

Municipal Vulnerability Preparedness Program Action Grant Case Study

Municipality: Town of Sutton

Project Title: Manchaug Water Resource Resiliency Action Plan

Award Year (FY): 23

Grant Award: \$ 75,000

Match: \$ 25,000

Match Source: In kind hours, town cash & donations

One or Two Year Project: One Year

Municipal Department Leading Project: Planning Department

Project Website URL: <https://www.suttonma.org/home/pages/manchaug-vulnerability-preparedness-mvp-grant-manchaug-water-study-project-information>

Community Overview:

The Town of Sutton is a community of approximately 9,600 people located in Central Massachusetts three miles southeast of the City of Worcester. The Town is bisected by Route 146 and is located just east of Route 395. The community is 34 square miles with a wide variety of built and natural land use/forms including 1800s mill villages, rolling farms, smaller and large lot subdivisions, industrial parks, single homes along 104 miles of public roadways, small commercial plazas, and significant open spaces. The Town shares two lakes with neighboring towns and is home to several varying sized ponds and a myriad of smaller water bodies, streams, and wetland systems. We host sections of both the Blackstone and Mumford Rivers on which our two mill villages are located. Sutton is also home to Purgatory Chasm State Park and Sutton State Forest.

The Town is not home to any technical Environmental Justice or significant Climate Vulnerable populations, although the Village is home to many of the Town's lower income and elderly with less means to mitigate climate change impacts. Our top employer is our local school system and municipal government services, followed by our one grocery store, and smaller employers like our local golf courses. We have several dozen local businesses including two world-class manufacturing establishments. However, over 91% of the Town is zoned for rural residential/agricultural uses which has resulted in higher land/home prices and related social and economic effects we are working to resolve.

Project Description and Goals:

Our MVP Project is located in the Village of Manchaug on the banks of the Mumford River and its tributaries. The primary intent of the project was to try to prevent future flooding which has caused infrastructure and property damage over the last 15 years. As climate change is anticipated to increase rainfall amounts as well as frequency and severity of other weather events, it is imperative to evaluate our local systems for vulnerabilities so they can be addressed to become more resilient.

The specific goals of our project were to study the Village Watersheds both through a hydrological and hydraulic study as well as on the ground/water field study in an around the Village. A key component was interfacing with the public including Village residents and partner organizations to obtain and knowledge and information, and asking them to review and comment on work product as the project went along. Once base conditions were evaluated and summarized a list of vulnerabilities/problems was formulated and from that a potential list of solutions all of which were presented in public meetings and posted on the Town's website for discussion and input. Lastly all of the data and information developed was combined to form the Manchaug Village Water Resource Resiliency Action Plan. Cost estimates and funding sources were also included in the Plan.

Potential solutions are wide ranging including infrastructure improvements, building modifications, bank, channel and floodplain restorations, green stormwater infrastructure, and more. Nearly all of these suggestions can be replicated in similar systems, and as each task is accomplished most will provide benefits beyond Sutton within these watersheds (and beyond!).

Lessons Learned:

Staff learned a lot about H &H Studies and the big and small, nature based and man-made ways to approach these type of issues. We felt our process was highly inclusive of the Village community, but we learned if we include the right partner organizations, like the Blackstone Watershed Collaborative, news and results of our work can and will be shared much more widely. Other communities can directly utilize the potential solutions from our Action Plan on similar issue within their community, and some of the issues we found in our base study can also provide a starting point for what other communities should look for in their study areas.

Partners and Other Support:

Partners in our project included Central Massachusetts Regional Planning Commission (CMRPC) who provided mapping support and provided a staff member who fully participated as a member of our MVP team. The following organizations attended many of our meetings, reviewed work product, and provided input and guidance. Many have also offered to partner with the Town on some of the potential solutions and/or have provided information and contacts for potential assistance and funding sources: Blackstone Watershed Collaborative, Blackstone River Watershed Association, Manchaug Pond Foundation, MassDOT, and Department of Fish and Game.

Project Photos: Attached.