FY23 Completed Action Grant Summaries



Municipal Vulnerability Preparedness Program

MA Executive Office of Energy and Environmental Affairs

Shawsheen River Nature-Based Flood Resilience



Andover FY23 – 24



Learn More:

Project website

AWARD

\$271,705

MATCH \$ 91,350

PROJECT TYPE

Type 1 (Assessment)

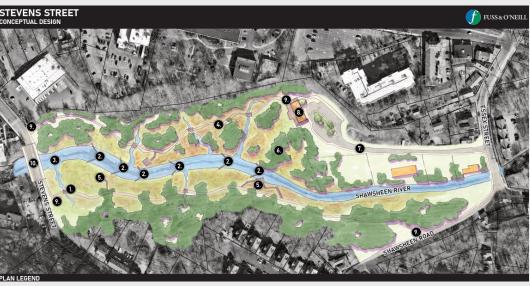
CORE PRINCIPLES
DEMONSTRATED

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.





Shawsheen River Nature-Based Flood Resilience



Andover FY23 – 24



Learn More:

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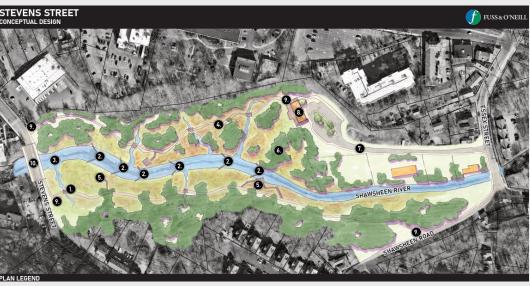
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Horseshoe Pond Acquisition Project



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

- 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



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



Dedham/Neponset Region FY23



Learn more:

Project Website

AWARD

\$389,457

MATCH \$133,144

PROJECT TYPE

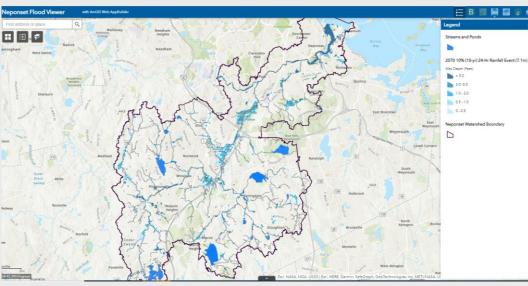
Planning, Assessments, Capacity Building, and Regulatory Updates

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.

- 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





Emerald Place Resiliency



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

- 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.





South Watuppa Pond Green Infrastructure — Blue Water Restoration Project



Fall River FY23



Learn more:

- Watuppa Reserve Project Website
- Project Facebook Page

AWARD

\$415,127

MATCH \$138,075.50

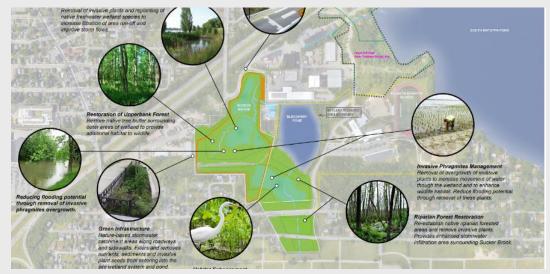
PROJECT TYPE

Planning and Design

CORE PRINCIPLES DEMONSTRATED

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

- 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



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

- 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



Fitchburg FY23



Learn More:

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

AWARD

\$109,000

MATCH \$36,500

PROJECT TYPE

Design and Permitting

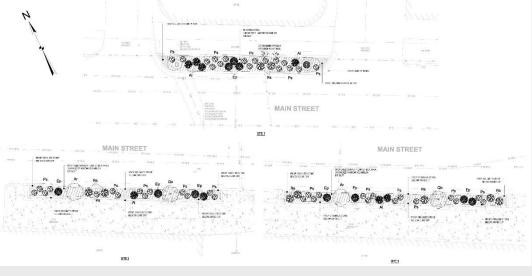
CORE PRINCIPLES DEMONSTRATED **Employing Nature Based Solutions**

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



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.

- 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





Lincoln Comprehensive Climate Action Plan (L-CAP)



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.



Lincoln Climate Action Plan

Questions or comments?

Contact Jennifer Curtin curtinj@lincolntown.org



The Town of Lincoln is planning for a resilient and sustainable future, and we want to hear from you!

Visit the project website to register for Community
Workshops on April 12 at 7PM and April 14 at 8:30AM



lincolntown.org/1411/ Climate-Action-Plan Take and share the public survey to tell us your thoughts on climate action planning
Closes on April 10, 2023



www.Tinyurl.com/ LincolnClimateActionSurvey

Chicopee Brook Flood Resilience Improvements



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

- 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.



Kempton Street Corridor Green Infrastructure



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



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

- 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



Saugus Pines River Vulnerability and Adaptation Study



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.





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



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

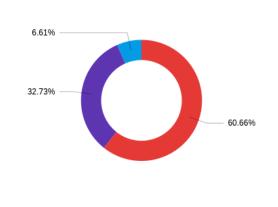
DESCRIPTION

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 CLIMATE CHANGE



Somewhat Concerned Not concerned

Shrewsbury Municipal Climate Action Plan



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

- 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



South Hadley FY23



Learn More:

Project Website

AWARD

\$162,000

MATCH \$54,650

PROJECT TYPE

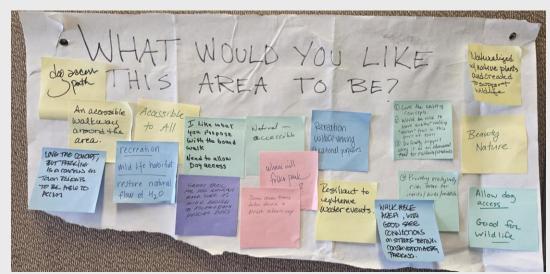
Action Grant Project

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.





Manchaug Village Water Resource Resiliency Action Plan



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

- 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



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

- 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.





Designing a Resilient Chester Brook



Waltham FY23



Learn More:

Waltham Chester Brook Project Website

AWARD

\$143,900

MATCH \$53,600

PROJECT TYPE

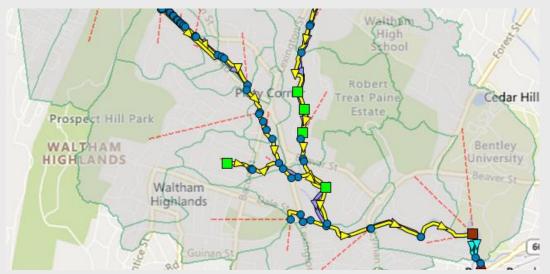
Designing a Resilient Chester Brook

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.





Wrentham Eagle Dam Removal Phase II



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

- 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



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.

