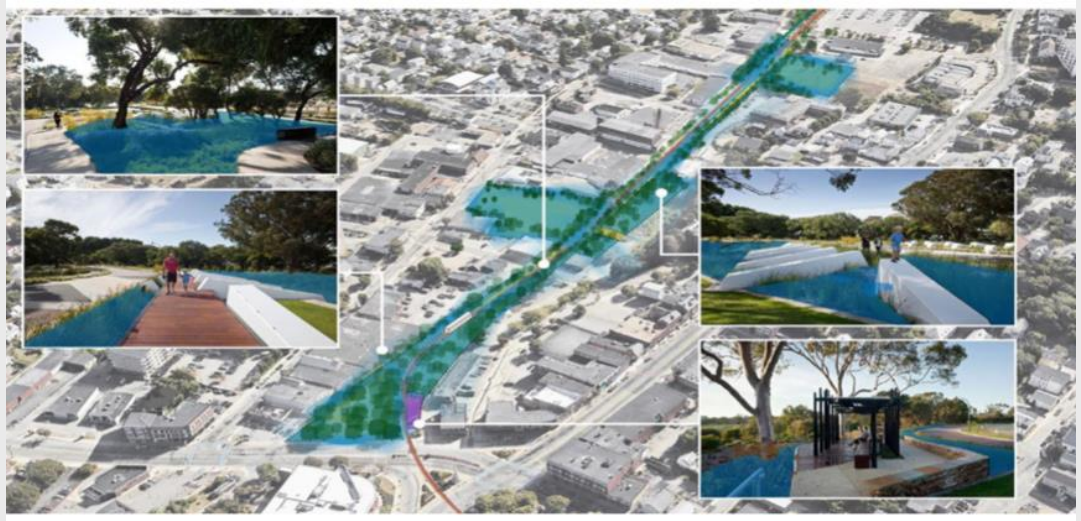
[Peabody Projects Page]

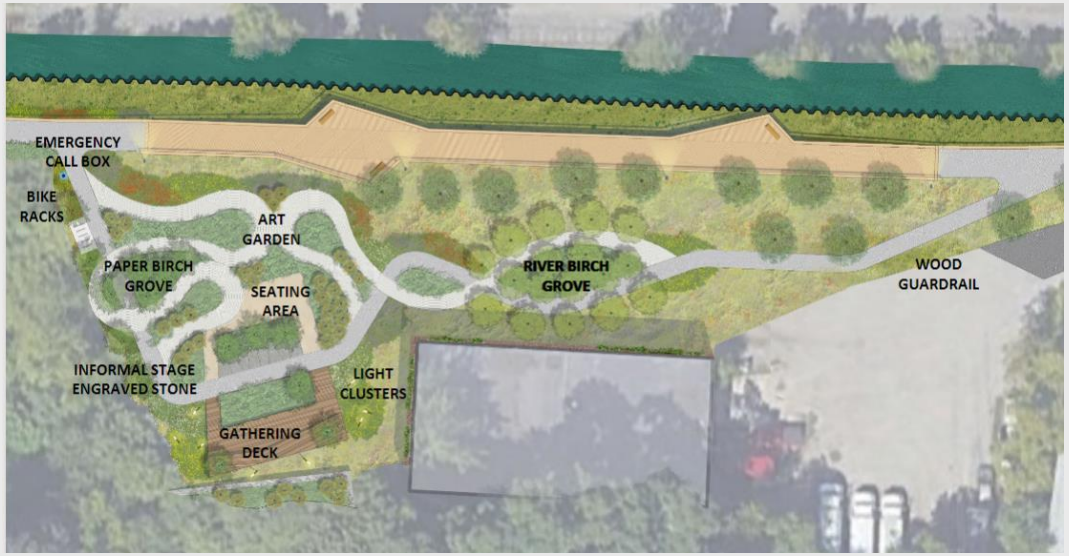
AWARD $365,014

PROJECT TYPE Design and Permitting

CORE PRINCIPLES DEMONSTRATED Utilizing climate data for proactive solutions, Regional solutions, Nature Based Solutions

DESCRIPTION Phase II of the Resilient North River Canal Corridor project included design and permitting for stabilization of the south bank of the North River and inclusion of a Riverwalk. The bank stabilization will increase flood resiliency while the Riverwalk will create a new recreational space and pedestrian corridor for multimodal transportation in an economically disadvantaged part of the community



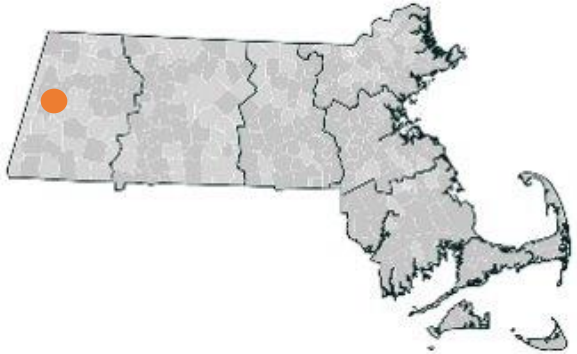


FY20 Action Grant Projects

Dam Removal and Ecological Restoration

Mill Street Dam Removal Project

Pittsfield



MVP Grant: $99,000
Match Amount: $33,368
Total Project Cost: $132,368

Project Priorities:

- Improve public safety by removing the dam
- Support an urban revitilization effort
- Improve river ecology and habitat connectivity to the West Branch of the Housatonic River

Before Removal

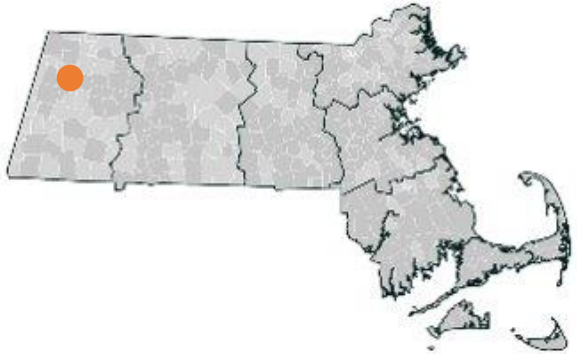
After Removal

FY20 Action Grant Projects

Culvert Replacementand Vulnerability Assessment

Transportation Infrastructure Improvement Inventory, and Prioritization Plan

Plainfield



MVP Grant: $33,550

Project Priorities:

- Culvert replacement and surface repair at Bow Street
- Undertake a road stream crossing inventory and vulnerability assessment

Culvert Replacement

Bow Street Lot 4

FY20 Action Grant Projects

Planning and Community Education

Coastal Flood Mitigation Storm Drainage Improvements – Phase 1: Engineering and Public Outreach

Quincy

MVP Grant: $164,046
Match Amount: $58,954
Total Project Cost: $223,000

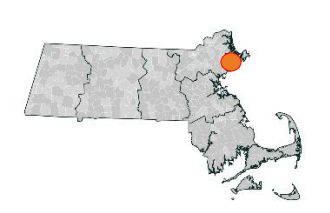
Project Priorities:

- Assessing opportunities for nature-based solutions, specifically to improve salt marsh habitat
- Engage the public with the town's efforts to make it more climate resilient
- Assess benefits of projects to improve flood protection

Ocean Ave West Pump Station Flood Mitigation

MVP
Municipal Vulnerability Preparedness

Salem FY20



https://www.salem.com/city-engineer/pages/ocean-avenue-west-pump-station

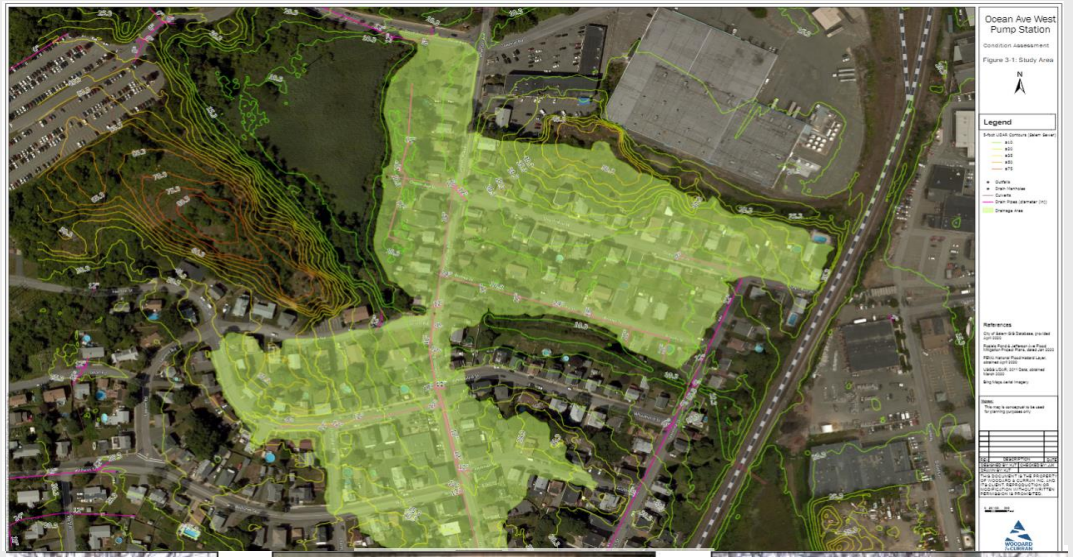
AWARD $174,750

PROJECT TYPE Assessment

CORE PRINCIPLES DEMONSTRATED Utilizing climate data for proactive solutions

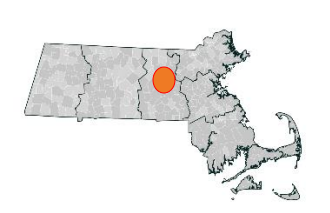
DESCRIPTION Assess and design alternatives using climate change data for potential upgrades to the Ocean Ave pump stormwater pump station

The goal of the project is to protect the low lying neighborhood of Jefferson Ave, Canal St, and Geneva St.



Shirley Microgrid Feasibility Study

Shirley FY20



Learn More:

[Meeting Minutes of the Board of Selectmen Meeting]

[Project Webpage On Shirley's Website]

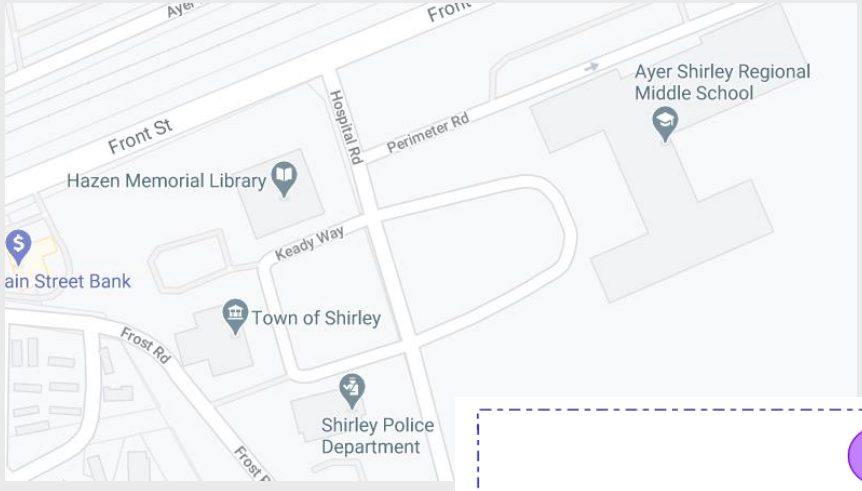
AWARD $58,794

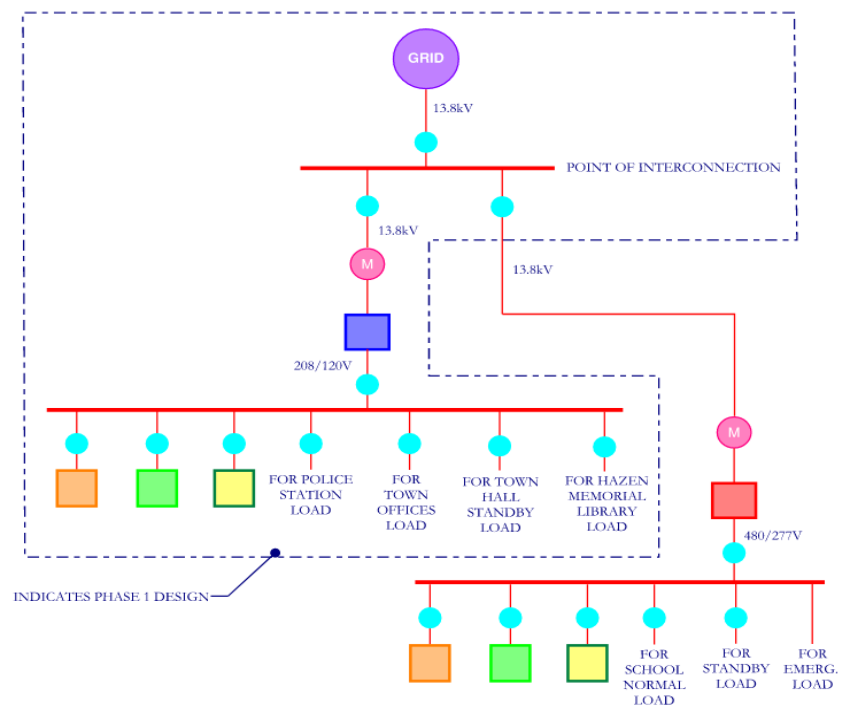
PROJECT TYPE Feasibility Study

CORE PRINCIPLES DEMONSTRATED Energy Resilience Strategies; Vulnerability and Risk Assessment

DESCRIPTION

- Studied the potential of creating a microgrid at Town's complex and adjacent Regional Middle School.
- Addressed concerns for power loss and public health issues due to severe weather incidents and maturing electric grid infrastructure.
- Explored options to reduce greenhouse gas emissions associated with fossil fuel for energy by investigating available renewable energy sources to integrate with microgrid to provide alternate source of power.

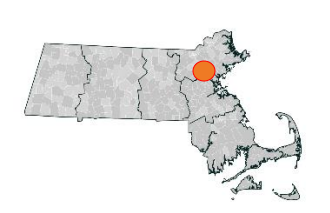




Resilient Stormwater Action and Implementation Plan

MVP
Municipal Vulnerability Preparedness

City of Waltham FY20/FY21



Learn More:

https://www.city.waltham.ma.us/engineering/pages/waltham-resilient-stormwater-action-implementation-plan

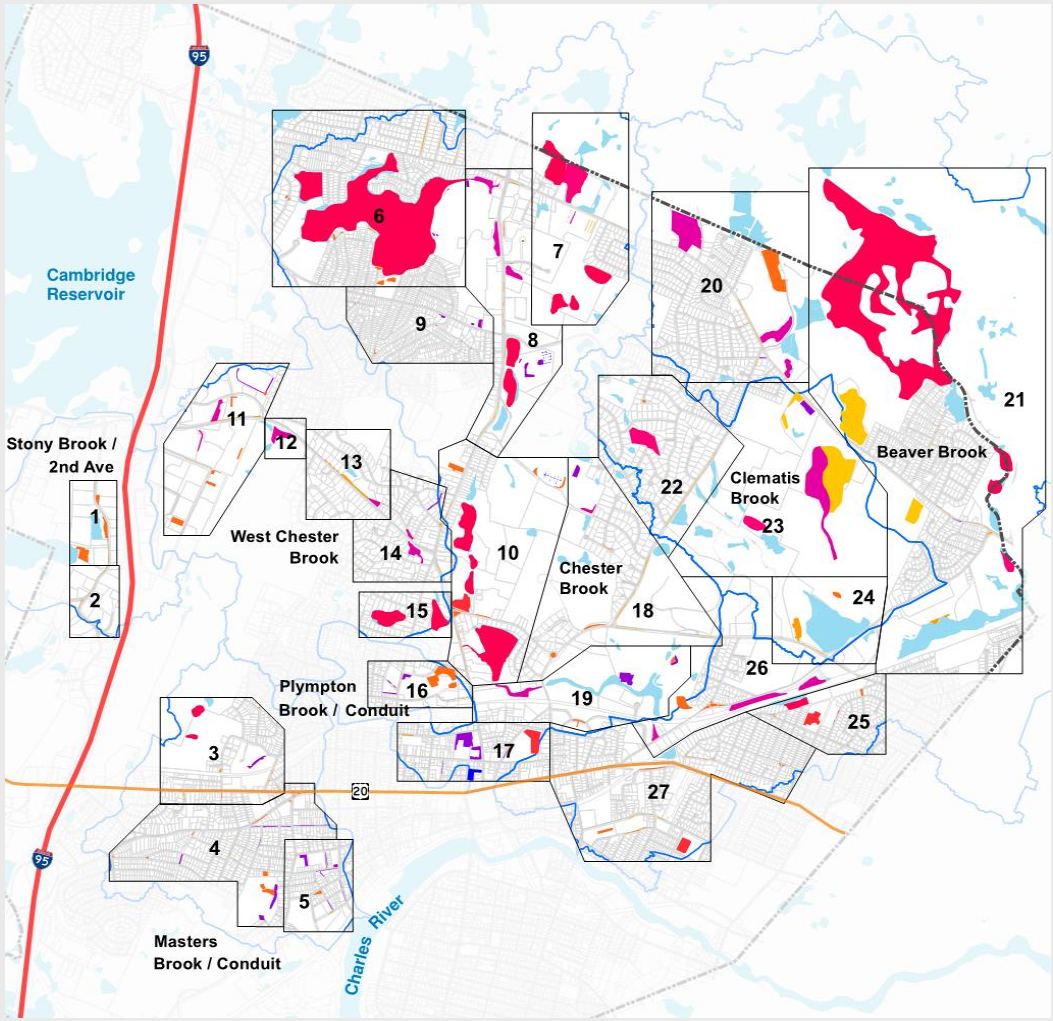
AWARD $217,370

PROJECT TYPE Planning, Assessment, Capacity Building, and Regulatory Updates

CORE PRINCIPLES DEMONSTRATED Utilizing Climate Change Data for a Proactive Solution:, Employing Nature-Based Solutions; Achieving Broad and Multiple Community Benefits

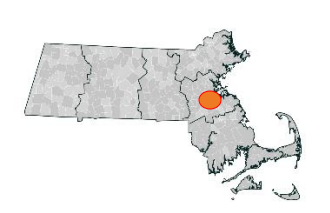
DESCRIPTION

- Identified opportunities for nature-based stormwater controls, flood mitigation projects, and grey infrastructure upgrades at the sub-basin level
- Developed a 10-year stormwater capital improvement plan to build resilience throughout the city



Weston Ahead Climate Action & Resilience Plan

Weston FY20 & FY21

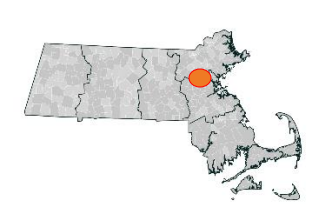


Weston Ahead Webpage

AWARD	$100,000
PROJECT TYPE	Planning, Assessments, Capacity-Building, and Regulatory Updates
CORE PRINCIPLES DEMONSTRATED	Furthering a community identified priority action to address climate change impacts; Conducting robust community engagement; Committing to monitoring project success and maintaining the project into the future
DESCRIPTION	• Conducted a planning process to bring the community on board by engaging, educating and empowering folks to take climate action. • Included a baseline assessment & goal setting, action identification, action prioritization, implementation steps development, final plan development, and community engagement.

Shaker Glen Extension Restoration

City of Woburn FY20/FY21



Website update forthcoming - https://www.woburnma.gov/government/engineering/municipal-vulnerability-preparedness-grant-program/

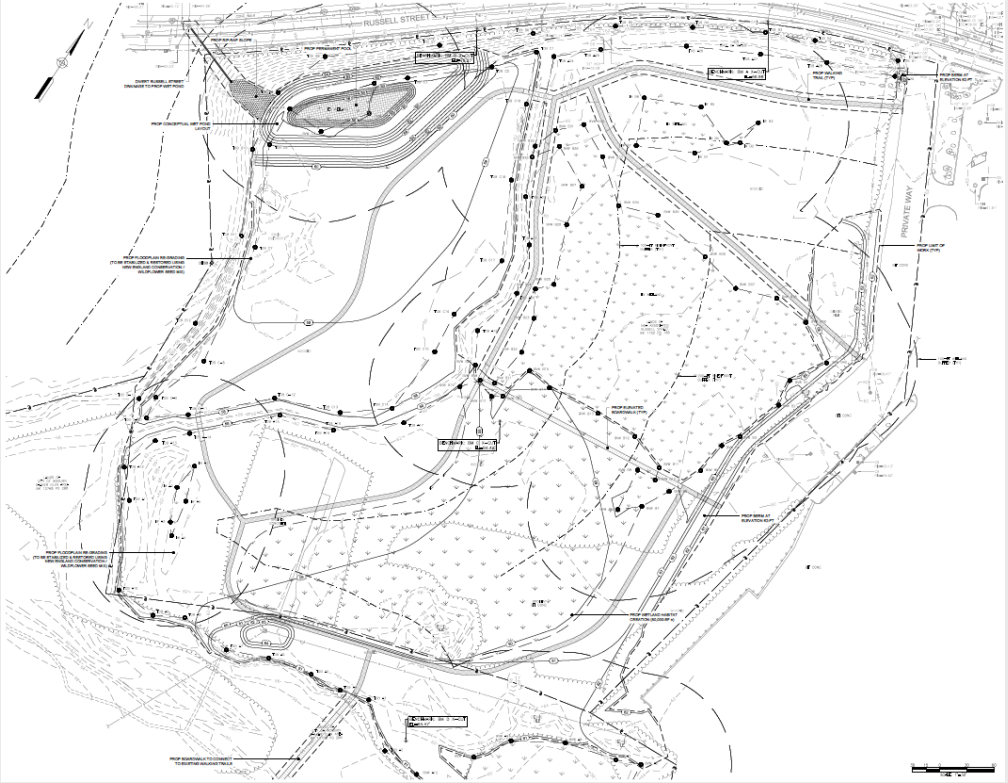
AWARD $145,445

PROJECT TYPE Design

CORE PRINCIPLES DEMONSTRATED Employing Nature-Based Solutions; Achieving broad and multiple community benefits

DESCRIPTION

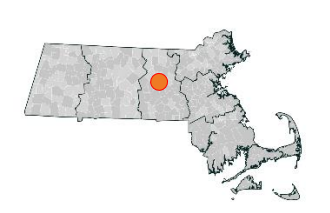
- Developed a preliminary design for the restoration and conservation of the Shaker Glen Extension area that will provide stormwater storage, improve habitat, and increase recreational and educational opportunities



Worcester Senior Center: Urban Rain Gardens At Work

MVP
Municipal Vulnerability Preparedness

Worcester FY20-21



Learn More:

- www. WorcesterEnergy.org

AWARD $378,356

PROJECT TYPE
Redesigns and Retrofits
Nature-Based Flood Protection, Drought Mitigation, Water Quality, and Water Infiltration Techniques
Nature-Based, Infrastructure, & Tech. Solutions to Reduce Vulnerability to Extreme Heat & Poor Air Quality

CORE PRINCIPLES DEMONSTRATED
Employing Nature-Based Solutions
Pursuing innovative, transferable approaches

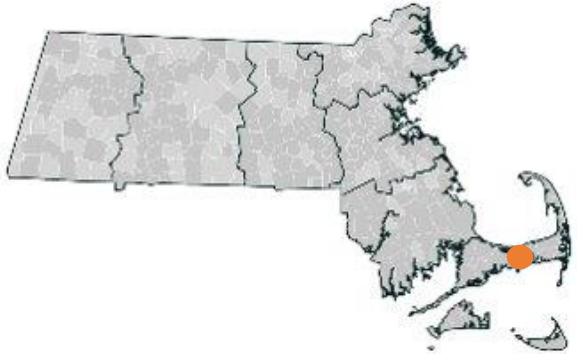
DESCRIPTION To address flooding and extreme heat hazards in a dense largely impervious area of the city, Worcester incorporated nature-based solutions during a parking lot redesign of the Worcester Senior Center. Because the site was nearly 100% impervious with no stormwater management system, a hybrid approach was utilized – with a rain garden and bioswales installed to treat most of the light and moderate rain runoff, and an underground stormwater treatment system treating runoff from more intense rain events.

FY20 Action Grant Projects

Planning and Community Education

Yarmouth Clean Energy Resiliency for Regional Septic Processing & Transfer Station

Yarmouth



Project Priorities:

- Clean energy resiliency
- Greenhouse gas reduction: solar and energy storage
- Operational cost savings

MVP Grant: $150,000
Match Amount: $50,000
Total Project Cost: $200,000

Septage Treatment Campus

Future town emergency operations building