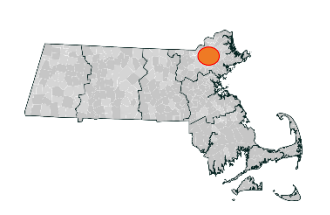
FY23 Completed Action Grant Summaries

Municipal Vulnerability Preparedness Program
MA Executive Office of Energy and Environmental Affairs

Shawsheen River Nature-Based Flood Resilience

MVP
Municipal Vulnerability Preparedness

Andover FY23-24



Learn More:
[Project website]

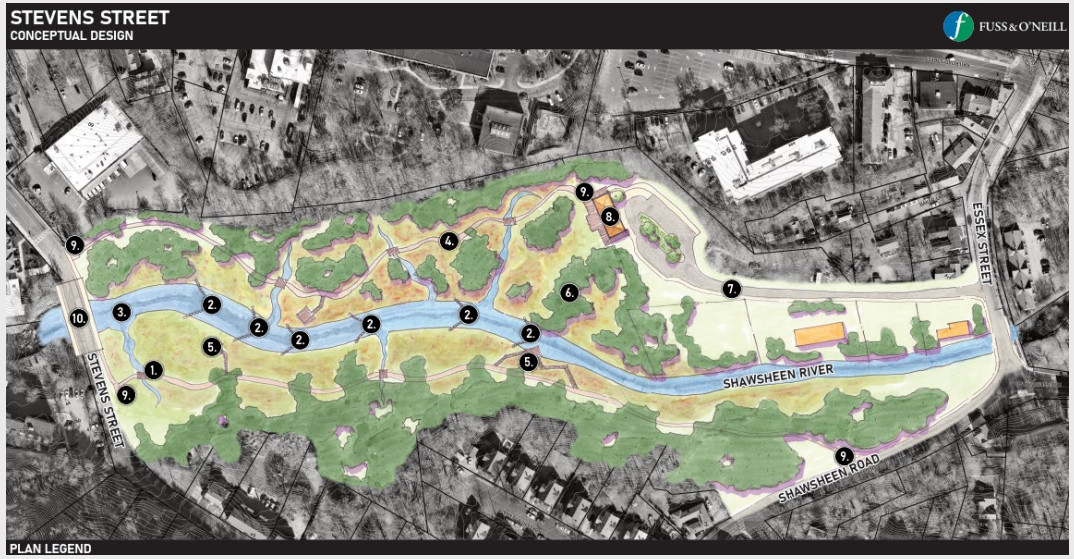
AWARD	$271,705	MATCH	$ 91,350
PROJECT TYPE	Type 1 (Assessment)		

CORE PRINCIPLES DEMONSTRATED

Employing nature-based solutions; Achieving broad and multiple community benefits

DESCRIPTION

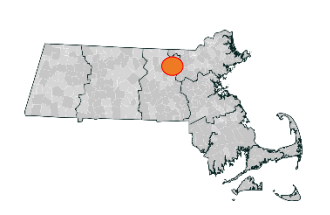
The second phase of the Climate Ready Shawsheen project focuses on quantifying the flood mitigation benefits gained from the implementation of flood storage and/or restoration projects on several of the top-prioritized parcels by using hydrologic and hydraulic (H&H) modeling to evaluate the existing and projected future flooding conditions.



Regional Pocket Forest Pilot Project

MVP
Municipal Vulnerability Preparedness

Ayer & Devens FY23



Learn More:

[Peoject Website]

AWARD	$282,624	MATCH	$92,045

PROJECT TYPE Planning, Assessments, Capacity Building

CORE PRINCIPLES DEMONSTRATED Building community capacity for climate resilience; Employing Nature-Based Solutions

DESCRIPTION

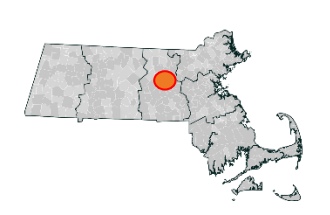
This project engaged the community in the planning and installation of a pilot pocket forest in Ayer. The project team developed educational materials explaining the “why” and “how to” of this nature-based solution.

Approximately 350 indigenous plants were installed at the pilot site by the hands of over one-hundred local/regional volunteers (adults and youth).

Horseshoe Pond Acquisition Project

MVP
Municipal Vulnerability Preparedness

Berlin FY23



Learn More:
[Horseshoe Pond Project Website]

AWARD	$874,268	MATCH	$293,173
PROJECT TYPE	Land Acquisition		
CORE PRINCIPLES DEMONSTRATED	Utilizing Climate Change Data For a Proactive Solution; Employing Nature-Based Solutions		

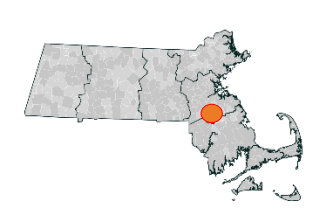
DESCRIPTION

- Over a 100 acres of undeveloped forest was added to the Mount Pisgah Conservation Area
- A kiosk was installed at the trailhead to provide information about conservation effort and climate resilience
- Trail maps were translated into both Portuguese and Spanish to make the area more welcoming to local EJ populations

Trout Brook Flood Resilience

MVP
Municipal Vulnerability Preparedness

Brockton FY23-24



Learn More:

- Brockton Resiliency

AWARD $157,300 MATCH

PROJECT TYPE Type 2 – Design and Permitting

CORE PRINCIPLES DEMONSTRATED Employing Nature-Based Solutions; Increasing Equitable Outcomes for EJ Populations; Achieving Broad and Multiple Community Benefits; Robust Community Engagement

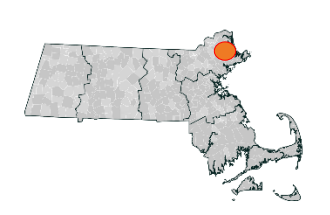
DESCRIPTION

- The project seeks to reduce flooding impacts to the EJ neighborhoods along Trout Brook by creating additional floodplain storage and providing protections against overtopping of Court Street.
- The project simultaneously provides walkable green space to increase connectivity with neighborhood parks.
- Developed 30% designs and a 3D graphic site model for proposed improvements.

Increasing Watershed Scale Resiliency in Boxford Through Culvert Upgrades in the Howlett Brook Watershed

MVP
Municipal Vulnerability Preparedness

Boxford FY23-24



Learn More:

- PROJECT WEBPAGE
- PROJECT VIDEO

AWARD	$120,900	MATCH	$82,987
PROJECT TYPE	Type 2 – Design and Permitting		
CORE PRINCIPLES DEMONSTRATED	Utilizing climate change data for a proactive solution and employing Nature-Based Solutions (NBS)		

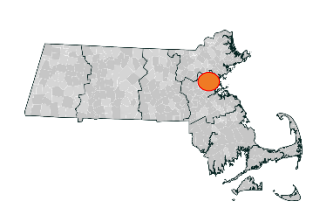
DESCRIPTION

- Building off of a prior MVP planning effort, this project resulted in the final designs and permits for three (3) culvert upgrade projects on the same stream system in Boxford.
- These culvert upgrades will provide substantial improvement in climate resiliency for flood-prone infrastructure in Boxford while also resulting in environmental co-benefits like habitat improvement

Cambridge Community Corps (C3) Climate Readiness Project

MVP
Municipal Vulnerability Preparedness

Cambridge FY23-24



Learn More:

[C3 Climate Readiness Project]

[Cambridge Community Corps]

AWARD $150,000 **MATCH** $46,200

PROJECT TYPE Type 1: Planning, Assessments, Capacity Building, and Regulatory Updates

CORE PRINCIPLES DEMONSTRATED Building community capacity for climate resilience; Conducting robust community engagement and supporting strong partnerships with EJ and other priority populations

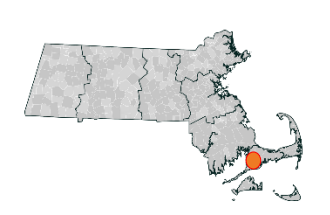
DESCRIPTION

- **Build the capacity of the Cambridge Community Corps (C3)** to engage in and lead climate change preparedness efforts.
- **Reduce climate health risks among residents of Cambridge's Environmental Justice (EJ) neighborhoods** and other climate vulnerable populations through C3 outreach, mutual aid, and advocacy.
- **Catalyze knowledge sharing and thought partnership** among participants and leaders of similar community health outreach programs by sharing lessons and practices from the C3 Program.

Pleasant Bay Climate Adaptation Action Plan

MVP
Municipal Vulnerability Preparedness

Chatham/Pleasant Bay Alliance FY23



Learn More:

- Project Website

AWARD $287,790 **MATCH** $96,235

PROJECT TYPE Planning and Capacity Building

CORE PRINCIPLES DEMONSTRATED Building community capacity for climate resilience; Utilizing climate change data for a proactive solution; Robust community engagement and partnerships

DESCRIPTION

Identified/quantified climate threats to barrier beach, salt marsh, eelgrass, public water access and water/wastewater/stormwater infrastructure.

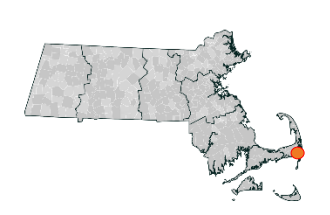
Developed resilience enhancements for intertidal resources, eelgrass, salt marsh, public water access and water/wastewater/stormwater infrastructure.

Engaged stakeholders in prioritizing climate threats and resilience enhancements to develop a *Climate Adaptation Action Plan for Pleasant Bay.*

Cape Cod Low Lying Roads 2

MVP
Municipal Vulnerability Preparedness

Chatham, Falmouth, Harwich, Mashpee, Provincetown, FY 2023-24



Learn More

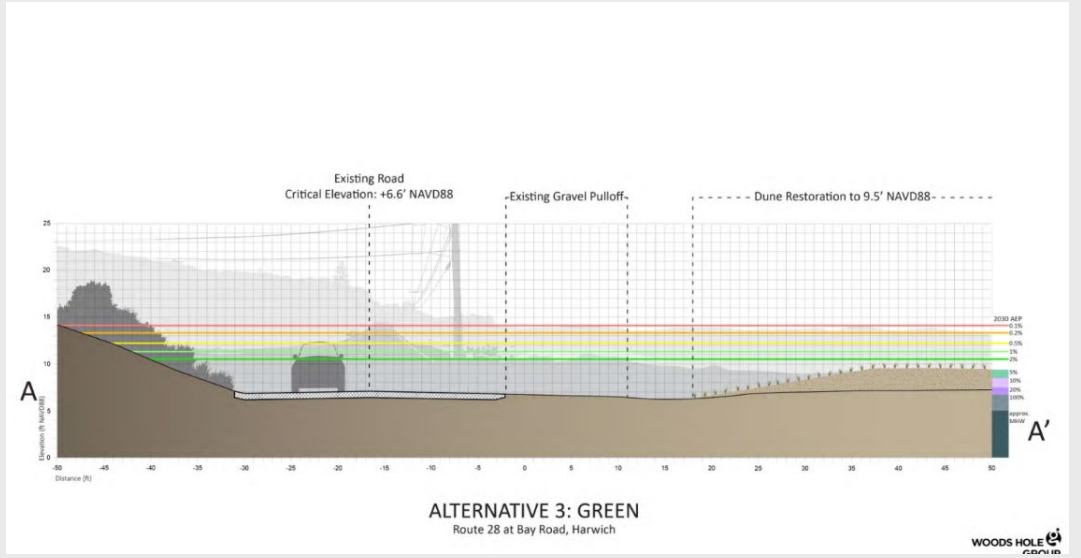
Project Website

AWARD $205,479 **MATCH** $69,005

PROJECT TYPE Feasibility and Analysis

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

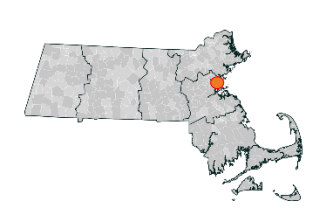
DESCRIPTION Using the Massachusetts Coast Flood Risk Model, the project team identified roads vulnerable to flooding during coastal storm events at future time horizons. The team assessed the criticality of those roads and assigned a risk level to assist in prioritizing roads for adaptation solutions. The team developed conceptual designs, including nature-based solutions, for 2 roads in each town.



Envisioning Resilience in the North Suffolk Region through Community Preparedness

MVP
Municipal Vulnerability Preparedness

Chelsea FY23-24



Learn More:

Project Website

AWARD $ 87,500 **MATCH** $ 29,175

PROJECT TYPE Type 1: Planning, Assessments, Capacity Building, and Regulatory Updates

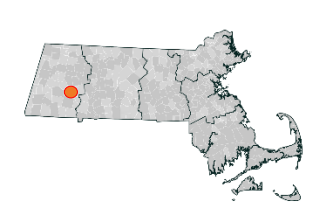
CORE PRINCIPLES DEMONSTRATED Building community capacity for climate resilience and Utilizing regional solutions for regional benefit

DESCRIPTION This project sought to understand how municipalities and community-based organizations across the North Suffolk Region can ensure that emergency planning for climate impacts will reach and meet the needs of all residents. Tasks included municipal and community interviews, creation of a steering committee, and community engagement leading to recommendations for municipal emergency preparedness plans.

Evaluating & Planning for Resilient Rural Dirt Roads

MVP
Municipal Vulnerability Preparedness

Chester, Blandford & Middlefield FY23-FY24



Learn More:

- MVP Dirt Roads Data & Public Comments Viewer

AWARD $317,550 **MATCH** $35,600

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

CORE PRINCIPLES DEMONSTRATED Building community capacity for climate resilience; Achieving broad and multiple community benefits.

DESCRIPTION

•Complete an analysis and priority ranking of dirt road infrastructure that is informed by a suite of key considerations, including existing conditions, vulnerabilities to the risks associated with greater extremes for the region, and criticality of route to local populations.

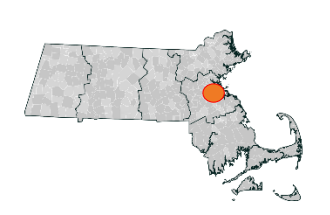
•Build an on-line, interactive mapping tool that Blandford, Chester, and Middlefield officials can use to view dirt road considerations and inform decision making around investments for greater resilience.

•Integrate nature-based solutions through three important project elements, including a library of 5 to 7 typical BMP fixes for dirt roads, recommendations for beaver activity, and in preliminary design for upgrading priority stream crossings (up to two in each town

Neponset River Watershed Regional Adaptation Strategy and Flood Model: Phase 1

MVP Municipal Vulnerability Preparedness

Dedham/Neponset Region FY23



Learn more:

Project Website

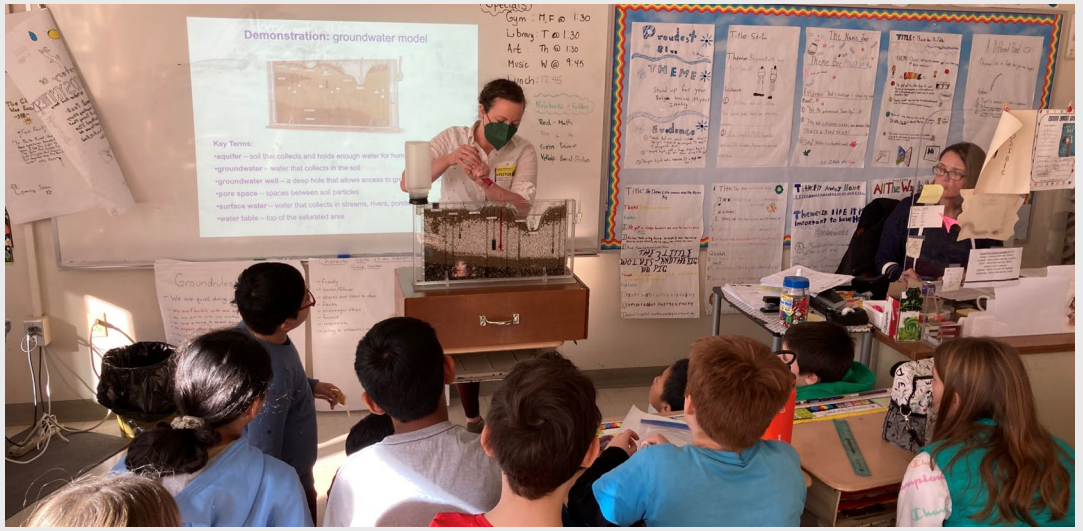
AWARD $389,457 **MATCH** $133,144

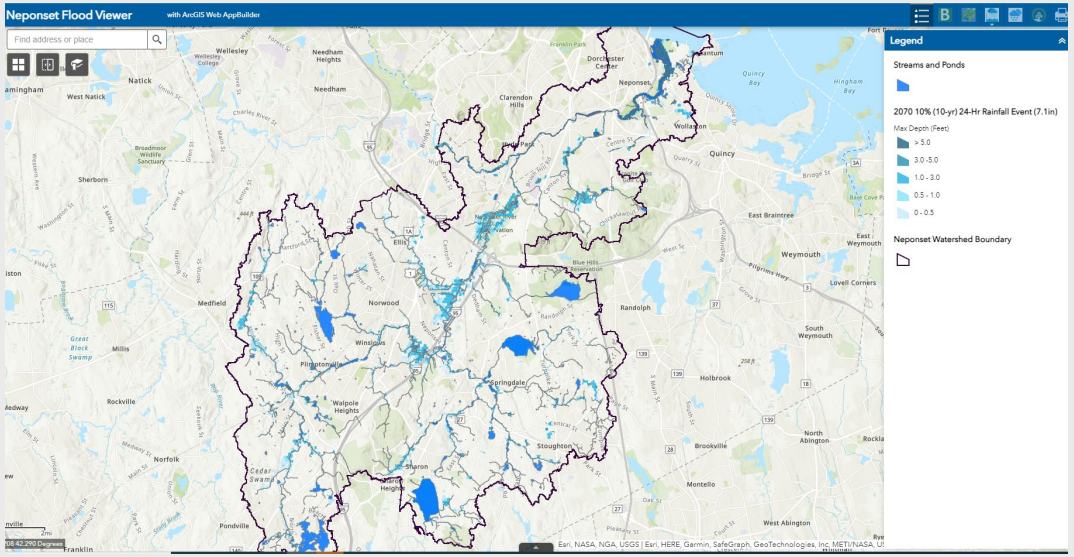
PROJECT TYPE Planning, Assessments, Capacity Building, and Regulatory Updates

CORE PRINCIPLES DEMONSTRATED Furthering a community identified priority action to address climate change impacts, Utilizing regional solutions for regional benefit, and Conducting robust community engagement and supporting strong partnerships with EJ and other priority populations, among others.

DESCRIPTION

- Develop watershed-scale flood model
- Assess efficacy of regional strategies to reduce flood risk
- Create design concepts for neighborhood-level flood mitigation strategies to share with other communities
- Develop framework for watershed-wide climate resilience collaborative
- Robust community engagement, including environmental justice focus group and elementary school curriculum
- Technical assistance for municipal staff around climate-resilient land-use policies

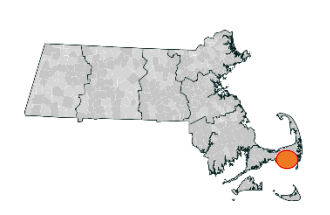




Pound Pond Flood Mitigation & Storm Drainage Improvements

MVP
Municipal Vulnerability Preparedness

Dennis, MA FY23



Learn More:

[Pound Pond Restoration Project]

AWARD $73,3628 **MATCH** $24,542

PROJECT TYPE Design and Permitting

CORE PRINCIPLES DEMONSTRATED Employing Nature Based Solutions; Committing to monitoring project success and maintaining the project into the future

DESCRIPTION

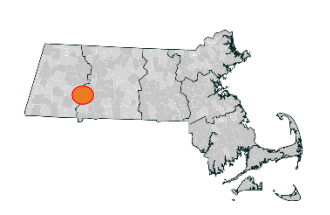
The project goal is to restore Pound Pond at Seaview Park in Dennis to provide water quality, habitat and flood plain improvements. The tasks included:

- Completing hydrologic and hydrologic modeling using climate change data, topographic and wetlands survey
- Ongoing public engagement with EJ community and local stakeholders
- Preparing permit level design and opinion of preliminary construction costs (OPCC)
- Preparing and submitting relevant local, state and federal permits
- Completing a Wetland Monitoring and Site Maintenance Plan

Emerald Place Resiliency

MVP
Municipal Vulnerability Preparedness

Easthampton FY23



Learn More:

Project Website

AWARD $117,800

PROJECT TYPE Design and Permitting

CORE PRINCIPLES DEMONSTRATED Employing Nature-Based Solutions; Increasing Equitable Outcomes for EJ Populations; Achieving Broad and Multiple Community Benefits; Robust Community Engagement

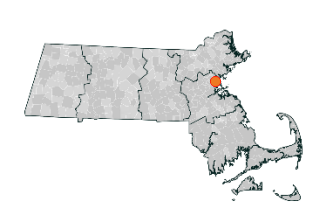
DESCRIPTION

- Emerald Place is at the top of slope along Lower Mill Pond and suffers from erosion and slope failure driven by drainage from increasingly heavy storm events in a dense, highly impervious neighborhood.
- The project advanced field investigations and conceptual design for green infrastructure and nature-based slope stabilization along Emerald Place.
- Community outreach included creative on-site engagement, a Homeowner's DIY stormwater workshop, and hands-on design activities with Easthampton's 4th graders.

Island End River (IER) Flood Resilience Project

MVP
Municipal Vulnerability Preparedness

Everett FY23-FY24



Learn More:

- Island End River Flood Resilience Project Community | Home
- Pressley Celebrates $750K Delivered for Chelsea & Everett Island End River Project - Ayanna Pressley (house.gov)
- Coastal resilience efforts cross city lines at Island End River in Chelsea and Everett - The Bay State Banner

AWARD $2,998,600 **MATCH** $1,003,061

PROJECT TYPE Design and Permitting

CORE PRINCIPLES DEMONSTRATED Utilizing Climate Change Data for a Proactive Solution, Utilizing Regional Solutions Toward Regional Benefit

DESCRIPTION

Progressed infrastructure design to inform preconstruction cost estimate and develop project schedule

Integrated Nature-based Approaches along the Island End River and Park to address coastal erosion and design for sea level rise

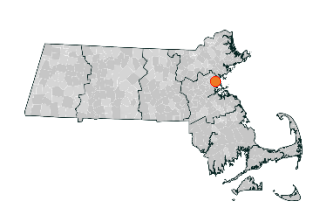
Facilitated discussions with industrial stakeholders to develop project design and long-term O&M

Worked closely with environmental permitting agencies to refine design and enhance project benefits to coastal habitat

Beat the Heat

MVP
Municipal Vulnerability Preparedness

Everett FY23-24



AWARD $ 339,915 **MATCH** $ 54,300

PROJECT TYPE Type 2: Design and Permitting

CORE PRINCIPLES DEMONSTRATED Increasing equitable outcomes for Environmental Justice (EJ) and other priority populations and addressing the root causes of social vulnerability

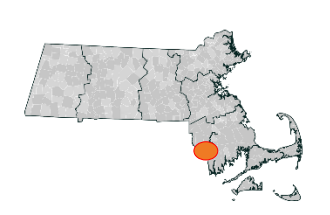
DESCRIPTION

- Engage residents through surveys and other means to ascertain their known hotspots and desired types cooling solutions.
- Determine specific locations in Everett and Chelsea to emplace the cooling solutions.
- Purchase and install of resident-desired misters, and water fountains.

South Watuppa Pond Green Infrastructure – Blue Water Restoration Project

MVP Municipal Vulnerability Preparedness

Fall River FY23



Learn more:

- Watuppa Reserve Project Website
- Project Facebook Page

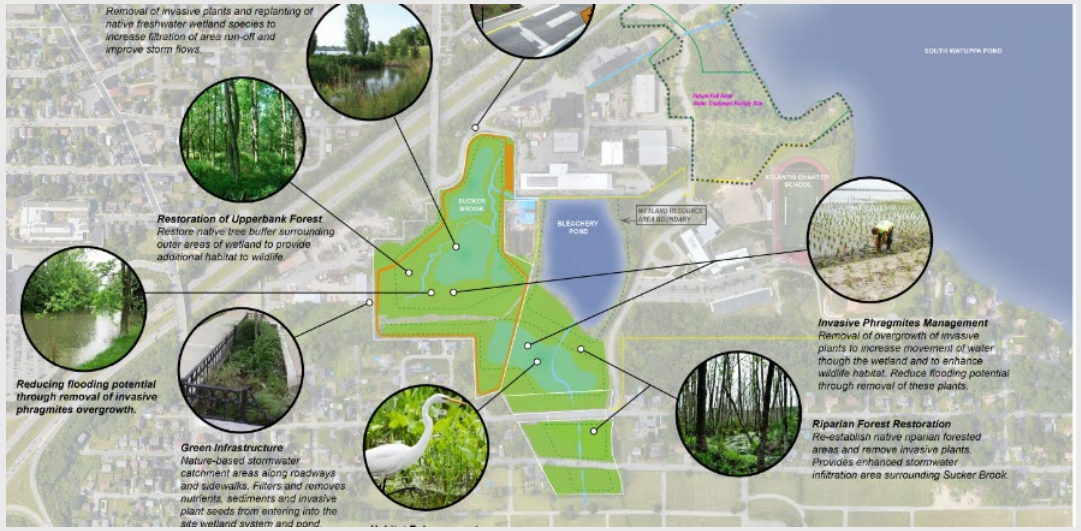
AWARD $415,127 **MATCH** $138,075.50

PROJECT TYPE Planning and Design

CORE PRINCIPLES DEMONSTRATED Utilizing Regional Solutions Toward Regional Benefit; Conducting Robust Community Engagement; And Achieving Broad And Multiple Community Benefits

DESCRIPTION

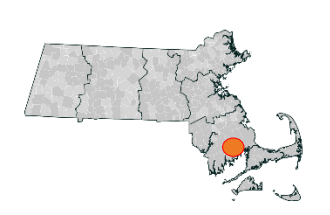
- Three municipalities (Fall River, Tiverton, and Westport) partnered to design three stormwater treatment retrofit projects protecting South Watuppa Pond.
- Investigated wetland restoration alternatives for the Sucker Brook Wetland Area, upstream of the Pond, to reduce flooding and improve water quality. Collaborated with neighboring Atlantis Charter School on public access and visioning.
- Partnered with Groundwork Southcoast to conduct public outreach and engagement.



Fairhaven Climate Change Vulnerability Assessment

MVP
Municipal Vulnerability Preparedness

Fairhaven FY23



Learn More:

- Fairhaven Conservation and Sustainability
- Fairhaven MVP Project Homepage

AWARD $40,000 **MATCH** $13,500

PROJECT TYPE Planning/Assessment

CORE PRINCIPLES DEMONSTRATED Furthering a community identified priority action to address climate change impacts

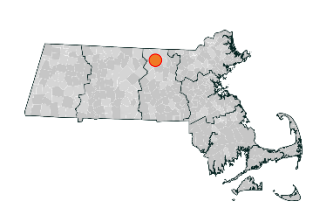
DESCRIPTION

- Provide data on likely future flooding scenarios
- Identify potential flooding impacts to public infrastructure
- Identify potential flooding impacts to natural resources
- Prioritize assets by level of risk
- Produce high-quality maps/graphics
- Public outreach and education

Generating Resiliency in Downtown Fitchburg with Nature-Based Solutions

MVP Municipal Vulnerability Preparedness

Fitchburg FY23



Learn More:

- Fitchburg Downtown Nature-Based Solution Designs: ArcGIS
- Project StoryMap

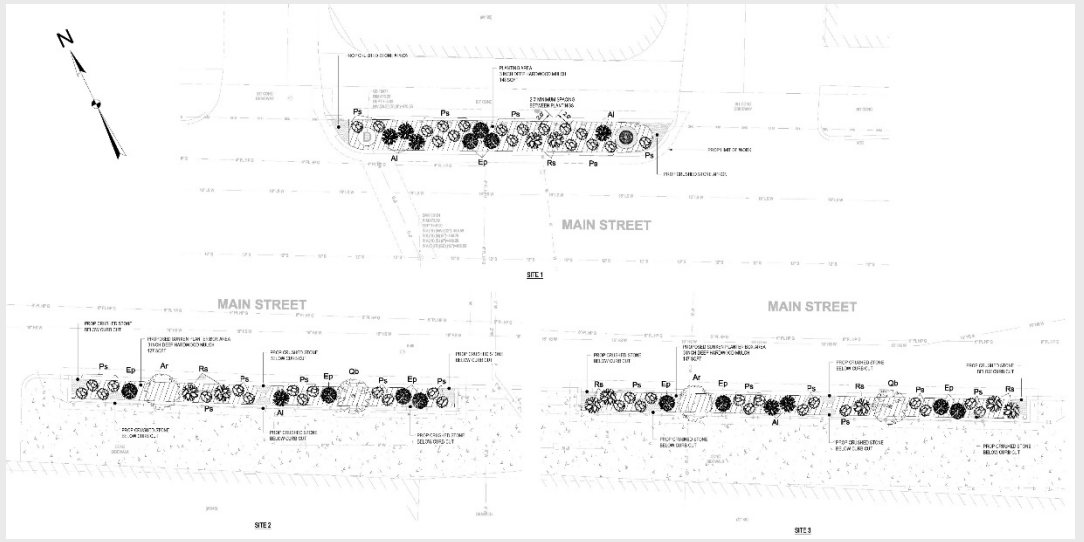
AWARD $109,000 **MATCH** $36,500

PROJECT TYPE Design and Permitting

CORE PRINCIPLES DEMONSTRATED Employing Nature Based Solutions

Achieving Broad and Multiple Community Benefits

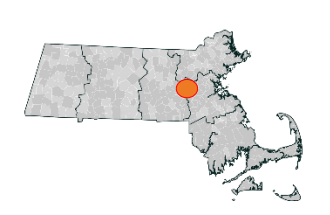
DESCRIPTION The project team took advantage of ongoing combined sewer separation design and construction to identify, design and implement nature-based solutions within downtown Fitchburg. The opportunities were modeled, evaluated, and prioritized based on their ability to reduce surface flooding, urban heat and benefits to community. Implementation of the final designs is in conjunction with the combined sewer separation project timeline and funding.



Walnut Street Flood Mitigation – Permitting & Easements

MVP
Municipal Vulnerability Preparedness

Framingham FY23



Learn more:

[Walnut Street Neighborhood Flood Mitigation]

AWARD $155,000 **MATCH** $62,000

PROJECT TYPE Design & Permitting

CORE PRINCIPLES DEMONSTRATED Furthering a community identified priority action to address climate change impacts; Employing Nature-Based Solutions (NBS); Conducting robust community engagement; Achieving broad and multiple community benefits.

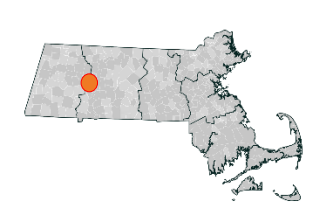
DESCRIPTION

- Restoring and creating flood storage within existing wetlands
- Installing an elevated boardwalk to restore habitat and stream connectivity
- Stream restoration to reestablish flow patterns and restore flood storage

Hatfield 2040 Comprehensive Plan: A Vision to Protect, Prepare, and Prosper

MVP
Municipal Vulnerability Preparedness

Hatfield FY23



Learn more:

Project Website

AWARD $283,900 **MATCH** $94,625

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

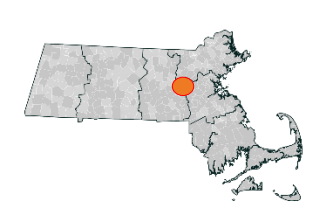
CORE PRINCIPLES DEMONSTRATED Achieving broad and multiple community benefits; Conducting robust community engagement and supporting strong partnerships with EJ and other priority populations

DESCRIPTION Located along the Connecticut River, Hatfield faces increasing risk for flooding to local farms, and its village center with critical facilities and homes in harm's way. This project involved a process in defining, reckoning with, and planning for that risk while also advancing the great strengths within a small rural community into the future, along the following themes: A thriving local economy; A capable and resilient local government; Affordable homes and vibrant neighborhoods; Our natural resources; Together as community – welcoming and supportive for all; and Health and wellness. The project also involved review of municipal code and development of regulatory recommendations to support Hatfield 2040 planning objectives.

SuAsCo Natural Climate Solutions

MVP
Municipal Vulnerability Preparedness

Hudson, Framingham, and Natick FY23/24



[Natural Climate Solutions Project]
[Hudson Climate Resilience Self-Guided Tour]
[Natick Climate Resilience Self-Guided Tour]
[Framingham Climate Resilience Self-Guided Tour]

AWARD $314,393 **MATCH** $104,798

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

CORE PRINCIPLES DEMONSTRATED Building community capacity for climate resilience and Employing Nature-Based Solutions (NBS)

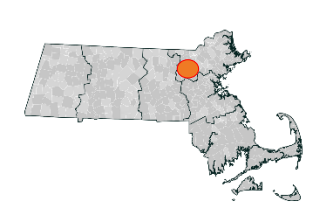
DESCRIPTION

- Engaged Community in identifying locations that could benefit from NBS
- Visited sites and discussed NBS for each
- Delivered materials for design of NBS and for community education

Lincoln Comprehensive Climate Action Plan (L-CAP)

MVP
Municipal Vulnerability Preparedness

Lincoln FY23



Learn More:

- Document Translations
- Project Site
- Dashboard

AWARD $100,000 **MATCH** $47,667.00

PROJECT TYPE Planning, Assessment, Capacity Building & Regulatory Updates

CORE PRINCIPLES DEMONSTRATED

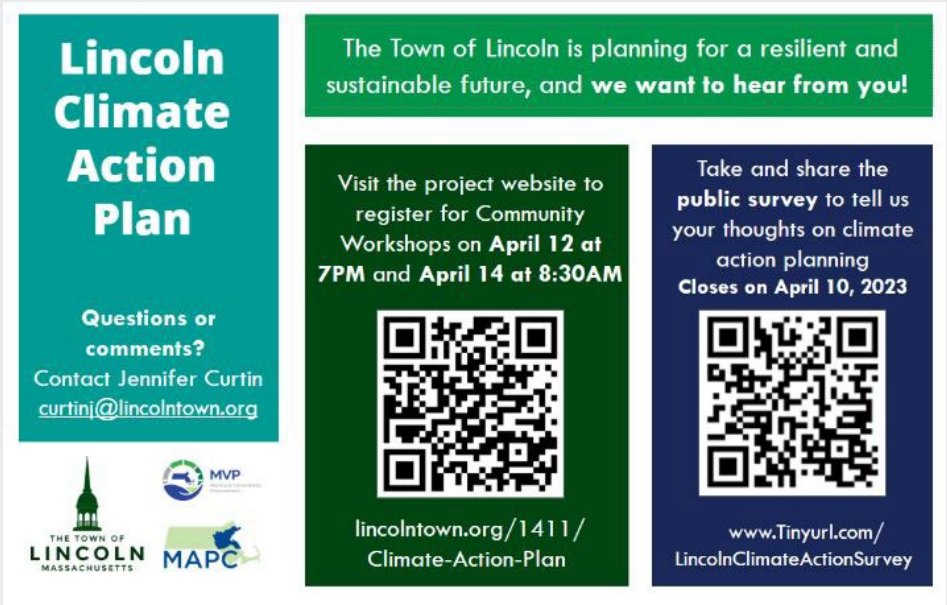
Conducting robust community engagement and supporting strong partnerships with EJ and other priority populations

Employing Nature-Based Solutions (NBS)

DESCRIPTION

Lincoln's climate goals guide the development and implementation of both short and long-term climate mitigation and resilience efforts in Lincoln.

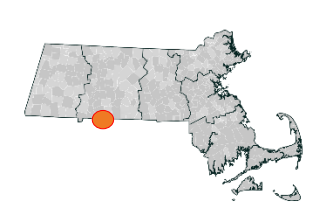
- Transition to clean energy technologies to support the Town of Lincoln's path towards carbon neutrality.
- Prioritize accessibility, walkability, and connectivity to the Town's commercial centers and community spaces, while ensuring that these interconnected multimodal transportation systems are also affordable, reliable, and climate resilient.
- Protect Lincoln's agricultural, historic, and environmental resources from climate change impacts.
- Make sure Lincoln residents, especially those who are underserved and underrepresented, are prepared to address major climate hazards related to flooding, drought, severe storms, extreme heat and more.
- Increase town-wide diversion rate through programs and policies to prevent, reduce, reuse, compost, and recycle waste.
- Engage and support local business owners and residents in making their buildings and homes more sustainable and resilient, in an equitable, affordable, and accessible way.
- Align local efforts with the State's climate goals and programs. Connect and share progress of Lincoln's climate actions with others in the region, and advocate for climate solutions at the regional and state level.



Toward the New Normal: Envisioning an Inclusive & Resilient Longmeadow

MVP Municipal Vulnerability Preparedness

Longmeadow FY23-24



Learn More

- Project Website

AWARD $235,555 **MATCH** $76,238.15

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

CORE PRINCIPLES DEMONSTRATED Furthering a community identified priority action to address climate change impacts; Utilizing climate change data for a proactive solution; Employing Nature-Based Solutions (NBS); Increasing equitable outcomes for and supporting strong partnerships with Environmental Justice (EJ) Populations and Climate Vulnerable Populations; Conducting robust community engagement; Pursuing innovative, transferable approaches

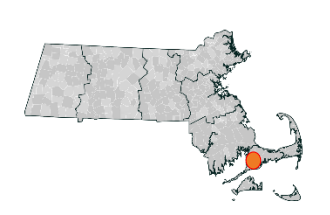
DESCRIPTION

- Partnered with organizations based in the arts and environmental education to conduct unique engagement programming and attract a broad spectrum of participants
- Employed the community liaison model to ensure systematic participation of youth and senior representatives to the Steering Committee
- Developed a Long-Range Plan that incorporated climate science and equity lenses throughout each topic to ensure resilience and inclusivity where intrinsic to the ultimate implementation plan

MV Fostering Ecosystem Resilience

MVP
Municipal Vulnerability Preparedness

Martha's Vineyard Commission FY23-24



Learn More:

- www.thevineyardway.org
- www.mvcommission.org

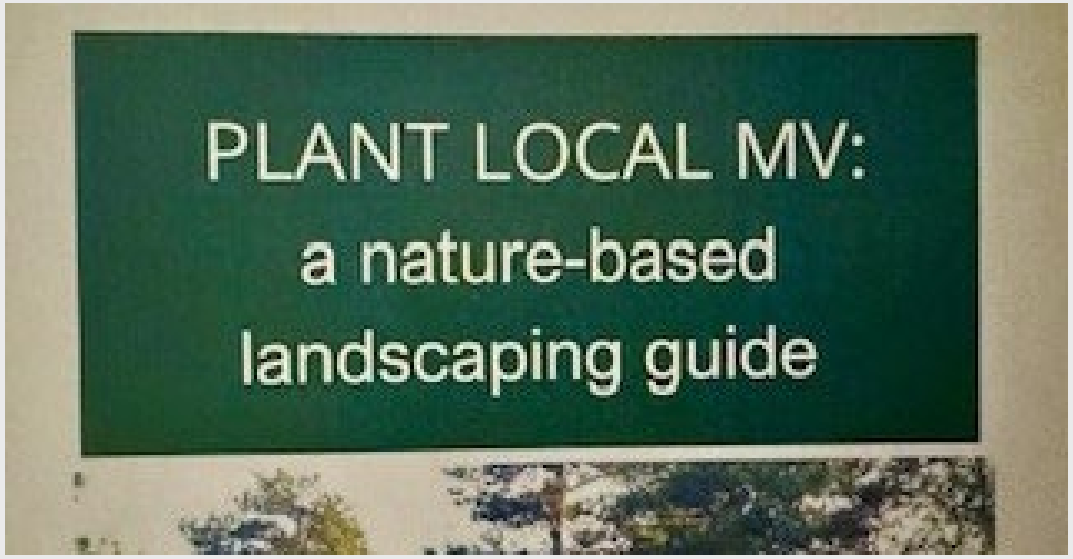
AWARD $163,540 **MATCH** $62,405.90

PROJECT TYPE Planning, Assessment, and Capacity Building

CORE PRINCIPLES DEMONSTRATED Further priority actions, Env. Justice, build community capacity, nature-based solutions, community engagement, regional, transferable

DESCRIPTION

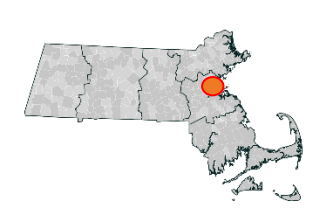
- Updated MV and Nantucket vegetation and wildlife corridor maps
- Identified potential aquaculture sites in three coastal ponds
- Focus groups to ID barriers to native plant use; development of educational materials for homeowners, nurseries, landscapers
- 2024 Climate Action Fair (bilingual)



Interconnected Resiliency Network & Resilient Communications

MVP
Municipal Vulnerability Preparedness

Medford FY 23-24



Learn More:

- Medford Connects Story Map
- Medford Connects Project Resume

AWARD $ 416,738 **MATCH** $ 139,941

PROJECT TYPE Planning, Assessments, Capacity Building, & Regulatory Updates

CORE PRINCIPLES DEMONSTRATED Increasing equitable outcomes for EJ populations and climate-sensitive populations by addressing the root causes of social vulnerability; Building community capacity for climate resilience; Achieving broad and multiple community benefits; Conducting robust community engagement and supporting strong partnerships with EJ populations

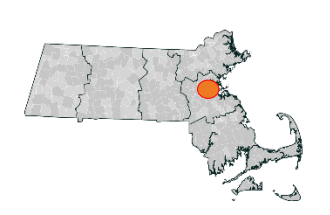
DESCRIPTION

- Team of 9 community liaisons (CLs) support city community engagement through on-the-ground outreach, workshops, and community events. Also sit on the city's Climate Equity Council.
- Network of partners (composed of city staff and CBOs) collaborate on 5 core resilience themes: (1) language access, (2) older adult communication, (3) social-emotional resilience of young children and youth, (4) financial stability, (5) food security
- CLs also support community engagement activities of network of partners and speak the 4 priority languages (Arabic, Brazilian Portuguese, Haitian Creole, Spanish)
- CLs have hosted 11 community events celebrating the diverse cultures and identities in Medford

Metro Mayors Cool Roofs Project

MVP
Municipal Vulnerability Preparedness

Metropolitan Area Planning Council FY23/24



Learn more:

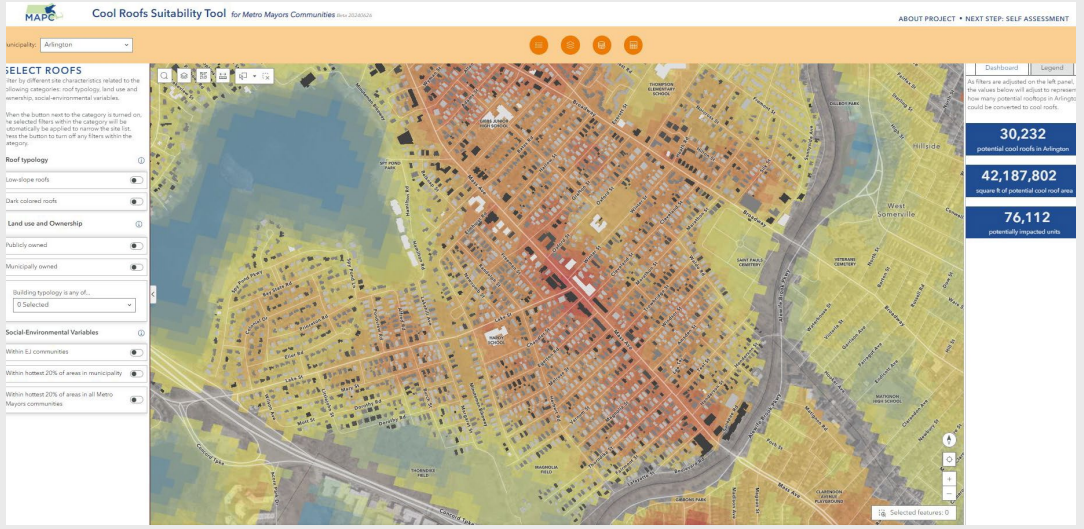
- Project Website

AWARD $88,500 **MATCH** $30,000

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

CORE PRINCIPLES DEMONSTRATED Utilizing climate change data for a proactive solution; utilizing regional solutions for regional benefit.

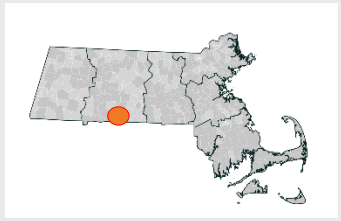
DESCRIPTION MAPC created a suite of tools and resources to support municipalities and other property owners in installing cool roofs. This includes an educational toolkit, guidance for creating an incentive program, and a procurement template for public buildings, among others. MAPC also developed an online mapping tool for all properties in Metro Mayors communities to assess their suitability for a cool roof.

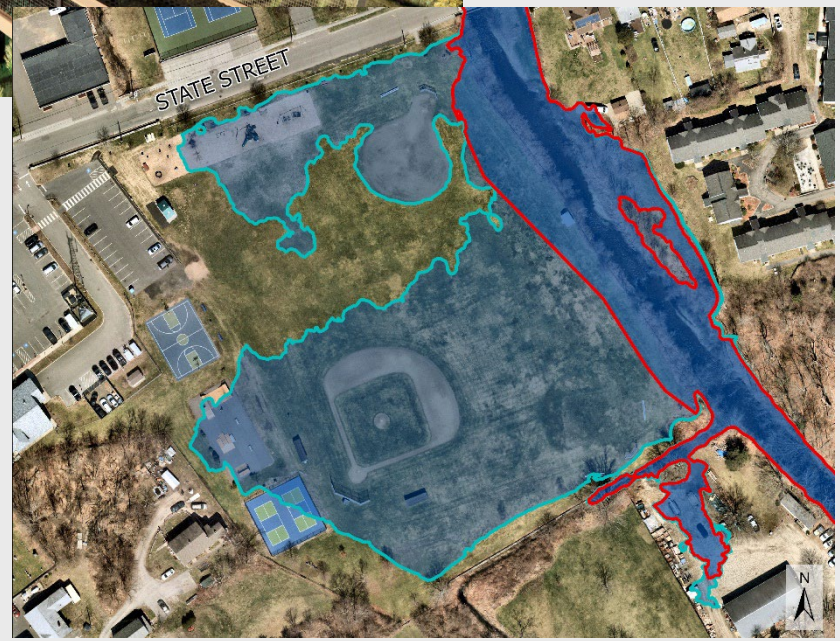


Chicopee Brook Flood Resilience Improvements

MVP
Municipal Vulnerability Preparedness

Monson FY23





AWARD $295,000.00

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

CORE PRINCIPLES DEMONSTRATED Employing nature-based solutions; hydrologic and hydraulic modeling for flood resilience; community outreach and visioning

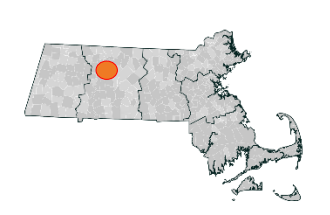
DESCRIPTION

- Completed flood resilience modeling of the Chicopee Brook corridor to identify optimal strategies for protecting against the impacts of flooding through the implementation of nature-based solutions ranging from rightsizing of culverts to increasing flood capacity through floodplain reconnection and green infrastructure.
- Developed illustrative conceptual plans for key flood resilience projects for priority sites along Chicopee Brook, including the Bunyan Road crossing, Cushman Field, Veterans Field, Bliss Street Dam, and Maple Street crossing
- Modeled proposed conditions under future precipitation and flow conditions to: (1) identify future floodplain impacts, (2) quantify the flood reduction benefits that could be achieved through different combinations of resilience projects, and (3) develop a strategy and sequencing for carrying out the implementation of improvements over time.

Incorporating Climate Resiliency into the Montague Comprehensive Plan

MVP
Municipal Vulnerability Preparedness

Montague FY23-24



Learn More:

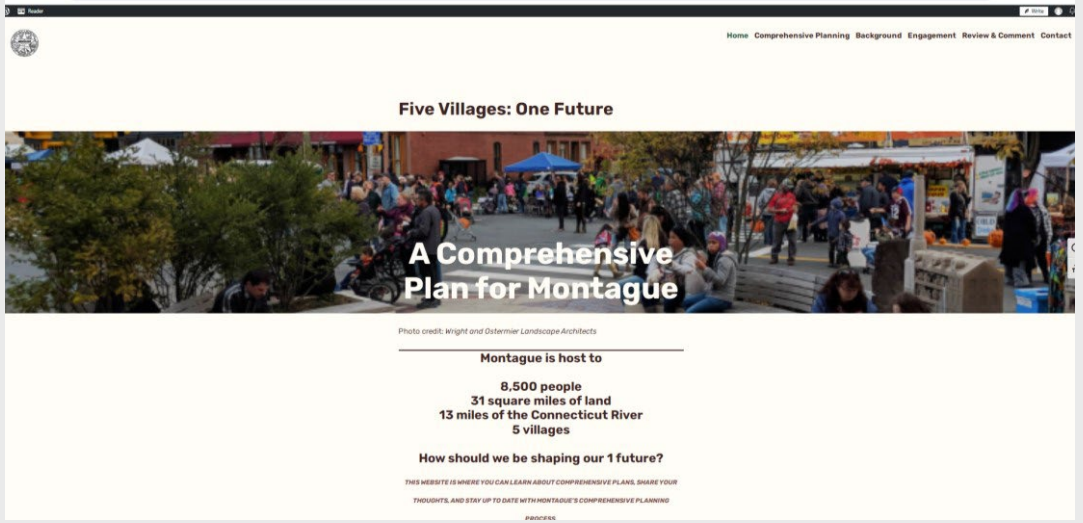
- Project Website

AWARD $80,000 **MATCH** $28,000

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

CORE PRINCIPLES DEMONSTRATED Building community capacity for climate resilience; achieving broad and multiple community benefits.

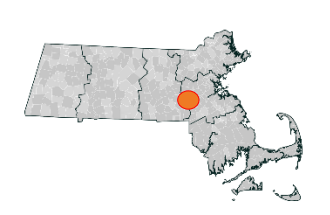
DESCRIPTION This project created a long range Comprehensive Plan for the Town of Montague – Five Villages: One Future. This plan incorporates climate change into all aspects of the plan and recommends implementation strategies to increase the town's resiliency.



Building Resilience Across the Charles River Watershed Phase III

MVP
Municipal Vulnerability Preparedness

Natick FY23-24



Learn More:

[Project Website]

[Charles River Flood Model Results Viewer Map]

AWARD $333,070 **MATCH** $111,000

PROJECT TYPE Type 1: Planning, Assessments, Capacity Building, and Regulatory Updates

CORE PRINCIPLES DEMONSTRATED

Utilizing climate change data for a proactive solution

Employing Nature-Based Solutions (NBS)

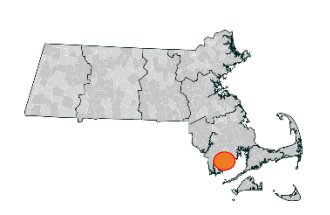
DESCRIPTION

The goal of the Building Resilience across the Charles River Watershed initiative is to build climate resilience across the watershed by identifying and implementing nature-based solutions that effectively reduce the impacts of precipitation-based flooding.

Kempton Street Corridor Green Infrastructure

MVP
Municipal Vulnerability Preparedness

New Bedford FY23



Learn More:

- NB Resilient G.I. Tile - contains project resources and will be kept up to date
- Public Presentation

AWARD $ 161,800 **MATCH** $ 53,975

PROJECT TYPE Design and Permitting

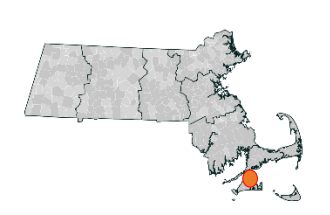
CORE PRINCIPLES DEMONSTRATED Furthering a community identified priority action to address climate change impacts and Employing Nature-Based Solutions (NBS)

DESCRIPTION The Kempton Street G.I. project is located at the beginning of Buttonwood Brook, an impaired resource that runs through New Bedford and Dartmouth before discharge to Apponagansett Bay. New Bedford, Dartmouth, and the Buzzards Bay Coalition are working together to implement a series of natural solutions to stormwater management along the brook.

Conceptual Design of Flood-Resiliency Improvements for Sewer Infrastructure – Town of Oak Bluffs, MA

MVP
Municipal Vulnerability Preparedness

Oak Bluffs FY23



Learn More:

Oak Bluffs Wastewater Division Webpage

AWARD $69,712.50 **MATCH** $23,237.50

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

CORE PRINCIPLES DEMONSTRATED Utilizing climate change data for a proactive solution; Assessing Nature-Based Solutions

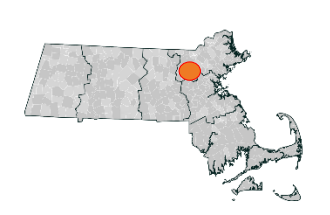
DESCRIPTION

- Established design flood elevations for the Dukes County Avenue Pump Station with consideration for future sea level rise.
- Evaluated alternatives to protect vulnerable sewer infrastructure from design floods and developed conceptual drawings for recommended alternatives.
- Community engagement included public informational meetings

Maillet, Sommes & Morgan Constructed Wetland

MVP
Municipal Vulnerability Preparedness

Reading FY23-24



Learn More:

Project Website

AWARD $2,221,172.23 **MATCH** $795,319.34

PROJECT TYPE Construction & on the ground implementation

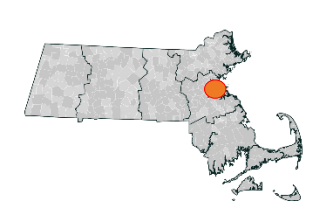
CORE PRINCIPLES DEMONSTRATED Furthering a community identified priority action; Employing Nature-Based-Solutions; Achieving multiple community and regional benefits

DESCRIPTION The project proposes to capture and attenuate stormwater impacting the Aberjona River by creating adjacent offline storage areas. The overall objective is to reduce climate related in-land flooding upstream by increasing stormwater storage capacity through the construction of a series of stormwater wetlands that will also provide co-benefits of: stormwater treatment/water quality; improved ecological and stream stability; invasive species removal; and, additional open space and trail development (including ADA access).

Saugus Pines River Vulnerability and Adaptation Study

MVP
Municipal Vulnerability Preparedness

Revere FY23



Learn More:

Project Website

AWARD $154,742.25 **MATCH** 52,215.00 In-Kind

PROJECT TYPE Action Grant

CORE PRINCIPLES DEMONSTRATED Understand our regional vulnerabilities and risks and develop immediate and long-term risk reduction strategies for current and future conditions using the best available science

DESCRIPTION

In the context of climate change the Saugus Pines River Watershed region including Saugus Revere, Lynn, Malden and Everett are amidst imminent flood impacts.

The flood risk has already been realized with each community experiencing an increased frequency and level of flooding that is breaching and threating neighborhoods and infrastructure.

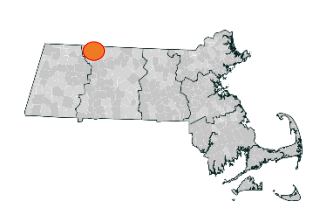
It is confidently predicted that the conditions will only worsen in the short and long term along the watershed. The project documents the data to validate the risks to vulnerable populations and critical infrastructure. The analysis will be vital to prioritize and formulate regional actions and partnerships towards risk reduction.

As demonstrated in the photo taken in 2018 on Route 107 at the Bridge where Lynn borders Saugus, the risk and dangers associated with flooding must be addressed as a region.

Community Driven Forest Climate Adaptation

MVP
Municipal Vulnerability Preparedness

Rowe FY23-24



[Virtual Forest Center of Northwest Massachusetts]

[A Climate Resilient Open Space and Recreation Plan for the town of Rowe]

AWARD $164,450 **MATCH** $18,300

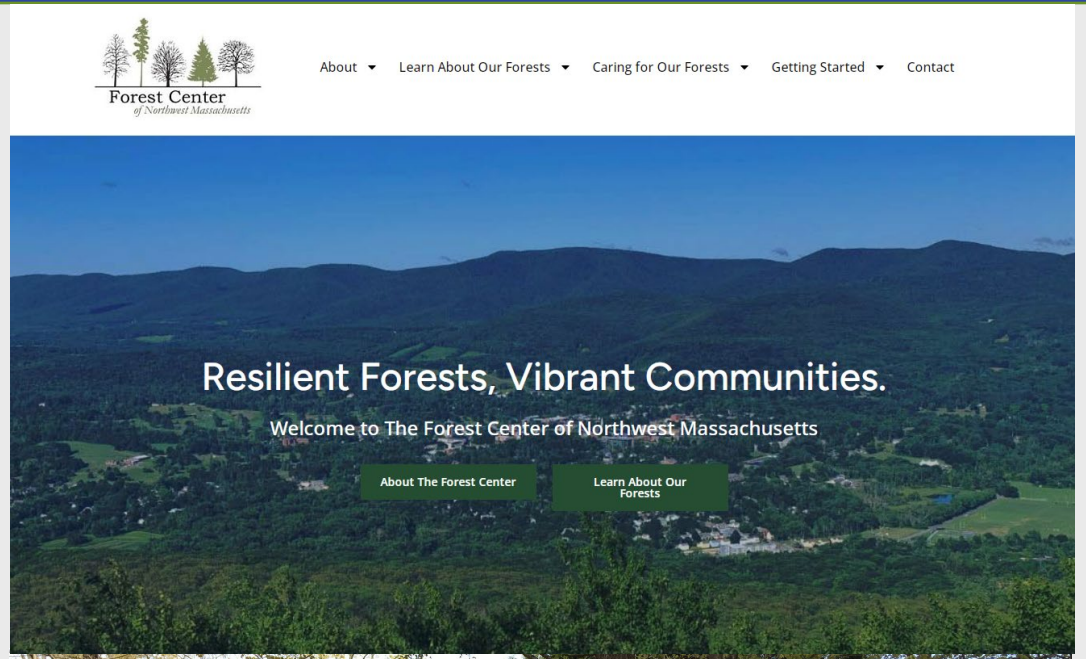
PROJECT TYPE Type 1: Planning, Assessments, Capacity Building and Regulatory Updates

CORE PRINCIPLES DEMONSTRATED Conducting robust community engagement, utilizing regional solutions towards regional benefit, building community capacity for climate resilience, employing Nature-Based Solutions

DESCRIPTION

The goal of this project was to deliver climate-smart outcomes and build resilience through community engagement, open space planning, and forest stewardship climate plan implementation. This was achieved via:

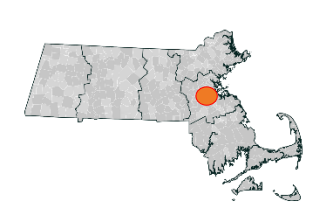
- Engaging Indigenous communities
- Climate-smart Open Space Planning
- Hosting Woods Walks
- Development of the Virtual Forest Center
- Completing forest operational planning
- Conducting baseline monitoring



Sherborn's Climate Activation and Resilience Plan –
Model for the MetroWest Region

MVP
Municipal Vulnerability Preparedness

Sherborn FY23



Learn More:

Project Website

AWARD $38,145.00 **MATCH** $31,522.69

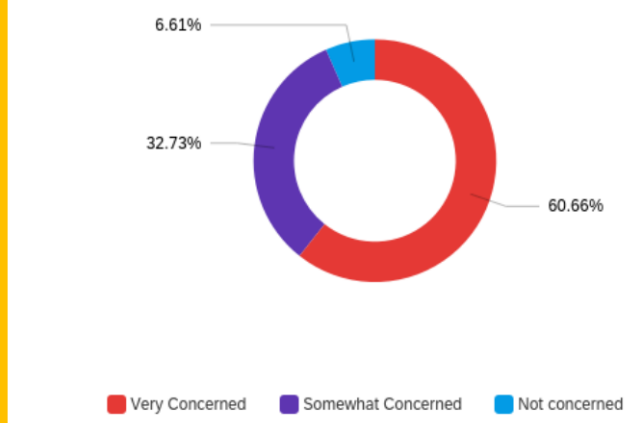
PROJECT TYPE Community Climate Action and Resilience Plan

CORE PRINCIPLES DEMONSTRATED Furthering a community identified priority action to address climate change impacts; Pursuing innovative, transferable approaches

DESCRIPTION Identification of 10-15 priority measures for mitigating emissions and reducing vulnerabilities to climate change.

Innovative engagement program "Intergenerational Climate Conversations" between High Schools students and older residents foster collaborative actions across climate vulnerable groups

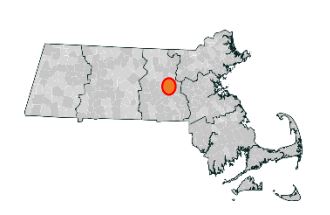
HOW CONCERNED ARE YOU THAT SHERBORN WILL BE AFFECTED BY CLIMATE CHANGE?



Shrewsbury Municipal Climate Action Plan

MVP
Municipal Vulnerability Preparedness

Shrewsbury FY23



Learn more:

[Climate Action and Resiliency Plan | Shrewsbury, MA (shrewsburyma.gov)]

AWARD	$100,000	MATCH	$33,136
PROJECT TYPE	Climate Action Plan Services		
CORE PRINCIPLES DEMONSTRATED	Committing to monitoring project success and maintaining the project into the future; Building community capacity for climate resilience		

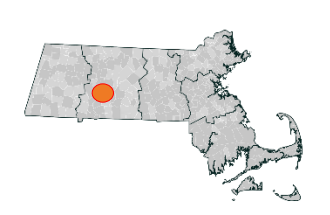
DESCRIPTION

- Inventoried the Town's municipal greenhouse gas emissions.
- Reviewed existing climate vulnerability assessments, data, and reports.
- Facilitated engagement with relevant stakeholders through in person and virtual meetings.
- Identified goals, strategies, actions, metrics, and targets to reduce the Town's environmental impact and increase resilience of municipal operations.

Queensville Dam & Buttery Brook Restoration

MVP
Municipal Vulnerability Preparedness

South Hadley FY23



Learn More:

[Project Website]

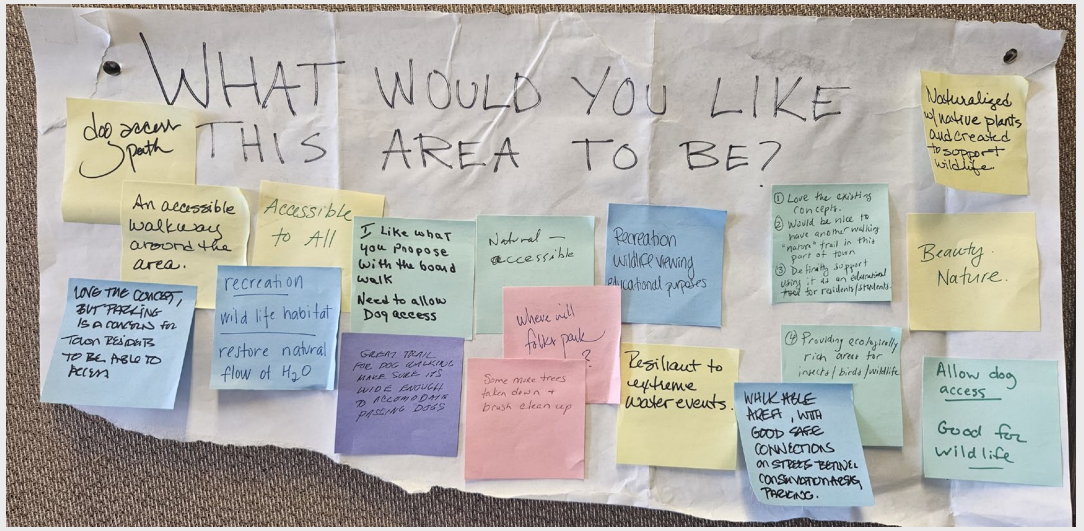
AWARD	$162,000	MATCH	$54,650
PROJECT TYPE	Action Grant Project		

CORE PRINCIPLES DEMONSTRATED

Employing Nature-Based Solutions (NBS); Committing to monitoring project success and maintaining the project into the future:

DESCRIPTION

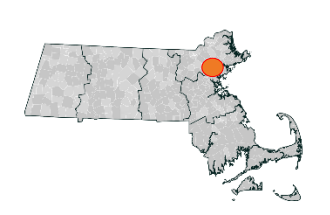
The project will ultimately result in reclassification of the Queensville Dam as non-jurisdictional, based on the removal of the impoundment and reduction of total storage space behind the dam embankment (which cannot be removed since it is coincident with the Route 116 road embankment) to below 15 acre-feet during the 100-year event. This will in turn achieve the Town's goal of reducing the liability of dam maintenance and reduce the associated flooding risks that would result from failure of the dam, which is currently classified as a significant hazard dam.



Stoneham High School Wetlands Restoration

MVP
Municipal Vulnerability Preparedness

Stoneham FY23-24



[Stoneham High School Wetlands Website]

AWARD $108,700 **MATCH** $40,000

PROJECT TYPE Design and Permitting

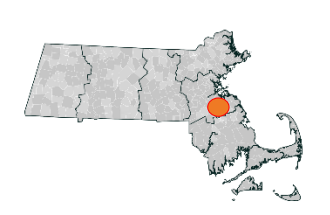
CORE PRINCIPLES DEMONSTRATED Employing Nature-Based Solutions; Utilizing Regional Solutions for Regional Benefit; Achieving Broad and Multiple Community Benefits

DESCRIPTION The primary project goals were to address localized flooding at Franklin Street, improve water quality to downstream waterbodies, and enhance the site biodiversity for climate resilience. The restoration design incorporates removal of historical trash and debris; modifications to site topography to improve hydrologic connectivity to existing wetlands; removal of significant invasive species; and incorporation of native vegetation. Overall site design includes accessible pathways, trailheads and signage within restored open space with potential for future connections to the Middlesex Fells Reservation.

Stoughton Town-wide Drainage Model, Vulnerability Assessment, and Adaptation Strategies to Mitigate Future Flooding

MVP
Municipal Vulnerability Preparedness

Stoughton FY23-24



Learn More:

- Project Website

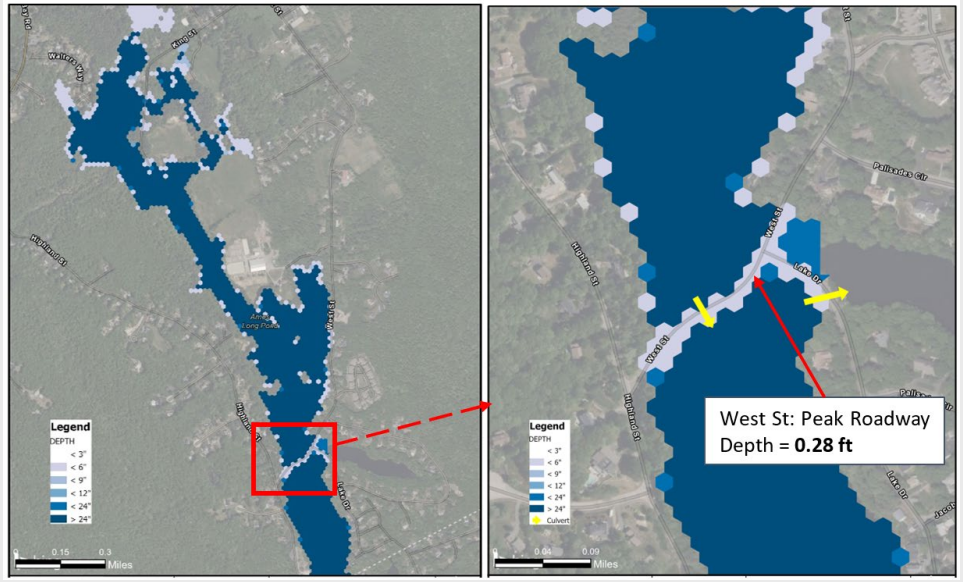
AWARD $218,000 **MATCH** $77,000

PROJECT TYPE Planning

CORE PRINCIPLES DEMONSTRATED Utilizing climate change data for a proactive solution; Conducting robust community engagement

DESCRIPTION

- Created a town-wide flood model to identify flood risk under climate change conditions
- Engaged the community to ground-truth flood model and provide input on next steps
- Proposed flood mitigation options for highest priority flood vulnerabilities in Town



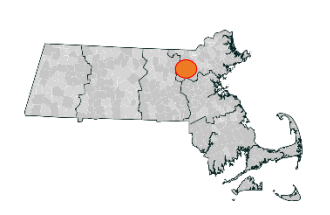
2070 100-year, 24-hour flood results for Ames Long Pond

Flow monitoring and field investigations as part of model development

Stow Acres North Acquisition & Climate Resilience Master Plan

MVP
Municipal Vulnerability Preparedness

Stow FY23-24



Learn More:

[Stow Acres Open Space Recreation and Housing Page]

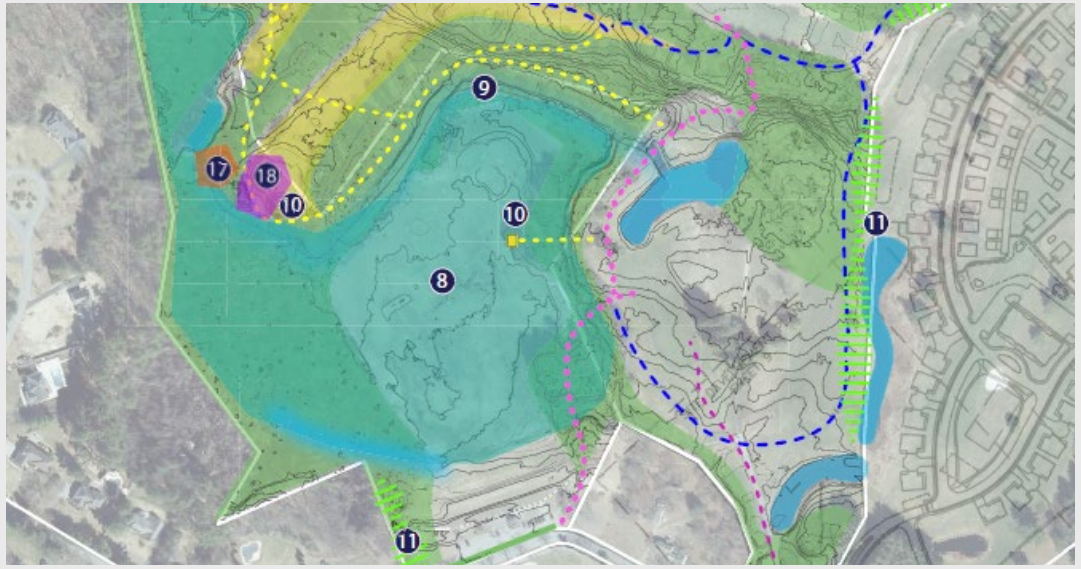
AWARD $1,135,000 **MATCH** $2,648,318

PROJECT TYPE
Year 1- Construction/On the Ground Implementation

Year 2 – Design and Permitting

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

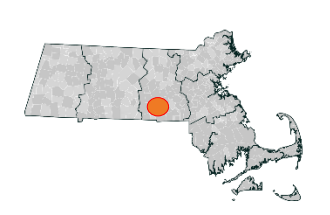
DESCRIPTION
When one of Stow's largest undeveloped properties (a golf course) appeared destined for development, the Town worked proactively to create a vision for this 326-acre property that includes a combination of land protection, restoration, and mixed income housing development. The MVP program assisted with land acquisition and preparation of a Climate Resilience Master Plan to serve as a long-term blueprint for restoration and use of this Town-owned property.



Manchaug Village
Water Resource Resiliency Action Plan

MVP
Municipal Vulnerability Preparedness

Sutton FY23



Learn More:

- Action Plan
- Project Website Site

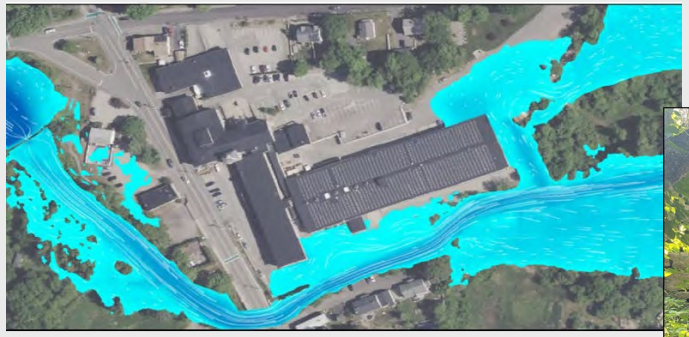
AWARD $75,000 **MATCH** $25,000

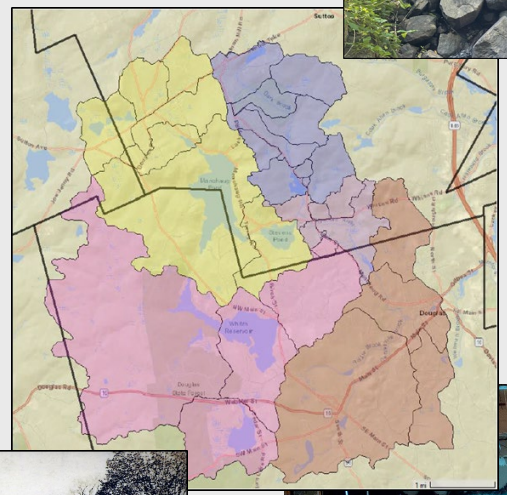
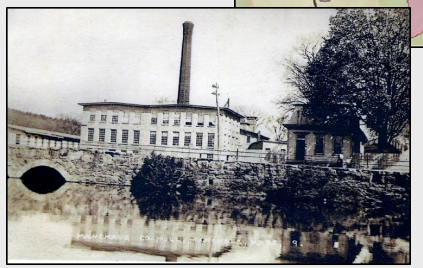
PROJECT TYPE Design & Permitting

CORE PRINCIPLES DEMONSTRATED
Conducting robust community engagement
Utilize climate change data for a proactive solutions

DESCRIPTION

- Hydrologic & Hydraulic (H&H) Study & detailed field study of the Village of Manchaug and surrounds (4 sub-watersheds)
- Summary of vulnerabilities/problems and formulation of potential solutions
- Multiple public meetings with participation of residents and partner organizations providing knowledge, information, and feedback
- **Manchaug Water Resource Resiliency Action Plan:** Compilation of all the work completed, including conceptual designs and planning level cost estimates

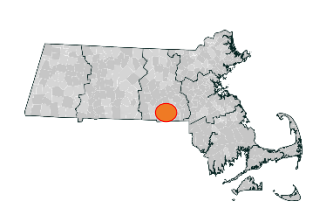



Home Brew and Whitin Pond Dam Removal

MVP
Municipal Vulnerability Preparedness

Uxbridge FY23



Learn More:

Project Website

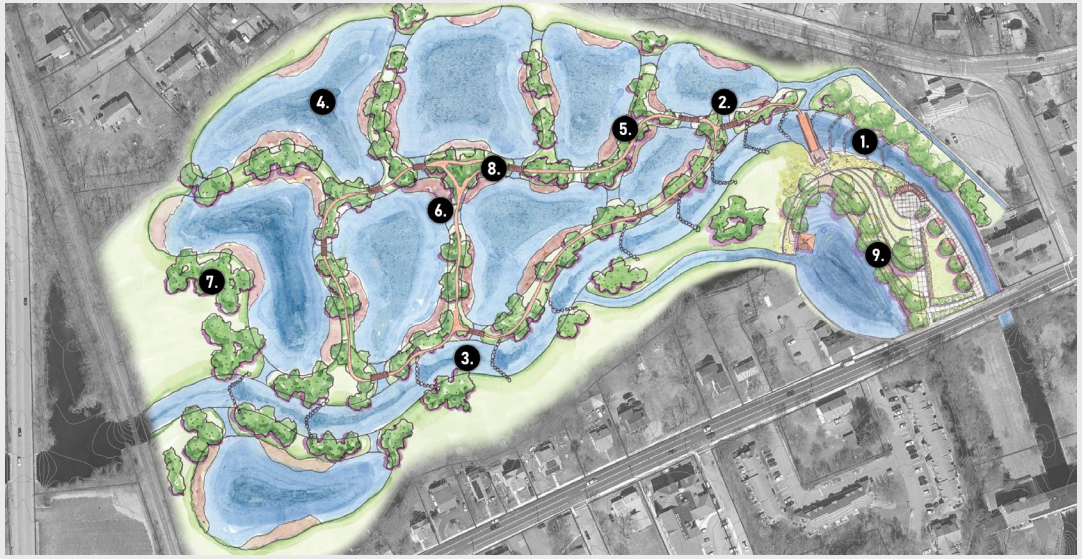
AWARD $185,450

PROJECT TYPE Design and Permitting

CORE PRINCIPLES DEMONSTRATED Employing Nature-Based Solutions; Increasing Equitable Outcomes for EJ Populations; Achieving Broad and Multiple Community Benefits; Robust Community Engagement

DESCRIPTION

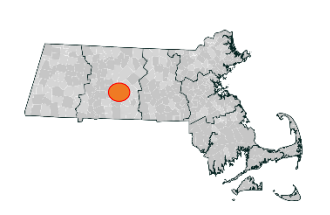
- Conduct feasibility assessment, design, and permitting for removal of Home Brew Dam, a non-jurisdictional dam on a cold-water stream and completely contained on property owned by the Uxbridge water department. Removal will increase aquatic connectivity and reduce vulnerability of the Town's water wells to flooding.
- Conduct preliminary sediment analysis, investigate ownership and title questions, and use a community visioning process and volunteer water chestnut pull to initiate public conversations about risk, resilience, and potential removal of Whitin Pond Dam.



Muddy Brook Watershed Resiliency Master Plan

MVP
Municipal Vulnerability Preparedness

Ware 23-24



Learn More:

Project Website

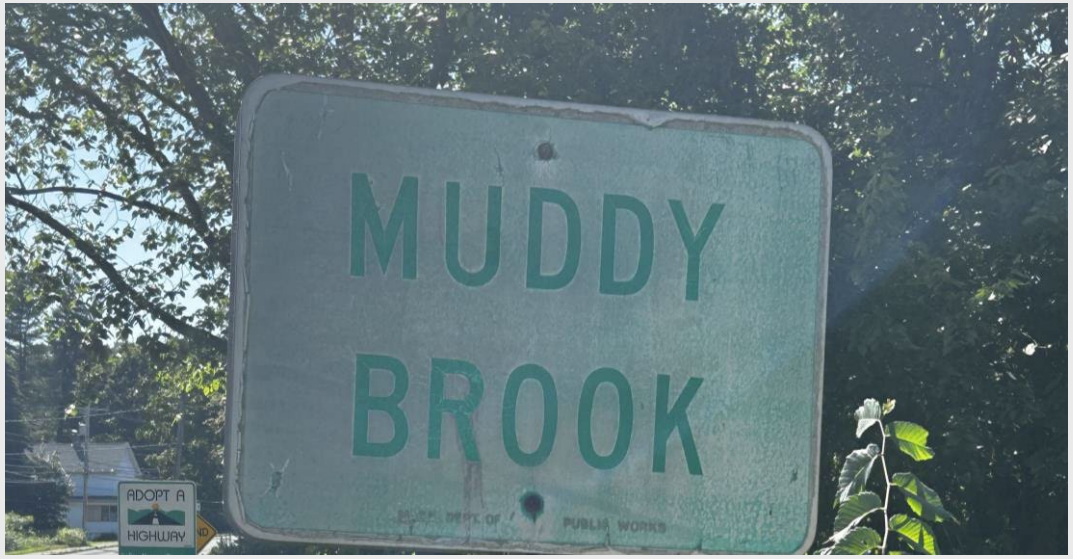
AWARD $39,590 **MATCH** $13,320

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

CORE PRINCIPLES DEMONSTRATED Conducting robust community engagement with EJ and other priority populations; Employing Nature-Based Solutions (NBS)

DESCRIPTION

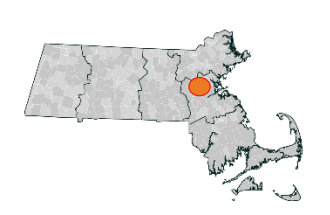
- Develop a subwatershed plan that characterizes current and future threats to the subwatershed and associated drinking water supplies from climate change and development and create a roadmap for increasing resiliency through identified areas of focus for improvements.
- Conduct robust public engagement, particularly with Environmental Justice communities within the subwatershed, to assist with identification of vulnerabilities and future actions, and to increase awareness of the importance of maintaining the health of the subwatershed.



Designing a Resilient Chester Brook

MVP
Municipal Vulnerability Preparedness

Waltham FY23



Learn More:

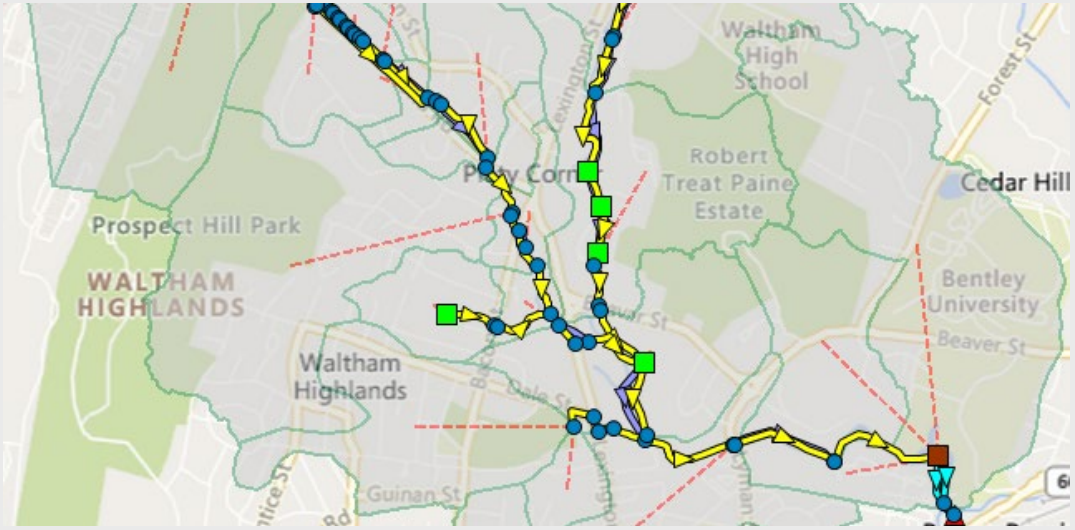
[Waltham Chester Brook Project Website]

AWARD $143,900 **MATCH** $53,600

PROJECT TYPE Designing a Resilient Chester Brook

CORE PRINCIPLES DEMONSTRATED Furthering a community identified priority action to address climate change impacts; Achieving broad and multiple community benefits

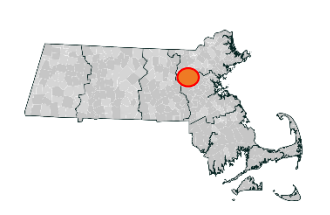
DESCRIPTION Chester Brook causes flooding roughly two to three times per year for the businesses and residents adjacent to the brook along Lexington St and Oakley Ln. This project designed a new flow control structure on Chester Brook to decrease flood volumes and improve fish passage.



Hurld Park Heat-Resilient Park

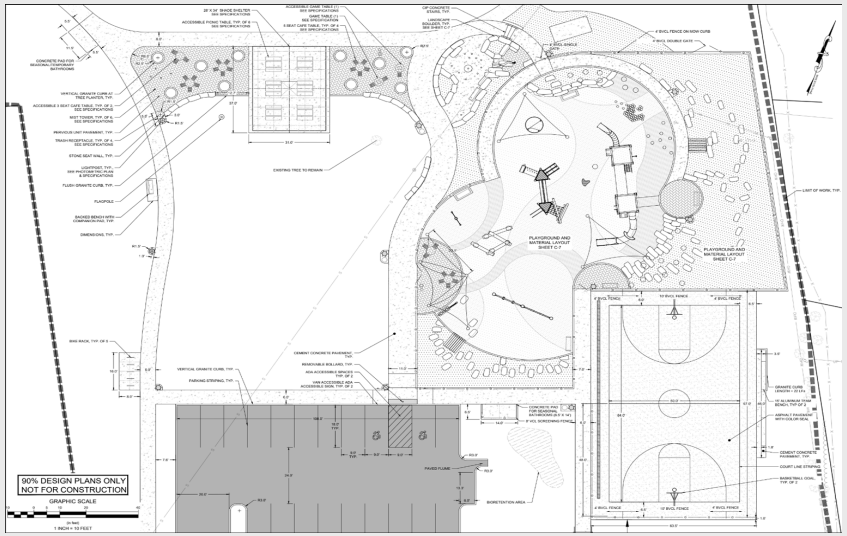
MVP
Municipal Vulnerability Preparedness

Woburn FY23-24



Learn More: [Project Website]

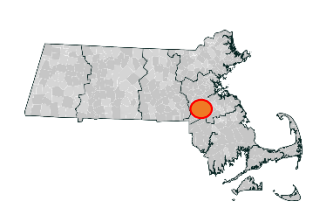
AWARD	$271,425	MATCH	$108,300
PROJECT TYPE	Type 2: Design and Permitting		
CORE PRINCIPLES DEMONSTRATED	Utilizing regional solutions toward regional benefit; utilizing climate change data for a pro-active solution		
DESCRIPTION	The goal of this project is to advance the design and permitting of the heat-resilient portion of the Hurld Park.		



Wrentham Eagle Dam Removal Phase II

MVP
Municipal Vulnerability Preparedness

Wrentham FY23



Learn more:

- Charles River Watershed Association Project Website
- Town of Wrentham Project Website

AWARD	$41,337	MATCH	$13,780

PROJECT TYPE

Design and Permitting

CORE PRINCIPLES DEMONSTRATED

Furthering a community identified priority action to address climate change impacts; Employing Nature-Based Solutions; Building community capacity for climate resilience; Utilizing climate change data for a proactive solution; utilizing regional solutions for regional benefit

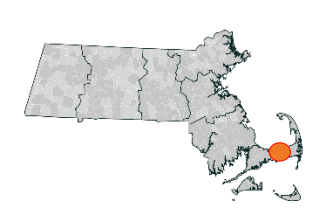
DESCRIPTION

- Additional feasibility assessment and hydraulic and hydrologic modeling of dam removal
- Community and youth engagement
- Engagement with Mashpee Wampanoag Tribe
- MassDOT coordination

Climate Change Vulnerability Assessment and Adaptation Plan

MVP
Municipal Vulnerability Preparedness

Yarmouth FY23



Learn more:

Project Video

AWARD $80,089 **MATCH** $32,893

PROJECT TYPE Planning Assessment

CORE PRINCIPLES DEMONSTRATED Furthering a community identified priority action to address climate change, utilizing climate change data for a proactive solution.

DESCRIPTION Using a climate change vulnerability assessment framework, the Town of Yarmouth evaluated the risks to town owned infrastructure from the impacts of sea level rise and coastal storm surge using the Massachusetts Coast Flood Risk model (MC-FRM). Consequence review and scoring allowed the project team to understand the criticality of each asset, and in concert with the probability of flooding created a ranked list of the most vulnerable assets across the Town. An adaptation plan aimed at reducing coastal flooding risks was developed for the Town.