

Municipal Vulnerability Preparedness Program Action Grant Case Study

Municipality: Milford

Project Title: Green Stormwater Infrastructure in Milford Town Park

Award Year (FY): FY21

Grant Award: \$ \$422,370

Match: \$ 150,000

Match Source: The \$150,000 match for this project will be cash funds provided by Charles River Watershed Association (CRWA), the Town of Milford's direct partner for this project. In 2018, CRWA, and Milford Power, LLC entered into an agreement around an expansion at the Milford Power Plant. In 2019, CRWA, the Town of Milford, and Milford Power, LLC further agreed that \$150,000 would fund implementation of stormwater recharge projects in the Upper Charles Watershed.

One or Two Year Project: Two year

Municipal Department Leading Project: Milford Highway Department

Project Website URL: <https://www.crwa.org/milford>

Community Overview:

- What is the population size of your community and where is it located?

The Town of Milford is a thriving Upper Charles River Watershed community of 30,196 residents (2022 US Census), located along I-495, with easy access to Boston, Worcester, and Providence over major highways. The Town is in Worcester County in south-central Massachusetts, bordered by Upton on the west; Hopkinton on the north; Holliston, Medway, and Bellingham on the east; and Hopedale on the south.

- Do you have any [Environmental Justice](#) or other Climate Vulnerable communities? (Think about both those who live and work in your town.)

Based on the Updated 2022 Massachusetts Environmental justice (EJ) Populations data, EJ communities in Milford constitute about 76% of the population (23,109 people). The EJ population is predominantly minority at 62% and one EJ block within Milford has minority, low income, and english isolated populations where the median household income as low as \$34,219, and up to 34% of households have no one over the age of 14 who can speak English "very well."

- Other unique traits of your municipality like who the top employers are, geography, history, etc.

The Town of Milford is home to the Milford Regional Medical Center, which service area covers 20-plus towns in Worcester, Middlesex, and Norfolk counties. Moreover, Milford has a rich history in industry such as granite quarrying and the manufacture of boots and shoes. The town is known over the world for its unique pink granite, discovered by 1860 and quarried for many years thereafter. Milford pink granite continues to adorn the facades of museums, government buildings, monuments and railroad stations in Boston, New York, Washington D.C. and Paris.

Project Description and Goals:

- Where was the project located?

The project was located at Milford Town Park within an environmental justice community that has a 28% minority population.

- What climate change impacts did the project address?
 - Stormwater flooding
 - Low river flow
 - Water pollution
 - Extreme heat
 - Reduced groundwater recharge
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- What were the specific goals and tasks of the project as stated in your application?

#	Goal	Task
1	Design two rain gardens and one infiltration chamber system within Milford Town Park during SFY21	75% Design and Final Design
2	Construct two rain gardens and one infiltration chamber system within Milford Town Park during SFY22	Permitting and Construction
3	Engage with Milford residents, especially in environmental justice communities, and educate them about climate change impacts and adaptation strategies through media, meetings, classroom visits, and tours	Community Engagement

- Did your project meet the goals set forth in your application in terms of:
 - Employing nature-based solutions

Yes – this project employed Green Stormwater Infrastructures, specifically two rain gardens and one infiltration chamber system, to capture, treat, and infiltrate stormwater before it enters the pipe system and discharges to a waterbody.

- Improving equitable outcomes for and fostering strong partnerships with EJ and other Climate Vulnerable Populations

Yes- The project's location within Environmental Justice (EJ) communities in Milford, combined with its educational and outreach initiatives, played a significant role in fostering strong partnerships and promoting equitable outcomes.

- Providing regional benefits

Yes – The project site is within an EJ community and adjacent to two Milford Public Schools: Memorial Elementary School and Stacy Middle School. This advantageous proximity enabled the project to benefit all of the EJ communities within Milford as well as the schools, which all students in the district attend. The project team also directly engaged with students at these schools and with students and families from communities attending the local Children Across America Program. A permanent educational sign

with translated Spanish and Portuguese text provides a learning opportunity for visitors in this heavily frequented park.

- o Implementing the public involvement and community engagement plan set forth in your application

Yes – The project team successfully implemented the public involvement and community engagement plan set forth in their application. The team held classroom programs at the Milford Public Schools and the Children Across America Program, and conducted presentations to the Milford communities and the Charles River Climate Compact group. Educational materials were developed in the three most prominent languages in Milford, ensuring that information and resources were accessible to a diverse range of community members.

- o Finishing the project on time

Yes – The project was completed on May 6, 2023.

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.

This project resulted in the construction of three stormwater BMPs sized to treat stormwater runoff from an area of 26.8 acres. These BMPs reduce stormwater loading by a total of 25 lbs of phosphorus each year.

- Provide a brief summary of project deliverables with web links, if available.

The completed project can be viewed at the Milford Town Park, Milford Massachusetts, 01757. Information about the project is available on a dedicated project website: <https://www.crwa.org/milford>

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.

This project demonstrated four important lessons that can be carried forward into other GI implementation plans:

1. Subsurface infiltration systems that serve large drainage areas (>3 acres) and tie into existing storm sewers are efficient and cost effective BMP for phosphorus mitigation. These systems are well matched with grassy playing fields and open parkland.
2. In part due to challenges related to COVID-19, a large amount of the construction work and planting was performed directly by town staff. This resulted in substantial cost savings and increased municipal capacity to construct similar future projects. MS4 compliance will require sustained engineering design and construction work for at least the next 15 years. Municipalities should carefully consider what portion of this work can be completed by staff and what portion requires outside consultants and contractors. Grant driven projects may provide a good opportunity to support municipal staff in taking on this new work.
3. This project combines a large subsurface system with two above ground rain gardens. This combination of hidden and highly visible elements strikes a good balance between cost effectiveness and leveraging stormwater projects to enhance the public realm.

4. Public ribbon cuttings, tours, and outreach are important tools for educating the public about the need and benefits of green stormwater infrastructure.

- What is the best way for other communities to learn from your project/process?

Please visit the project site in Milford, read more about the project on our website, and feel free to contact municipal staff or CRWA personnel directly.

Partners and Other Support:

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

Mike Dean. P.E – Town Engineer, Town of Milford. Mike was the municipal lead for 2021-2022 including the design and initial construction phase.

Scott Crisafulli - Highway Supervisor, Town of Milford. Scott was the final municipal lead for this project and coordinated final construction and planting in 2023

James Asam – Parks and Recreation Administrator, Town of Milford. Jim assisted with construction, planting, maintenance, design, and site access.

Steve Stanish – Senior Engineer, Horsley Witten Group. Steve was the project engineer for the Milford GSI and supported the construction process and final planting through the duration of the project.

Pallavi Mande – Director of Watershed Resilience. Pallave provided project management in 2021.

Lisa Kumpf – Project Manager, CRWA. Lisa provided project management in 2021.

Janet Moonan – Project Manager, CRWA. Janet provided project management from 2021-2022.

Robert Kearns – Project Manager, CRWA. Robert provided project management in 2022.

Max Rome – Project Manager, CRWA. Max provided project management in 2023.

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.

See attached presentation 5.1_project-photos.pdf