

Municipal Vulnerability Preparedness Program Action Grant Case Study

Municipality: Plympton

Project Title: Building a Municipal Resilience Portfolio: Assessment of Critical Land in the Winnetuxet Corridor in Plympton

Award Year (FY): FY '21

Grant Award: \$ 41,930

Match: \$ 14,320

Match Source: Taunton River Stewardship Council

One or Two Year Project: One

Municipal Department Leading Project: Elizabeth Dennehy, Town Administrator and Linda Leddy, Conservation Commission/Open Space Committee

Project Website URL: <https://srpedd.org/comprehensive-planning/environment/climate-resilience-planning/municipal-vulnerability-preparedness-mvp-planning/winnetuxet-watershed-resilience-portfolio/>

Community Overview:

- What is the population size of your community and where is it located? 2,985
- Do you have any [Environmental Justice](#) or other Climate Vulnerable communities? No (Think about both those who live and work in your town.)
- Other unique traits of your municipality like who the top employers are, geography, history, etc. Traditionally rural/agricultural with a number of significant cranberry farms

Project Description and Goals:

- Where was the project located? The Winnetuxet River Watershed
- What climate change impacts did the project address? Nature based services provided by our natural green infrastructure; soil carbon sequestration in peat and agricultural soils as well as forestland; vector borne threats to forests; impacts of flood/drought cycles and temperature fluctuation
- What were the specific goals and tasks of the project as stated in your application?
- Did your project meet the goals set forth in your application in terms of:
 - Employing nature-based solutions: In terms of education, applicability, and opportunity for future use, definitely
 - Improving equitable outcomes for and fostering strong partnerships with EJ and other Climate Vulnerable Populations: N/A
 - Providing regional benefits: Yes, in terms of working with watershed neighbors in Middleboro and Carver, who were invited to take part in the project workshops/presentations
 - Implementing the public involvement and community engagement plan set forth in your application: Yes
 - Finishing the project on time: Yes

Results and Deliverables:

- Describe, and quantify (where possible) project results (e.g. square footage of habitat restored or created, increase in tree canopy coverage, etc.). Report out on the metrics outlined in your application. N/A
- Provide a brief summary of project deliverables with web links, if available. All of the project deliverables (and there are many) are located on the Winnetuxet Watershed Project Page at: <https://srpedd.org/comprehensive-planning/environment/climate-resilience-planning/municipal-vulnerability-preparedness-mvp-planning/winnetuxet-watershed-resilience-portfolio/>

Lessons Learned:

- What lessons were learned as a result of the project? Focus on both the technical matter of the project and process-oriented lessons learned. Technically, the role of forests and soils in community resilience was a major point of discussion, but the use of the TNC NBS tool and the MAS Bylaw Review tool provided participants with direct insights as to how and why our green infrastructure is so important in mitigating the impacts of climate change, and how our bylaws help us to maximize NBS and LID potential.

The other major lesson was that what may appear to be a prime site for restoration, upon careful examination, may not be at all, when all of the site factors are considered.

- What is the best way for other communities to learn from your project/process? Visit the Project Page and feel free to contact Bill Napolitano at bnap@srpedd.org

Partners and Other Support:

Include a list of all project partners and describe their role in supporting/assisting in the project.

As the project technical team lead, **SRPEDD** has a long history of engagement with the communities of Plympton, Carver, and Middleboro around watershed management issues, including studies, plans and workshops on the issues of: natural resource management plans; groundwater and surface water protection plans; stormwater infrastructure assessment; stream continuity; open space and master plans; resilience planning; serving as MVP planning grant providers; and hazard mitigation planning. In this project, SRPEDD provided grant administration services, convened monthly project team meetings, established an appropriate public engagement strategy and schedule, served as the main point of contact between the project team and the Town, provided land use planning and GIS support, led project task scheduling, and led the process of project action item prioritization with the Town.

SRPEDD also engaged staff from the MA Division of Ecological Restoration's (DER) Cranberry Bog Restoration Program, and State Healthy Soils Action Plan team, in order to more completely assess bog restoration potential and retention of carbon critical soils as resilience strategies within the project study area. SRPEDD's project staff included Bill Napolitano, Director of Environmental Programs, Helen Zincavage, AICP, CFM, Assistant Director of Environmental Programs, Ben Myers,

and Julianne Griffiths of the Environmental program team. Jim Newman of Linean Solutions (State Healthy Soils Action Plan), and Alex Hackman, Director of the DER Cranberry Bog Restoration Program, made significant contributions to this portion of the project.

TNC: In close collaboration with the MVP project team, TNC will led the task of Prioritizing Nature Based Solutions in the project study area. TNC explained and demonstrated, in a public workshop, its new tool developed to help users site nature-based solutions (NBS) for climate resilience outcomes. This tool can help guide the implementation of NBS by looking at how such climate related threats as inland flood, coastal flood, and drought hazards overlap with opportunities for nature-based solutions. This task explored a few examples of local (Plympton, Carver, Middleboro) MA Municipal Vulnerability Preparedness (MVP) Plan climate resilience priority actions, as well as priorities outlined in the Plympton Open Space and Recreation Plan, then walked through the use of the tool, and developed a statement and potential plan of work for moving forward with feasibility planning and implementation. TNC, along with the project team and local participants, worked to identify either technical or on-the-ground support needs, relevant partners, and potential sources of funding. Nature based solutions projects are still in the pilot phase throughout Massachusetts, and by creating a framework to discuss, prioritize, and fund projects watershed wide, we hope to encourage and advance the practice of implementation. Sara Burns, Water Resource Scientist, led the TNC portion of the project.

Manomet, Inc.: Led the task of Identification and Analysis of Critical Green Infrastructure (GI) in the project area. Emphasis was placed on identification and prioritization of land conservation opportunities that address protection of water quality, insuring adequate drinking water supply, minimizing flood threat, provision of public open space, and protection of wildlife habitat. Manomet participated in the process of formalizing and documenting the holistic approach to watershed management and completing the watershed management goals and metrics. This was achieved through a mix of GIS analysis and field work to support site selection for potential acquisition, environmental stewardship, and restoration efforts, both in the headwater forests of the Winnetuxet, and at the intersection of green infrastructure network with other natural and man-made features of note, within the broader watershed boundaries. In addition, Manomet provided support for community engagement efforts, and development of final reports for the overarching project. Eric Walberg, AICP, led the stormwater/green infrastructure work. Dr. Neil Williams led the forestry work. He holds a PhD in Sustainable Forest Management and is an expert on climate change forest response.

Mass Audubon (MAS): The project team drew upon Mass Audubon (MAS)'s extensive experience in local land use, habitat protection, and bylaw review, through the Shaping the Future of Your Community program. MAS protects 38,000 acres of land for people and wildlife in the Commonwealth of Massachusetts. In this project, MAS: (1) identified the top barriers to integrating LID best practices into local regulations; and (2) provided, in coordination with the Town and Project Team, one training in LID and the use of the MAS Bylaw Review Tool; (3) led an exercise for local staff to conduct a guided evaluation of identified problematic bylaws in their community, compare results as a group, and brainstorm improvements to enhance environmental protection, GI and NBS opportunities, and greater regional consistency, and; (4) participated in additional public and all project team meetings. MAS's Southeast Shaping Future of Your Community/Climate Resilience Coordinator, Danica Warns, led the MAS portion of the project.

Project Photos:

- In your electronic submission of this report, please attach (as .jpg or .png) a few high-resolution (at least 300 pixels per inch) representative photos of the project. Photos should not show persons who can be easily identified, and avoid inclusion of any copyrighted, trademarked, or branded logos in the images. MVP may use these images on its website or other promotional purposes, so please also let us know if there is someone who should receive credit for taking the photo.