

## **Municipal Vulnerability Preparedness Program Action Grant Case Study**

**Municipality:** Town of Reading

**Project Title:** Maillet, Sommes, & Morgan Constructed Wetland

**Award Year (FY):** FY23-24

**Grant Award:** \$2,221,172.23

**Match:** \$795,319.34

**Match Source:** Cash Match – design, support services and construction

**One- or Two-Year Project:** 2-year

**Municipal Department Leading Project:** Planning Division / Engineering Division

**Project Website URL:** [www.readingma.gov/msm](http://www.readingma.gov/msm)

### **Community Overview:**

The Town of Reading is located in Middlesex County, Massachusetts and is situated just 15-miles north of Boston. It is served by just over 25,400 peoples with direct access to both I-93 and I-95, as well as MBTA Commuter Rail stop and a bus line. Through it's recent findings Reading has identified a designated Environmental Justice (EJ) block tract in Census Block Group 3, Tract 3342 in Middlesex County, MA. This Block Group was designated an Environmental Justice tract due to findings that the area maintains at least 25% of households having a median household income of 65% or less than the state median household income. This tract was found to house an estimated population of 841 peoples in 491 households. The median income of the tract was found to be \$53,606, or 62.4% of the MA median household income. 4.6% of the tract's population was found to be minority populations and 1.4% were found to be language isolated. The EJ tract is located to the south-east of the project site and within/to the west of downtown Reading. Additional climate vulnerable populations identified include senior and aging populations, disabled residents, as well as those who have lower income which can directly relate to transportation and other challenges.

Reading is a predominantly residential community but maintains a growing downtown that has added over 200-residential units (over 20% of which are deed restricted affordable units, helping Reading achieve a 10% subsidized housing inventory) in mixed-use development in the last 1.5 decades. The existing Main St corridor and industrial district also maintains a number of commercial retail and manufacturing employers; and public service also being a primary employer.

The Town continues to manage its growth in creative and effective ways, and preparing for climate change resilience, both infrastructurally and socially, is a strong piece of such management.

## **Project Description and Goals:**

The project is located at the upper portion of the Mystic River Watershed and near the center of Downtown Reading. The project sought to address climate related in-land flooding in the upstream portions of the watershed through adjacent storage areas. These storage areas would capture stormwater, provide treatment and water quality improvements, and slow the discharge back into the Aberjona River, which in turn helps downstream communities also see reduced flooding and erosion. A broader goal was to also turn the existing non-accessible area into an ADA accessible trail that improved the ecological habitat through native species replacement. The project has met these goals to critical success – the series of wetland pools were constructed, and habitat replacement is taking well. The Town has also sought to improve pedestrian connections through sidewalk expansion in residential areas near the project to help make the project accessible. For a construction-based project public engagement has gone well with door-to-door conversations (most specifically in the EJ tract), constant updates on the project webpage, project status updates to local subscribers, and to the Conservation Commission in public hearings. Many members of the public are excited for this trail to open and visually learn more about its benefits. The project is finishing substantially on-time with completion expected in early Fall 2024.

## **Results and Deliverables:**

The project delivered the results of providing additional natural habitat than was disturbed. Over 65 trees have been replanted and over 100 shrubs, more than noted in the original application. Seeding, flowering and wetland restoration was also provided across the site and invasive species management was expanded to provide substantial improvement in reduction. The wetland pools were completed, and in some cases expanded in width or depth, as designed to meet storage capacity. In addition to meeting the climate related designs, the Town was able to proudly remove hazardous materials found on-site in order to maintain the design and benefits. This hazardous materials removal was a major cause in schedule adjustments and costs on the Town's end. However, we are glad to have committed to the outcome of a cleaner site for both the public and the environment.

Project deliverables were most often proof of costs and payment. However, construction reports and site notes, along with a timeline of images, was provided to help provide additional context. Engagement flyers and awareness were also provided. The final As-Builts will be submitted upon full completion of the project. Project deliverables are maintained [here](#).

## **Lessons Learned:**

Project lessons include the need to prepare for hazardous materials findings upon soil analysis, contingency costs for site improvements as the project moves along, and constant cross communication being imperative. Luckily in Reading's case and through the seeking of Federal grant funding we were able to provide the removal of hazardous material without substantial increase to local funding. Soil analysis is a difficult item to time as you don't want to begin to

early, as should you find hazardous materials the clock begins, but also not having a full understanding can put you behind financially. The federal grant in our case was a major contributor to the project. As with many projects you will always find minor changes that can improve the overall effect and design. This type of project more so than others, as the Town and Contractor ran into 20 Change Orders substantially related to in-field findings that required adjustments to the plan design. These costs can add up quickly and it is helpful to find funding that can allow for these improvements beyond the original contract cost. Lastly, these projects requiring construction oversight from consultants, contractor needs, engineering division oversight and contracts, fiscal/grant management from planning or other divisions, and conservation division/commission being the landowner project authority required communication that ensured everyone was aware of what was going on. Through weekly meetings and written expectations of the upcoming work to be done we were able to adequately manage all party needs. This may sound obvious and expected, but it is no easy task, especially with varying opinions. Strong project leaders who can push the intent of the projects overall goals is extremely beneficial. We would recommend all communities to review their budget allowances (both in grant and locally) and ensure project management experience is found within the municipal team.

### **Partners and Other Support:**

- Engineering and DPW Division – Local project management and site inspections
- Planning Division – Grant management and public engagement
- Conservation Division and Commission – landowners and stewards of the project
- Horsley Witten – Designers and construction management assistance
- T-Ford – Contractor completing construction
- State and Federal Delegations – Securing of grant funding and support
- Mystic River Watershed Association and Resilient Mystic Collaborative – Regional project stewards
- Reading Select Board and Town Meeting – Local authorization of matching funds
- Reading Climate Advisory Committee and Trails Committee – Project supporters

### **Project Photos:**

Included in deliverables folder.