Municipal Vulnerability Preparedness Program Action Grant Case Study

Municipality: Town of Groveland Project Title: Johnson Creek Watershed Flood Resiliency Project Award Year (FY): FY22 Grant Award: \$ 82,186 Match: \$ 27,843 Match Source: Town One or Two Year Project: One Year Municipal Department Leading Project: Planning / Department of Public Works Project Website URL: <u>https://www.grovelandma.com/economic-development-planningconservation-department/pages/municipal-vulnerability-preparedness</u>

Community Overview:

- What is the population size of your community and where is it located? Population is approximately 7,000. Town is located on the North Shore.
- Do you have any <u>Environmental Justice</u> or other Climate Vulnerable communities? No designated EJ population in Town; however, potential commuters from adjoining Haverhill.
- Other unique traits of your municipality like who the top employers are, geography, history, etc. Located directly adjacent to the Merrimack River which has historically caused flooding in Town.

Project Description and Goals:

- Where was the project located? Johnson Creek Watershed.
- What climate change impacts did the project address? Primarily flooding.
- What were the specific goals and tasks of the project as stated in your application? The purpose of the project was to perform a detailed watershed-wide vulnerability study relative to potential future climate change conditions. The outcome of the project was to develop a prioritized action plan to increase resiliency.
- Did your project meet the goals set forth in your application in terms of:
 - Employing nature-based solutions Yes. A variety of nature based solutions were recommended including stream restoration and green infrastructure implementation.
 - Improving equitable outcomes for and fostering strong partnerships with EJ and other Climate Vulnerable Populations Executed many stakeholder engagement opportunities to give all members of the public a chance to participate and provide project feedback and input – e.g., council on aging members; home and business owners in flood risk areas, etc.
 - Providing regional benefits Yes. Some potential improvements are intended to improve conditions in both Haverhill and Groveland. Potential improvements will

also improve public safety during future storm events for Town residents and other members of the public that travel through Groveland.

- Implementing the public involvement and community engagement plan set forth in your application Yes. All tasks were implemented as scoped. Highlights include in-person attendance at "Groveland Day" and a Council for the Aging Event; receipt of positive public feedback surveys, and preparation of flood signs highlighting the project and where to find more information via the project website.
- Finishing the project on time. Deliverables were completed and submitted by June 30, 2022.

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. Project outcome included 15 detailed recommendations to improve flood resiliency throughout the watershed. Recommendations included projects that provide nature based solutions and other environmental co-benefits. It is expected that the recommendations will reduce or eliminate flooding at 12 locations throughout the watershed during the 100-year storm (or smaller).
- Provide a brief summary of project deliverables with web links, if available. All project deliverables are available at the project website: <u>https://www.grovelandma.com/economic-development-planning-conservation-</u> <u>department/pages/municipal-vulnerability-preparedness</u>

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. The project went as planned and scoped. Would try to provide more creative and interactive engagement opportunities such as site walks in a future funding round.
- What is the best way for other communities to learn from your project/process? The project report, available on the project website, provides step by step instructions on how field data collection, modeling, and recommendations were performed.

Partners and Other Support:

- Include a list of all project partners and describe their role in supporting/assisting in the project.
 - Town of Groveland Multiple departments came together to perform various tasks over the course of the project including field data collection, attendance at monthly meetings, and coordination and execution of multiple public engagement opportunities.

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. Project maps are pasted below. Maps depict locations of prioritized improvements and potential improvements to flooding throughout the watershed should recommendations be implemented.





Simulated Baseline Flooding (100-Year Storm, Existing Conditions)



Simulated Potential Flooding with Improvements (100-Year Storm, Existing Conditions)