Project Narrative

Please provide your full project narrative. Use the rating system as a guide for what information should be included in the narrative to ensure the maximum score possible for your project. Please keep in mind that reviewers will likely not have historic knowledge of your MVP process, this project, or supporting efforts – please provide a full, yet succinct explanation for each question. This section should be completed, saved as a PDF and uploaded to the online form in the appropriate section. Total size of all documents attached to the online form cannot exceed 25 MB. Please keep responses to a reasonable length, under 25 pages.

1. Project Description, Rationale, and Climate Data (13 points)

- **Up to 8 points** for description & rationale, including:
  - What climate change impacts/vulnerabilities this project will address
    - If applicable, please reference the RMAT Climate Resilience Standards Tool climate exposure ratings and how the project is responding to the climate exposures identified through the tool.
  - What the project’s goals and objectives are.
  - Why the project was chosen.
    - How the project will positively impact the resiliency of the site and community.
    - If applicable, please include quantifiable information about the historic or expected future damages that are likely to occur if the project is not completed (e.g., number of people/homes/structures at risk, number of people depending on the infrastructure being improved, extent of past flooding, expected cost if infrastructure fails, etc.).
  - How the project reflects municipal priorities established in the community’s MVP-approved report or subsequent climate resilience report that built upon the MVP process.
- **1 point** for utilization and report from the [RMAT Climate Resilience Design Standards Tool](https://resilientma.org)
  - Project is NOT focused on a specific site and/or does NOT include physical asset/s --e.g., building, infrastructure, natural resources-- at any project phase
  - You are not required to submit a report and will receive this point.
- **Up to 3 points** for the degree to which the most up-to-date climate science and data (including data found on resilientma.org, the [RMAT Climate Resilience Design Standards Tool](https://resilientma.org) and/or local-level studies) will be utilized, including specific reference to the climate data utilized.
  - For Project Type 1: Planning, Assessments, Capacity Building, and Regulatory Updates – What climate data will be used to inform the process or report and how will they be utilized? If it is a regulatory project, how will the regulations use climate data to ensure they will provide reasonable and effective guidance into the future?
- **1 point** for inclusion of MVP yearly progress report (Attachment D)
  - [MVP Planning Grant process was completed more than a year ago](https://resilientma.org)
    - Yearly progress report is required. There is a place on the online form to upload Attachment D. If regional application please include for all MVP-designated municipalities.

Shutesbury’s 2020 MVP Planning report identified four top hazards for the town due to climate change. Among these are heavy precipitation (flooding), and extreme storm events. The noted areas of concern in the report included Infrastructure and specifically the unpaved roads of which there are approximately 16 miles, half of the town’s total. As cited in the report, “participants expressed concern over how gravel roads are more susceptible to the effects of climate change, specifically increased intensity and frequency of heavy precipitation events”. The report identifies significant concern about stormwater degrading the town infrastructure which is costly to repair and a threat to public safety due to impeded transportation for residents and emergency vehicles. The report documented further that the result of pooling from stormwater on gravel roads has encouraged insect growth (primarily mosquitoes), basement flooding and mold issues, increased silt and sedimentation in drinking wells (town is 100% private drinking wells), and tree damage from flooded root systems.

With climate change, Shutesbury is already seeing greater storm water. The town’s unpaved (gravel) roads are increasingly experiencing washouts, mud, erosion, and flooding. Given the inconsistency of weather and temperature, the reliability of seasonable road conditions (winter freeze, spring thaw) is gone. As a rural community, Shutesbury relies on its roads for connectivity to other towns and all services for its residents and town operations, including emergency services.
This project seeks to find a balance between targeted interventions on high priority issues resulting from climate change and a comprehensive response that can achieve mid and long term mitigation success. Therefore the proposed project will address the impact of inland flooding and the need for better stormwater management as it relates to the town’s roadways. The work will be focused on two specific instances: 1) the juncture of driveways and roads; and 2) the juncture of paved and unpaved roads.

Given the intention of being both targeted and comprehensive to achieve both short-term and mid/long term results, the town is requesting a two year grant.

**Year 1: Assessment, Education and Regulatory Review.** The initial work in Year 1 will be to assess the town’s roadways where the two key stormwater dynamics have emerged and are anticipated to become worse. This assessment will be done by a qualified consultant. The deliverable will include a map and list of prioritized sites that need addressing. Prioritization will be based on identifying which projects are considered “project ready”, taking into account, the need or urgency of the situation, and the cost and affordability of the intervention. Shutesbury will require the consultant to only consider Natural Solutions and Green Infrastructure approach. A second deliverable will be a list of site-specific solutions for the identified locations.

As part of the scope of work, Shutesbury will require the consultant to incorporate relevant climate data that will inform the type, location and resiliency needed for each project location. Some of this information, if available, should include forecasting about anticipated frequency and volume of stormwater per event, and the frequency of storms throughout the year. Other information, if possible might include anticipated temperature since Nature-Based Solutions will need to be resilient in a changing ecosystem.

This process is anticipated to take approximately six months.

Following the development of a prioritized map, analysis and recommended solutions, the town will undertake two follow-up, Phase 2 activities during the second part of Year 1. Using the data and awareness gained from the assessment, the town will promote public and private engagement to adopt Natural Solutions and Green Infrastructure as the appropriate solution to road-related stormwater management. Educational activities for residents and town official will include educational forums and/or briefings, and the development of materials (hardcopy and digital) to support the adoption of Natural Solutions and Green Infrastructure for stormwater management related to roads and driveways.

In addition, the Select Board will initiate a regulatory review by the appropriate departments and committees including the Conservation Commission, Planning Board, Zoning Board of Appeals and Highway Department. This will review will focus on the town’s regulatory requirements, policies and practice, to ensure that adoption of Natural Solutions and Green Infrastructure for public and private roads and driveways is codified. This review will be tracked by the Select Board.
It is anticipated that Year 1 Phase 1 and Phase 2 activities will be easily completed by the end of the first year, allowing for spend down of allocated funds for the project year.

**Year 2: Prioritized and Targeted Implementation.** Using the prioritized analysis and map developed by the consultant’s assessment in Year 1, the town will spend the second year of the grant, implementing Natural Solutions and Green Infrastructure projects for the prioritized areas where driveways and paved/unpaved roads have or will create imminent stormwater management issues. Only high priority projects that have been identified as “project ready” (which will include an assessment of cost and affordability), will be implemented during project Year 2. Implementation will be achieved by contracting with firms with expertise and a demonstrated track record of using Natural Solutions and Green Infrastructure in rural towns similar to Shutesbury. The contractor will be assisted, as possible and appropriate, by the Shutesbury Highway Department.

This project will not focus on a specific site and does not include physical assets, so the RMAT Climate Resilience Design Standards Tool has not been needed. Attachment E is not included.

Shutesbury’s MVP Planning Grant process was completed in 2020. Our yearly progress report is included as Attachment D.
2. Timeline, Scope, and Budget (15 points)

- **Up to 4 points** for project scope. Please detail each task/step of the project here and include a summarized version in Attachment B. For each task, please identify if it is dependent on completion of another task.
- **Up to 4 points** for the project budget. Applicants will include budget numbers for each task and sub-task via Attachment B. There is a place to upload Attachment B as an Excel spreadsheet on the online form. The “optional budget data” tab on the spreadsheet is optional but can be used to calculate budget numbers to the extent helpful, identify assumed rates for project team time and municipal in-kind match, or justify high grant funding requests for specific tasks by providing greater detail. The Applicant may also use another format to provide greater detail on these items (e.g., a quote from a contractor or a separate spreadsheet). There is a spot to upload additional materials on the online form.¹
- **Up to 4 points** for a clear project timeline that can be completed within the specified contract period. For projects that require completion of Attachment C, please include major milestones, regulatory touchpoints and approvals, and information on how any project planning, design, and regulatory compliance efforts will be met during the grant period. Please ensure the timeline dates align with start and end dates for each task in Attachment B.

Summary of Scope and Timeline

**Pre-grant Preliminary Work**
June 2022: Research regarding appropriate consultants
June/July 2022: Development of RFP for consultant by Town Administrator

**Year 1: July 2022 to June 2023**
July/August 2022: Project start, depending on contracting with MVP by Select Board
July/August 2022: Release RFP for consultant
August 2022: Select Consultant
Sept. 2022: Work with consultant on development of assessment scope and approach
Oct-Nov 2022: Assessment undertaken
Dec 2022: Draft assessment including deliverables submitted to town for review and feedback
Jan. 2023: Finalize assessment and deliverables
Jan. 2023: Outreach for town officials convening
Feb. 2023: Outreach for community event
Feb. 2023: Convene town officials and departments
March. 2023: Develop educational materials for distribution
March - June 2023: Regulatory review
April 2023: Community education event; gather feedback and input
April 2023: Scope and RFPs developed for contractors to implement Year 2 projects
May- June 2023: Review and approve bids from contractors
June 2023: Review and report backs to Select Board
June 30, 2023 – conclude Year 1.

**Year 2: July 2023 to June 2024**
July/August 2023: Begin implementation of prioritized projects that were identified by the assessment using Nature-Based Solutions and Green Infrastructure. Establish order of implementation as agreed to by Select Board, Highway Department and Conservation Commission with consideration of “project readiness” and need.
Aug to June 2024: Implement all prioritized projects where driveways and paved/unpaved roads have or will create imminent stormwater management issues.
June 30, 2024: Completion of work. End of grant.

¹ Please ensure all dates for each task accurately reflect the timeline and align with the dates specified in Attachment B.
3. Nature-Based Solutions and Environmental Co-Benefits (16 Points)

- Up to **10 points** for the degree to which nature-based solutions (i.e., solutions that protect, restore, or manage ecological systems) are incorporated into the overall vision of this project and how the selected strategy/ies will help the community adapt to existing and projected impacts of climate change. More information about nature-based solutions can be found in the [MVP toolkit](#). Consider the following questions in your response:
  - **For Project Type 1**: Planning, Assessments, Capacity Building, and Regulatory Updates—How will this work “set the stage” for future implementation of nature-based solutions?

- Up to **6 points** for identifying and describing environmental co-benefits of the proposed project in the table below. For non-implementation projects, please identify how this work will “set the stage” for future co-benefits.

The town is fully committed to adopting these approaches for short, medium and long-term approaches to addressing climate related stormwater management for roads. 100% of the work will focus on Nature-Based solutions and Green Infrastructure – this is at the core of the project.

Specifically, the consultant that will conduct the assessment will be required to have demonstrated knowledge and experience with these approaches in regards to stormwater and roads. Furthermore, the consultant will be required to provide implementation recommendations that only use Nature-Based Solutions and Green Infrastructure. The assessment and its findings, including the recommended prioritized projects will therefore set the stage for implementing all the Year 2 work in a manner that uses Nature-Based Solutions and Green Infrastructure.

It is anticipated that some of the following Nature-Based solutions listed by MVP will be recommended and/or adopted: pervious surfaces, infiltration basins and trenches, soakways, rain gardens, planted channels, filter strips.

<table>
<thead>
<tr>
<th>Co-Benefit</th>
<th>Description of how the project will produce this environmental co-benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promotes Biodiversity (habitat restoration, creation, or enhancement)</td>
<td>☐</td>
</tr>
<tr>
<td>Restores/remediates Project Site</td>
<td>☐</td>
</tr>
<tr>
<td>Promotes Environmentally-Sustainable Development / Reduces Development in Climate Vulnerable Areas</td>
<td>☐</td>
</tr>
<tr>
<td>Improved Water Quality and/or Increased Groundwater Recharge</td>
<td>☒ By reducing the likelihood of sedimentation and silting, the quality and viability of private wells will be protected. 100% of residents are served by private drinking wells. Also by slowing water flow through effective stormwater management, not only will erosion be reduced by groundwater recharge will be enhanced.</td>
</tr>
<tr>
<td>Improved Air Quality</td>
<td>☐</td>
</tr>
</tbody>
</table>
Climate Mitigation (carbon sequestration, site-scale improvements for cooling, reduced energy use)  

Other Environmental Co-Benefit: Prevention of Infrastructure degradation, prevention of insect born disease  

NBS and GI will enable the town to address flooding and create effective stormwater management that will protect the integrity of its unpaved roads and will reduce the likely expansion of insect borne diseases by reducing pooling water.

Shutesbury does not have any EJ populations according to the EJ viewer. However, it does have notable Climate Vulnerable Populations. According to the MA Department of Public Health “Climate Enhanced Community Profile”, of Shutesbury’s population of 1,717 (2020 census), the climate vulnerable population is:

- Over 65 years of age: between 20.9% - 31.6%
- Over 65 and living alone: between 9.5% - 15.7%
- Any age and living alone: between 19.8% - 30.4%
- Living below poverty level: between 9.4% -18.1%

People who are older, living alone or lower income are much more vulnerable. They are likely to be more isolated during extreme weather events including heavy precipitation. In regards to this proposal, if the town’s roadways are not reliable, they will be more isolated from regular and
emergency services. Since there is no public transportation in Shutesbury, all residents are reliant on individual automobiles – even if they do not own a vehicle or are unable to drive (usually due to age).

Shutesbury’s climate vulnerable population is evenly distributed throughout the entire town. This means that people who are climate vulnerable, isolated, and reliant on private transportation, will suffer as the road infrastructure degrades due to stormwater and flooding.

By addressing both the short-term prioritized areas of concern and mid/long-term solutions to ensure road integrity and effective stormwater management, these climate vulnerable populations in town will experience broad and multiple community benefits. These include access to emergency services if needed, access to support services in town (Council on Aging) and in neighboring communities, and access to daily needs (food, health care, etc.). In addition, by reducing the likelihood of a growing insect population due to standing water, and the integrity of working private drinking wells (from lack of sedimentation and silting), public health for these populations will be protected.
5. Public Involvement and Community Engagement (12 points)

- To complete this section, include a narrative and fill out the matrix below. For guidance and an example showing how to fill out this section and suggested principal and assisting print, digital, and in-person strategies, see Attachment F. Please note that all tasks proposed here should be clearly incorporated into the required Scope/Budget spreadsheet (Attachment B).
  - 1 point for each principal strategy (up to 3 points total) as described in the narrative and table below. May have one per print, digital, and in-person category or distribute among those categories (e.g., two in-person, one print, no digital). The review team will consider the effectiveness of each identified strategy and inclusion in the project scope/budget when awarding points.
  - 0.5 points for each assisting strategy (up to 3 points total) as described in narrative and table below. May distribute among print, digital, and in-person categories as desired. The review team will consider the effectiveness of each identified strategy and inclusion in the project scope/budget when awarding points.
  - 1 point for each equitable engagement modifier (up to 4 points total) as described in narrative and table below. May distribute among print, digital, and in-person categories as desired. The review team will consider the effectiveness of each identified strategy and inclusion in the project scope/budget when awarding points.
  - Up to 2 points for how stakeholder feedback will be incorporated into the project and mechanism by which stakeholders will be notified of the results of the public involvement and community engagement process and the final project deliverables (see examples in Attachment F).

Public Involvement will primarily occur during the educational phase of Year 1. This will focus on sharing the findings of the assessment with residents and public officials and with information regarding Natural Solutions. This communication will occur in several key ways given the limitations and dynamics of our small rural town.

A tried and true engagement strategy that the town has used for sharing and collecting information with residents and town officials are public forums. During the education phase, at least one community-wide forum will be offered to share the findings of the assessment, gather feedback, and share the strategies for mitigation by implementing Natural Solutions and Green Infrastructure approaches. To assist with outreach for the event, assisting strategies will be used including “backpack delivery” to families of elementary school children – some of whom are likely to be lower income or have limited transportation. Notices will also be posted in two of the three gathering places in town – the library and the post office. It is worth noting that given its rural nature, Shutesbury has no stores.

A similar forum for public officials will be convened by the Select Board for town departments and committees. Not only will this convening be used to promote the understanding of Natural Solutions and Green Infrastructure but it will also serve to kick off discussion of the Phase 2, regulatory review process.

In addition, educational materials to support the adoption of Natural Solutions and Green Infrastructure will be developed in both hardcopy (brochures/flyers) and digitally (posted on town website). Specifically, this information will focus on how residents and town officials can address the issues of stormwater and roads using the promoted solutions in their own lives and work. Educational materials will be available in the library and town hall.

Public Involvement and Community Engagement Plan Table

<p>| [Insert project title] Public Involvement and Community Engagement Plan Table Summary (summarized version of narrative) |
|---|---|---|
| Print | Digital | In-Person |</p>
<table>
<thead>
<tr>
<th>Principal Strategies</th>
<th>Development of brochures and flyers for distribution to residents promoting the adoption of Natural Solutions and Green Infrastructure</th>
<th>Development of online information (town website) for use by residents and town officials promoting the adoption of Natural Solutions and Green Infrastructure</th>
<th>Community-wide educational and engagement form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assisting Strategies</td>
<td>Since some of the climate vulnerable households have elementary school children, brochures and flyers about the community event will be distributed via backpack from students to caretakers.</td>
<td>Notice of the event will be posted in the library and the post office, two of the three gathering places in town.</td>
<td></td>
</tr>
<tr>
<td>Equitable Engagement Modifiers</td>
<td>Although 97% of residents participate in the town-owned internet network, ShutesburyNet, we are aware that the older climate vulnerable populations are less likely to use online resources. The intentional use of written materials that can be distributed via the COA or the community aid network, Village Neighbors.</td>
<td>The Council on Aging and the community mutual aid network, Village Neighbors, will be engaged to help assist interested individuals in participating in the community forum but who are unable to physically travel to the elementary school (likely location). In addition, using the town’s fiber network and Zoom capability developed during COVID, the forum will be live streamed for viewing by people who cannot leave their house (currently isolated).</td>
<td></td>
</tr>
</tbody>
</table>

How community feedback will be incorporated into project and mechanism by which results will be shared:

**Community feedback will be incorporated in several ways:**

- The assessment findings will be reported out at the community event and feedback on the approaches will be noted by the consultant and the Select Board for any implementation in Year 2. Additionally, any other locations that might have been missed by the consultant will be inventoried for future intervention.
- Since Natural Solutions and Green Infrastructure will be new to Shutesbury, community feedback on strategies to enhance the likelihood of implementation by residents will be noted and shared – either by the Town Administrator or the appropriate committee.
- The input of climate vulnerable populations will be of particular relevance in regards to the implementation of these new approaches.
6. Project Transferability, Measurement of Success, and Maintenance (8 points)

- Up to 4 points for projects that serve as a demonstration project and are transferable to other communities (i.e., innovative projects that provide deliverables that can be easily adopted by other communities or outline processes that will streamline other similar projects). Please outline what these deliverables are and how they will be shared with other communities.

- Up to 2 points for how project success will be measured and monitored. Please provide outcomes that can be linked to the project (e.g., reduction in flooding, increase in tree canopy cover, reduced risk of sewer overflows) and any metrics that the applicant will be able to track to indicate whether or not the project is accomplishing these outcomes over time. The review team is not looking for general statements around the completion of tasks in the scope of work (e.g., “the project is successful if we complete it on time”).

- Up to 2 points for clear description of plans for how any future maintenance needs or updates to the proposed project would be addressed to ensure the project’s goals continue in the long-term.
  - For Project Type 1: Planning, Assessments, Capacity Building, and Regulatory Updates—
    - Describe how the project deliverables will be utilized to continue local resilience work (e.g., regular meetings to track identified plan actions, list anticipated town meeting dates and/or plan to approve updated regulations, how data collection or modeling will support current/scheduled local efforts, etc.)
    - If applicable, how will the plan, assessment, or regulation be updated in the future to make sure it stays current?

It is our understanding that the use of Nature-Based Solutions and Green Infrastructure is already being used throughout the Commonwealth. Therefore Shutesbury does not anticipate being innovative or a leader in this regard. However, if in the context of small rural town adoption of these approaches, Shutesbury is a leader, we are willing and able to share our experience with similar towns in the state that are interested in learning about our experience.

Year 1 monitoring will be straightforward and therefore easily tracked by the Select Board. This will include the completion and submission of deliverables required from the consultant assessment, convening of a community educational event, and the convening of a town department and committee forum. Similarly, the Select Board will ask for and track the regulatory review that will be conducted at the end of Year 1 by the appropriate departments and committees. Year 2 monitoring will be monitored and tracked by both the town Highway Department and the Conservation Committee as part of their respective charges.

In regards to maintenance, it is the town’s full intent to use the assessment from Year 1 to enable implementation of prioritized projects in Year 2 but to create a “to do” list of other identified locations that can be addressed in the coming years. Key to implementation is the expected adoption of Nature Based Solutions and Green Infrastructure by the town’s highway department (which will be experiencing a leadership shift due to retirement in 2022) which will be charged with either implementing non-prioritized projects or hiring firms to do the work based on future highway grants.
7. **Need for Financial Assistance (6 points)**

- **Up to 2 points** for financial need as demonstrated through Applicant narrative, as described below:
  - Demonstration that the municipal budget cannot accommodate this project, including specific examples beyond regular budgetary constraints.
  - Demonstration that other grant programs were considered, and it was determined that MVP was the best programmatic fit.
  - Demonstration that MVP funding would clearly address a funding gap that would make an otherwise robust project unlikely to be implemented.

Two years ago, Shutesbury’s tax rate was $24.04/1000. The significance of this number is that when and if we reach $25/1,000 tax rate the Town of Shutesbury will not be able to raise taxes, additional funds, for our budget to meet any or all necessary expenses. We have been struggling for the last five years to minimize the annual increase to the budget. Our excess levy capacity has increased from $32,691 in FY17 to $568,578 in FY23. That means we have capacity from increased budgets but due to the constraints of state prop 2 ½, we cannot access that capacity. In conclusion, accommodating additional projects within the budget is very difficult.

One benefit of the MVP grant program is it has an unusual aspect of supporting public and private infrastructure. The most problematic network of roadways in town are the private roads surrounding Lake Wyola. This grant allows us to address the issue by identifying problems and educating residents that live on public and private roads. For this reason, the MVP grant is the best programmatic fit for our project.

The Town of Shutesbury’s highway department has a budget of $280,012. This is a bare bones budget. There are no funds for engineering, or consultants in this budget. It covers a crew of three people with additional support for winter months. We rely on chapter 90 state funds for all paving projects. We have recently funded a large culvert repair utilizing a municipal small bridge grant, adding hundreds of thousands of dollars of our reserves funds and borrowing to achieve it. Without the resources of MVP grant we would not be able to consider taking on this project.
8. Project Feasibility, Support, and Management (6 points)

- Up to 2 points for a description of the project team’s technical, financial, and management capacity.

- Up to 2 points for letters of support from landowner, public, and/or community partners. Applications with 3+ letters of support from diverse groups (e.g., community-based organizations, local businesses, nonprofits, neighborhood groups, etc.) and a letter of support from landowner (if project is to take place on non-municipal land) will be scored highest. There is a place on the online form to upload support letters that have been combined into a single PDF document. Support letters should be submitted in this fashion and not sent separately.

- Up to 2 points for good standing in the MVP program – based on timely submittal of progress reports, lack of project extensions, timely correspondence, and compliance with program guidelines, to be completed by MVP program team.

The project team will be headed by the Shutesbury Town Administrator who has served the town for over fourteen years as Chair of the Select Board, and Chair of the Finance Committee and thirteen years as Town Administrator. Her deep knowledge of a range of water issues and road concerns will be an asset to the consultant doing the assessment. In addition, the consultant will be supported with local knowledge by the Conservation Commission and the Highway Department.

As a small rural town, Shutesbury does not have a commercial and private sector. There are no retail stores and most businesses are individuals providing consulting services. Similarly, there is only one nonprofit - Village Neighbors – that serves in a mutual aid capacity but is volunteer run and has limited administrative capacity. Most of the needs of the town are met either through the work of town officials or from the vast group of resident volunteers serving on town committees. As a result, there are limited opportunities to get third-party letters of support.

It is the town’s understanding that it is in good standing with the MVP Program.