



ENVIRONMENTAL SUSTAINABILITY COMMITTEE

Tuesday, October 28, 2019

7:00 P.M.

Town Hall, 1st Floor Conference Room

COMMITTEE MEMBERS PRESENT:
Rob Darnell, Chair
Mary Hajjar, Vice Chair
Robin Greenberg, Secretary
Myra Sessions
Jennifer Kallay
Julie Smith-Galvin, Town Council Rep
Joe Conway, DPW Rep

COMMITTEE MEMBERS ABSENT:
Suzy Veilleux, School Committee rep
Addie Festel, Student Liaison
Cameron Sweeney, Student Liaison
Liz Sheridan, Student Liaison
Sophie Brown, Student Liaison

----- TOPICS OF DISCUSSION -----

Call to Order The meeting was called to order at 7:06 p.m.

Public Participation No comments

MVP Action Grant Proposal Committee discussed submitting a Municipal Vulnerability Preparedness FY20 MVP Action Grant application in response to Executive Office of Energy of Environmental Affairs (EOEEA) Request for Responses (RFS) ENV 20 MVP 02. The Committee reviewed evaluation criteria and scoring for a proposal requested funds to complete a town greenhouse gas emission inventory. Committee saw the proposed project eligible because Wakefield's MVP program noted the need for greenhouse gas emission inventory. This will be one of several grants being considered by the town to be submitted which is allowed under the RSS guidelines. Projects will be managed by DPW with assistance by ESC. Wakefield Town Council was notified that ESC was considering applying for the grant at last night's TC meeting and showed support for it. The total proposed budget for greenhouse gas emission inventory study was \$100,000. The goal of the study is to help ESC and the town develop actionable items that would reduce greenhouse emission in town. As part of the project, stakeholder engagement will be modeled after the Envision Wakefield and Envision Wakefield Resilient outreach events and will include efforts to prioritize action items learned from the inventory by Wakefield citizen, town, and businesses. With the application, ESC members will request written support for submission of grant application by town boards, e.g. the Town Council, Advisory Board of DPW, WMGLD, ESC, and ConComm, school facility staff, and potential community groups like PTOs and Sustainable Wakefield.

Action Items:
J. Conway will request Claire Moss to draft the letters while R. Darnell and J. Smith-Galvin will contact the boards.
M. Session work on formatting based on J. Kallay's draft of the application.

J. Smith-Glavin will write the marketing and stackholder sections of the application.

J. Kallay will write the scope of work/budget sections.

M. Hajjar will proofreading package, that she will receive by Nov 9th. She will return with comments by Nov 10th.

R.Greenberg will review application for completeness against the RFR.

Schedule: Submit to town by Nov 12th for final review to be submitted to state by Nov 14th 2pm.

M. Sessions made a motion to submit a grant application in response to the EOEEA RFS and to have ESC have a role in the project. R. Darnell seconded.

All approved.

Next Meeting

The next regular Environmental Sustainability Committee meeting is November 14, 2019, at 7pm at Town Hall.

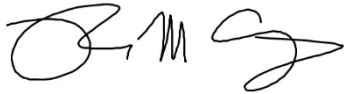
Committee

Meeting

Adjournment

R. Greenberg motioned to adjourn seconded M. Sessions. Motion passed unanimously. Meeting adjourned at 8:33 pm.

Respectfully submitted,



Robin Greenberg, Secretary

Attachments: RSP ENV 20 MVP 02

EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS

Kathleen Theoharides, Secretary

Grant Announcement

Commbuys Bid # BD-20-1042-ENV-ENV01-44367

Request for Responses (RFR) ENV 20 MVP 02

Dated: October 3, 2019

MUNICIPAL VULNERABILITY PREPAREDNESS GRANT PROGRAM (MVP)

FY 20 MVP ACTION GRANT

1. Grant Opportunity Summary, Performance, & Contract Specifications

- A. PROPOSALS SOUGHT FOR:** Financial assistance for municipalities who have received designation from the Executive Office of Energy and Environmental Affairs (EEA) as a Climate Change Municipal Vulnerability Preparedness (MVP) Community (“MVP Community”) to implement priority adaptation actions identified through the MVP planning process, or similar climate change vulnerability assessment and action planning that has led to MVP designation. Successful proposed projects will enhance resilience and increase community preparedness for future climate conditions.
- B. OVERVIEW AND GOALS:** The Municipal Vulnerability Preparedness Grant Program supports Executive Order 569, “Establishing an Integrated Climate Change Strategy for the Commonwealth,” and Chapter 209 of the Acts of 2018, “An Act Promoting Climate Change Adaptation, Environmental and Natural Resource Protection, and Investments in Recreational Assets and Opportunities,” by providing funding to cities and towns to complete and implement community-driven climate change vulnerability assessments and priority action plans. The MVP program is split into Planning Grants, which result in a completed CRB process and MVP report, leading to designation as an “MVP Community;” and MVP Action Grants (outlined through this opportunity), which seek to implement key priorities and projects identified through the MVP Planning Grants. Grants are available for a range of climate change adaptation strategies to reduce risk from and build resilience to climate change impacts, including temperature changes, extreme weather, sea level rise, coastal and inland flooding, changes in precipitation, and other impacts.

- C. ELIGIBLE PROJECTS:** Funding is to advance priority climate adaptation actions identified by “MVP Communities” to address climate change impacts resulting from extreme weather, sea level rise, inland and coastal flooding, severe heat, and other climate impacts. (See further detail on eligible projects in **Section 2A & 2B**). Projects that utilize nature-based solutions (i.e., strategies that rely on ecological processes to achieve climate resilience objectives), and meaningfully engage and address threats faced by vulnerable populations or Environmental Justice communities will receive higher scores.
- D. APPLICATION DEADLINE:** Applications are due by **2:00 p.m. Thursday, November 14, 2019**. (See further detail on deadlines and the grant program calendar in **Section 4**.)
- E. TOTAL ANTICIPATED DURATION OF CONTRACT(S):** The contract period will begin on the date the parties execute the contract or such other date stated on the standard contract form. Contracts issued pursuant to this BID/RFR must expend 100% of costs associated with the approved project, including awarded grant funds and match contributions, on or before the contract end date of **June 30, 2020 or June 30, 2021** (depending on EEA’s funding decisions), in order to be eligible for the total grant reimbursement amount. **Proposals must include a clear breakdown of tasks and deliverables by fiscal year (i.e., specifically what tasks will be accomplished by June 30, 2020 [FY20] and then by June 30, 2021[FY21]). Projects that can be fully completed in FY20 or that allocate most requested grant funds towards tasks in FY20 will be prioritized for funding. For proposals that span two fiscal years, most *match* funds should be dedicated to tasks in FY21 (for more on match requirements see Section 1H). If EEA is unable to fund the FY21 grant request portion of the Applicant’s proposal under this BID/RFR, we encourage resubmission for FY21 funds in the next MVP Action Grant funding round.**

All deliverables should be submitted following the timeline in the respondent’s proposed scope/budget. Successful Applicants will be required to submit monthly progress reports to their specified MVP Regional Coordinator. Applicants must establish a realistic project timeline and are encouraged to consider phasing complex projects to ensure on-time delivery.

- F. FUNDING AVAILABILITY:** Applicants may request up to \$2,000,000 in funding and awards are expected to range from \$25,000-\$2,000,000. Regional proposals may request up to \$5,000,000. Exceptions may be made at EEA’s discretion.

Funding will be distributed by reimbursement upon completion of tasks and submission of invoices. Costs eligible for reimbursement include all approved project costs incurred between the selected Applicant’s contract execution date and either June

30, 2020 or June 30, 2021. (See **Section 1J** for details on required reporting documentation.)

All contracts are subject to available funding, whether through the appropriations or capital planning process. If available funding ceases for any reason, a contract shall be deemed under suspension and contract performance must halt. A contractor will not be entitled to compensation for any performance provided during the period of contract suspension. EEA may lift the suspension if available funding is received. In the absence of foreseeable available funding, EEA may terminate the contract.

G. ELIGIBLE APPLICANTS: This solicitation is open to municipalities who have completed the CRB process and received “MVP Community” designation by EEA. For regional applicants, municipalities should work to submit one application together and one municipality should be prepared to be the fiscal agent for the award. Applications from regional partnerships of multiple municipalities are eligible provided that the lead applicant is an MVP designated community.

H. MATCH REQUIREMENT: Applicants must provide at least **25% of the total project cost**. The 25% match may be cash or in-kind contributions or a combination of the two provided by the Applicant and direct project partners including federal or private foundation grants used to complete part of the total project. Any Applicant and direct project partner funding that is not currently being used to match other state government supported programs can be included as match. All local match must be directly related to the proposed project and tasks and documentation will be necessary to substantiate this. Costs incurred prior to execution of the contract, including application preparation costs, will not be considered as part of the match requirement. Cash match spending details must be provided. Cash contributions are those funds that will be used to purchase goods or services associated with the project. In-kind contributions represent the value of non-cash contributions provided by the Applicant and project partners. If funding is being requested for FY20 and FY21, most match funds should be allocated to tasks to be completed in FY21.

Applicants must include a signed statement from the authorized signatory of the municipality acknowledging and accepting the following:

- The municipality entity commits to match 25% of total project cost using cash or in-kind contributions (or a combination of the two) and acknowledges that the funding under this grant will be provided on a reimbursement basis.
- All matching funds provided by the Applicant or direct project partners have been approved and/or appropriated (or are in the process of being approved).

- I. PROJECT TERMS:** A final contract is subject to successful negotiation of a final scope of services. Please note that EEA does not guarantee that any contracts may result from this BID/RFR or that any particular funding level will be awarded. The awarded contracts will be reviewed during their course and, upon request by the Contractor, may be extended or otherwise amended at the sole discretion of EEA for a period appropriate to the circumstances. Requests for extension are strongly discouraged and will be considered only under extraordinary circumstances. Any extensions granted will not necessarily change, or increase, the monetary value of the contract.

Changes in Scope

Any additions, deletions or other changes to the scope must be approved by EEA prior to commencement of such activities.

- J. REPORTING:** If selected for an award, the Applicant is required to submit monthly progress updates by the 30th of each month (template to be provided by EEA upon contract execution), a final project report, and a brief case study communicating lessons learned along with project photos. Other deliverables that are project specific will be identified at the time of contract award and project scoping. The Applicant will be required to be in communication with their MVP Regional Coordinator (RC) throughout the course of the project and submit all reporting documentation through the RC. (See Contact Information in **Section 1N**).
- K. DELIVERABLES, OWNERSHIP, AND CREDIT DUE:** All materials, software, maps, reports, and other products produced through the grant program shall be considered in the public domain and thus available at the cost of production. All materials created through this opportunity and as a result of this award should credit the Executive Office of Energy and Environmental Affairs Municipal Vulnerability Preparedness (MVP) program.
- L. INVOICING & PAYMENTS:** The payment procedure for projects is reimbursement for costs incurred for the project during the contractual period as tasks are completed and invoiced. This information should be included in monthly progress updates to EEA. Only those tasks/deliverables completed after contract execution and identified in the scope of work are eligible for reimbursement. No payments shall be made for Massachusetts sales tax.
- M. REGULATIONS, STATUTES, OR AUTHORIZATION GOVERNING THIS GRANT PROGRAM:**

This BID/RFR is issued according to bond authorization language in Chapter 209 of the Acts of 2018, and other authorities, including Executive Order 569.

- N. CONTACT INFORMATION:**

Kara Runsten, Municipal Vulnerability Preparedness Manager
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114
kara.runsten@mass.gov
617-626-7826

MVP Regional Coordinator Contact Information:

See **Attachment H** for a map

- **Central:** Hillary King; hillary.king@mass.gov; 508-849-4016
- **Greater Boston:** Carolyn Meklenburg; carolyn.meklenburg@mass.gov; 617-626-7825
- **Northeast and Acting Berkshires & Hilltowns:** Michelle Rowden; michelle.rowden@mass.gov; 978-242-1358
- **Southeast and Acting Greater Connecticut River Valley:** Courtney Rocha; courtney.rocha@mass.gov; 508-946-2837

Two more regional coordinators will be hired in the coming months for the Greater Connecticut River Valley and Berkshires & Hilltowns regions. Please contact your “acting” regional coordinator above for inquiries related to those regions until the remaining regional coordinators are hired.

2. Project Eligibility

A. OVERVIEW OF ELIGIBLE PROJECTS: Proposals must address one (or more) priority implementation action(s) identified and documented within the municipality's MVP report and use best available techniques and climate projections. Changes to MVP plan priority actions must be documented in question 2 of the MVP progress report and involve the full core team (**Attachment F**). If the municipality created a subsequent climate resilience plan that built on the MVP planning process, Applicants will have the chance to justify applying for funding for priority actions and document use of climate change data identified in such a plan through the application in **Attachment A**.

Proposals that do not directly cite and respond to climate change data that can be found at Resilientma.org will not be considered. Proposals may also cite local-level climate change vulnerability studies. Proposals may include a range of climate change adaptation actions including, but not limited to, advanced vulnerability assessments, education and outreach, including to [Environmental Justice communities](#), changes to local policies, plans, regulations, or management strategies, redesigns and retrofits, energy resilience, nature-based solutions designed to increase resiliency within the community to climate change hazards like extreme heat and flooding, ecological restoration and habitat management, safe toxics use, land conservation to achieve resiliency objectives, and subsidized low income housing resiliency strategies. (See full list of eligible project types with descriptions below in **Section 2B**.) Proposals are encouraged to:

- Consider and/or illustrate place-specific value of and utilize nature-based solutions. Nature-based solutions are strategies that rely on ecological processes to achieve climate resilience objectives. They use natural systems, mimic natural processes, or work in tandem with traditional approaches to address natural hazards like flooding, erosion, drought, and heat islands;
- Meaningfully engage and address threats faced by vulnerable populations and/or Environmental Justice communities;
- Pilot a new approach or design practice from which other MVP communities and the state can learn. Projects that seek to address critical issues with widespread relevance across many communities are encouraged;
- Illustrate potential to achieve substantive community co-benefits, particularly in Environmental Justice or vulnerable communities;

- Utilize regional solutions toward regional benefit. Applications from regional partnerships of multiple municipalities are eligible and encouraged, provided that the lead applicant is an MVP-designated community; and/or,
- Employ best stakeholder and community engagement practice, such as
 - Partnering with community organizations as part of the project team;
 - Identifying opportunities to reach vulnerable communities beyond a traditional public meeting;
 - Ensuring project materials are translated;
 - Providing childcare and scheduling meetings with the public outside of traditional work hours; and,
 - Identifying and implementing engagement strategies to reach vulnerable populations.

B. ELIGIBLE PROJECT TYPES: Proposals must address one (or more) priority implementation action(s) identified and documented within the municipality's MVP report and use best available techniques and climate change projections. All applicants are required to provide significant opportunities for community engagement in project tasks and communicate lessons learned through a brief project case study submitted to EEA. Eligible project types are listed below. Examples of projects funded by MVP action grants (organized by project type) are included in **Attachment E**.

1. ***Detailed Vulnerability and Risk Assessment and Further Planning*** – Following on the overall MVP assessment and report communities may seek to conduct a more in-depth vulnerability or risk assessment of a particular sector, location, or other aspect of the municipality. Projects that map and evaluate vulnerable community facilities, natural resources and/or infrastructure using climate projections are eligible. Projects that identify risk and propose strategies for improving resiliency of vulnerable populations and Environmental Justice neighborhoods as a means of addressing health, income, and racial equity are encouraged. Projects that seek to develop vulnerability assessments and resiliency plans for specific sectors, resources or other aspects of the municipality, such as agriculture, business, or recreation are eligible.
2. ***Community Outreach and Education*** – Eligible projects include those that increase public understanding of climate change impacts within and beyond the community and foster effective partnerships, especially with Environmental Justice communities. Creative communication products that provide ongoing benefits and that can be adopted by other communities are strongly encouraged. Translation of outreach materials to include non-English speaking residents,

especially in Environmental Justice neighborhoods is encouraged. Municipalities may also apply for funding to partner with non-MVP communities to increase climate change literacy and encourage new communities to participate in the MVP program, however the lead applicant must be MVP designated. These types of community to community mentorship programs are strongly encouraged. A specific focus on engaging, educating, and empowering underserved communities, such as Environmental Justice communities, in the planning and implementation process will receive credit as shown in **Attachment G: MVP Action Grant Program Scoring Criteria**.

3. ***Local Bylaws, Ordinances, Plans, and Other Management Measures*** – Projects to develop, amend, and implement local ordinances, bylaws, standards, plans, and other management measures to reduce risk and damages from extreme weather, heat, flooding and other climate change impacts are eligible. Projects that seek to develop, amend and implement measures to allow and facilitate the use of nature-based solutions such as green infrastructure, low-impact development, and other natural resource-focused measures are encouraged. This may include updates to plans, such as local hazard mitigation plans, open space and recreation plans, or emergency response plans. Projects that result in formal adoption of new or amended bylaws or ordinances are strongly encouraged.
4. ***Redesigns and Retrofits*** – Engineering and construction projects to redesign, plan, or retrofit vulnerable community facilities and infrastructure (e.g., wastewater treatment plants, culverts, and critical municipal roadways/evacuation routes) to function over the life of the infrastructure given projected climate change impacts, including more intense precipitation, extreme heat, and coastal and inland flooding are eligible. Efforts to elevate and flood-proof infrastructure MUST exceed minimum National Flood Insurance Program regulations related to elevation, enclosures, flood proofing, basements, anchoring, and other requirements (<https://www.fema.gov/national-flood-insurance-program-policy-index>). Projects that evaluate and implement removal or relocation of facilities and infrastructure outside of hazardous areas, where feasible, are strongly encouraged. Projects that identify and seek to utilize appropriate nature-based solutions and incorporate other new strategies and innovative design principles to reduce future risk are strongly encouraged and will be scored favorably. Projects that replace impervious surfaces such as unused parking lots and abandoned, developed areas with new trees, native groundcovers and plantings, and greenspace to reduce flooding and heat island

impacts are encouraged. All projects must be designed with explicit consideration of the criticality of the asset, the anticipated life span and maintenance needs of the asset, and the relevant statewide climate change projections, where applicable, or they will not be considered for funding.

5. ***Energy Resilience Strategies*** – Eligible facilities are those for which the loss of electrical and/or heating and cooling services would result in disruption of critical functionalities that would put the health and safety of the surrounding community at risk. Critical facility types could include water and waste-water treatment facilities, emergency personnel dispatch, facilities which support municipal emergency operations, health services facilities, perishable grocery and pharmaceutical distribution facilities, and fuel facilities. Proposed energy resilience projects shall incorporate clean energy generation as defined in the Alternative Portfolio Standard (APS) and Renewable Portfolio Standard (RPS) (e.g., solar, wind, Combined Heat and Power, renewable thermal, fuel cell, etc.), and be paired with resilience enabling technologies such as energy storage, energy management systems, blackstart and islanding technology, and microgrids. Accepted projects must: use eligible clean technologies; be sited at an eligible facility; be able to operate in parallel with the energized grid as well as black start island and operate in isolation from the grid during a broader grid outage; identify and utilize all available incentive revenue streams; and meet utility interconnection strategy guidelines. Accepted projects may include energy efficiency and demand reduction measures and demonstrate strategic electric isolation of critical loads from non-critical loads to effectively extend resilience capability. Note that diesel generators are not eligible for funding.
6. ***Chemical Safety and Climate Vulnerabilities*** – Projects that seek to engage the business and manufacturing community through assistance or training on identifying vulnerabilities to chemical releases due to severe weather events, reducing use of toxic or hazardous chemicals, outreach to improve operations and maintenance procedures to prevent chemical releases and accidents, outreach to improve emergency and contingency planning, and/or identifying existing contaminated sites that pose chemical dispersion risks during flood events are eligible. Activities may include outreach and engagement with facilities, interactive community mapping, or trainings and assistance on business contingency planning.
7. ***Nature-Based Flood Protection, Drought Mitigation, Water Quality, and Water Infiltration Techniques*** – Projects that utilize natural resources and pervious surfaces to manage coastal and inland flooding, erosion, and other

storm damage, such as stormwater wetlands (i.e., constructed wetlands for pollutant removal) and bio-retention systems, and other Smart Growth and Low Impact Development techniques are eligible. Proposals that evaluate project suitability, design, permit, construct, and/or monitor non-structural approaches that enhance or create natural systems to provide increased coastal and riverine shoreline stabilization and flood control approaches will be favored. Projects that improve water quality, implement water conservation measures, increase infiltration, and reduce exposure to drought are also strongly encouraged. Projects are encouraged to implement farm-healthy soil techniques to improve fertility, drought resistance, and enhance carbon storage and forest management practices designed to enhance the resilience of forests to climate impacts (such as increased invasive species, wildfire risk and storm damage). Projects that replace impervious surfaces such as unused parking lots and abandoned developed areas with parks, including new trees, native groundcovers and plantings, community gardens, and greenspace to reduce flooding and heat island impacts are encouraged. Land acquisitions necessary to implement green infrastructure projects are eligible through this program and other EEA programs. More information on other EEA programs related to land acquisition and green infrastructure:

- <https://www.mass.gov/grant-programs-offered-by-the-division-of-conservation-services>
- <https://www.mass.gov/orgs/division-of-ecological-restoration/services>
- <https://www.mass.gov/how-to/culvert-replacement-municipal-assistance-grant-program>

8. ***Nature-Based, Infrastructure and Technology Solutions to Reduce Vulnerability to Extreme Heat and Poor Air Quality*** – Green infrastructure projects that utilize natural resources, vegetation, and pervious surface to reduce ambient temperatures, provide shade, increase evapotranspiration, improve local air quality, and otherwise provide cooling services within the municipality are encouraged. Urban tree planting programs in partnership with DCR's Greening the Gateway City Program or that meet the standards of this program are encouraged. Removal of unneeded parking lots to build parks, urban forests and greenspace are encouraged. Other resources to reduce vulnerability to extreme heat and poor air quality such as traditional infrastructure projects, or new technologies such as cooling centers, public water features, or emergency alert systems may be considered under this category.

9. ***Nature-Based Solutions to Reduce Vulnerability to other Climate Change Impacts*** – Nature-based projects that address other impacts of climate change such as extreme weather, damaging wind and power outages, increased incidence of pests and vector-borne illnesses and other public health issues are encouraged. Projects in this category should seek to address priority climate-change related hazards identified through the MVP planning process not listed in the 2 above categories.
10. ***Acquisition of Land to Achieve a Resiliency Objective*** – Land purchases are eligible for grant funding if the parcel has been identified through a climate vulnerability assessment as an appropriate location for a specific eligible adaptation activity to occur, such as accommodating an infrastructure or facility redesign or retrofit project, providing natural flood storage to reduce downstream flooding, or removal of pavement and planting of trees to reduce flooding and heat island effects. Grants may also be used to buy land on which a specific nature-based solution, such as a constructed wetland, bio-retention system, or living shoreline, will be employed. Also eligible is the acquisition of land to prevent future growth in a vulnerable location. Projects that combine adaptation measures with another public purpose are favored, such as a community park that is designed to store and treat stormwater in response to more frequent and intense storms. Finally, land acquired with funds granted by this program must be owned by the municipality. If the acquisition combines a resilience measure with the provision of open space, the land must be permanently protected under Art. 97 of the Amendments to the MA Constitution, such as through the execution of a conservation restriction meeting G.L. Chapter 184, Section 32 or dedication to natural resources, conservation, or park purposes in a Town Meeting or City Council vote and in the recorded deed. Land acquisition project applications must be accompanied by an appraisal that meets EEA standards to justify the grant request. Land cannot be purchased by the municipality prior to obtaining an approved contract from EEA.
11. ***Ecological Restoration and Habitat Management to Increase Resiliency*** – Projects that repair or improve natural systems for community and ecosystem adaptation, such as right-sizing culverts, dam removal, controlled burns, soil stabilization, invasive species removal and native re-vegetation, prevention and recovery from forest pest invasions in urban and rural forests, restoration of coastal wetlands, restoration of floodplain functions, and other natural resource management projects are eligible through this grant opportunity. Projects that support adaptation goals, while reducing greenhouse gas emissions (e.g., through bio-sequestration) are encouraged.

12. *Subsidized Low Income Housing Resilience Strategies* – Investments in resiliency measures for affordable housing to protect vulnerable populations that may not have the resources to recover from an extreme climate event are eligible, recognizing that those that own or are, living in these properties may not have the ability to finance these investments without public subsidy. Eligible facilities include any that serve an income-restricted population up to 80% of Area Median Income; including but not limited to state and federal public housing, project-based section-8, MRVP and Section 8 Mobile Vouchers, Low-Income Housing Tax Credit properties, and those supported by grant funding or soft debt from the Department of Housing & Community Development, Mass Housing Partnership, or MassHousing. Eligible uses of funds are for building improvements, site improvements, and planning efforts that enhance the adaptive capacity of the low-income housing to continue to provide a safe environment to its residents during extreme weather events associated with more concentrated precipitation, higher temperatures, stronger storms, and rising sea levels. Applicants should document how they are leveraging existing funding sources and programs like Solar Massachusetts Renewable Target (SMART), Alternative Energy Portfolio Standards (APS), and Mass Save for eligible measures.

13. *Mosquito Control Districts* – Projects to reduce the risk to public health from mosquito-borne illness and to increase mosquito surveillance and control capacity by incentivizing municipalities not in an organized mosquito control project or district to: 1) collaborate with other regional municipalities to petition the State Reclamation and Mosquito Control Board to form a new mosquito control district under M.G.L. Chapter 252 or establish a district through enabling legislation (a minimum of two municipalities are required to form a district), or 2) join an existing mosquito control project/district through an affirmative vote at a Town meeting. Municipalities currently in an organized mosquito control project or district may also seek funding to support new or proactive mosquito control measures that are not currently funded. Eligible activities include providing community engagement and outreach to regional communities to form a new mosquito control district and to residents on the importance of mosquito surveillance, control, and education on personal protection from mosquito-borne illness; initial assessments of costs for a community to join an existing mosquito control district; costs associated with the formation of a new mosquito control district's operations including but not limited to surveillance, control equipment, and supplies; or any other proactive mosquito control measure.

- C. LAND OWNERSHIP AND PROPERTY OWNER SUPPORT:** Projects may be completed on lands held by municipal, state, or federal agencies or government bodies, lands held by non-profit conservation organizations, or lands held privately with consent of private owners. To be eligible for an Action Grant, applications that propose (or will eventually result in) any physical work on one or more properties must be accompanied by a letter signed by the property owner(s) demonstrating their commitment to pursue the project's stated restoration goals and actions. Alternatively, an application may be eligible for an Action Grant if it includes evidence of a pending sale of the project site to an entity and includes a letter signed by that entity demonstrating a commitment to pursue the project's stated restoration goals and actions.

Applications for funding must include lands that are or will be designated within the first funding period (as subject to covenants) that shall assure the continued presence and effectiveness of such projects, such as a conservation restriction, in accordance with G.L. Chapter 184, Section 32, or for the expected life of shorter term projects. The use of such funds by municipal governmental bodies on lands held by nonprofit conservation organizations or on private lands shall require the affirmative vote of a majority of all the members of the city council in a city having a Plan D or Plan E charter, the vote of the city council in a city not having such a charter, subject to the charter of such a city, and the majority vote of the selectboard in a town prior to receiving funding for the project. At the time of project execution, the grantee must have any required legal access.

Commitment letters from property owners must indicate clear support for the details of the application, including the identified partner roles and responsibilities.

- D. GUIDANCE ON IMPLEMENTATION PHASES FOR SPECIFIC PROJECT TYPE PROPOSALS:** For infrastructure redesigns and retrofits, implementation of nature-based solutions, land acquisition, or ecological restoration projects, proposals must address one (or more) of the following stages of implementation:

- *Planning, feasibility assessment, and siting* – Project may propose work to identify and assess alternative strategies and determine the most suitable strategy for a particular area or site. Includes delineation of wetland or other natural resource areas (e.g., salt marsh, coastal bank, bordering vegetated wetland, etc.), evaluation of climate change impacts and other natural hazards present at the site, and efforts to analyze and assess site conditions.

- *Design* – The project may propose work to engineer and design the project, including plans for site preparation and installation as well as project monitoring for effectiveness. Design work should build on completed planning, feasibility assessment, and siting analysis.
- *Permitting* – The project may propose work to prepare and file federal, state, and local permit applications for proposed activities. Permits do not have to be obtained as part of the scope of work, unless also submitted with construction and installation proposals.
- *Construction, installation, and monitoring* – The project may propose work to prepare the project site, construct and install eligible technique(s), develop appropriate monitoring protocols, and evaluate projects to assess project efficacy. Proposals for project construction should demonstrate that planning, feasibility assessment, siting analysis, and design have been completed, and that all permits are secured. Proposals should indicate whether the project is related to any regulation, permit or enforcement action. In table format, list any regulations, permits, or enforcement actions that apply, including federal administrative orders, MA administrative orders, MA order of non-compliance, federal permits, MA permits, federal regulations, and MA regulations. List the type of action, subject matter, reference number, appropriate section/page related to this project and deadlines for compliance. Commitment to monitoring the project beyond the contract period is encouraged.

Note: Due to the short duration of the contract period, Applicants are strongly encouraged to focus on one or two stages of complex projects. It is highly unlikely that most projects from planning to construction could be completed within the contract period.

E. GUIDANCE ON OUTREACH AND ENGAGEMENT FOR ALL PROJECT PROPOSALS: Across all project types, projects that draw from and illustrate best practices around outreach and engagement with marginalized and/or Environmental Justice communities may receive higher scores. For all project types, proposals should draw upon outreach and engagement best practices, including:

- Partnership with community organizations (community advocacy, environmental, or other organizations deeply embedded in the community, particularly those staffed by and connected to vulnerable populations) – whether through co-development of the proposal and a communication strategy, project implementation advisory role, or

assistance with outreach and communications. Municipalities should ensure that these organizations are compensated for their time in the budget;

- Identification of and proposed means of addressing one or more specific barriers to participation by one or more vulnerable populations;
- Use of existing communication channels to which community members are already tuned in;
- Clearly stated plan for receiving and integrating community feedback throughout the project timeline;
- Description/identification of co-benefits of proposed project related to quality of life improvements for vulnerable communities (i.e., discussion of implications of a project on considerations such as housing access, public health, or vacant land use, for example);
- Specific analysis around which communities the project affects and how, that may incorporate economic and public health indicators; and/or,
- Clearly defined goals and metrics on engagement of vulnerable communities that the project will aim to achieve.

F. INELIGIBLE PROJECTS: Ineligible projects under the MVP Action Grant include acquisition of diesel generators, and projects that seek to repair to previous conditions without consideration of climate change projections or more resilient alternatives. Other project types not meeting the goals of this BID may be deemed ineligible at the discretion of the Secretary.

3. Evaluation Criteria & Instructions for Application Submission

A. EVALUATION CRITERIA: EEA will evaluate all proposals on a competitive basis and select projects across the state provided that applications meet the criteria set forth in this BID/RFR. EEA reserves the right to reject any or all proposals that do not meet the goals and terms of this BID/RFR. Each proposal will be reviewed based on the following criteria:

1. *Project Description, Rationale, and Public Benefits (25 points)*- Detailed description of the proposed climate change adaptation project and rationale for project selection broken down by specific project tasks and subtasks (where appropriate), as well as the selected climate projections or scenarios if applicable. Each proposed task must describe work that will be completed, including details on methodology, deliverables, and project team members assigned to complete the task. Also describe how the project will improve community resilience at, adjacent to, and beyond the project site, and how the outcomes will benefit the public and public interests.

Information about how climate change projections and data will be considered and incorporated into the project design *must be provided*. Projects must include full consideration and incorporation of climate change projections and data that align with the anticipated lifespan of the project and the criticality of the asset. Best available data can be found on resilientma.org. Data from local-level climate change vulnerability studies may also be used. Proposals must include a brief description clearly demonstrating advancement of priority action(s) from the MVP report and rationale for why the project was selected for this proposal. If the action resulted from a subsequent climate resilience planning process undertaken after the MVP planning process, please describe the newer planning process, who was involved in that planning effort, how it built on the MVP process, and how it resulted in this priority action. Proposals should include a copy of the yearly progress report to the MVP plan (see **Attachment F**). Points for this category will be allocated as follows:

- Up to **9 points** for rationale – why project was chosen, what its objectives are, how it will positively impact the site and community and address identified climate change impacts/problems—and the degree to which the proposal incorporates or reflects municipal priorities established in the community’s MVP report or subsequent climate resilience report that built upon the MVP process
- Up to **5 points** for the degree to which the most up-to-date climate science and data on future conditions have informed prioritization and design of project, including specific reference to climate data utilized
- Up to **5 points** for the degree to which the project will improve resilience for Environmental Justice and/or vulnerable populations, including details around demographics and social impact
- Up to **5 points** for the degree to which the project has broader public or regional benefit(s)

- **1 point** for inclusion of MVP yearly progress report (**Attachment F**)
2. *Need for Assistance (10 points)* – Based on equalized valuation per capita, applicants are rated against one another (to be completed by EEA). To supplement this rating, Applicants should submit a narrative describing the need for funding. Points for this category will be allocated as follows:
 - Up to **5 points** based on the equalized valuation per capita, to be completed by EEA
 - Up to **5 points** for need as demonstrated through Applicant narrative
 3. *Project Feasibility and Management (12 points)* – Likelihood of project success based on factors such as landowner, public, and partner support; technical feasibility; funding feasibility; technical, financial, and management capacity and qualifications of project team; and regulatory hurdles. The name and qualifications (please include resume and summary of experience) of a municipal employee to serve as the local project manager and point of contact for the grant. Signed support letters from all relevant local boards, departments, commissions, and other partners, such as conservation groups, local businesses, or others, with a commitment for these entities to participate, as necessary, in the project. Projects that involve multiple partners are preferred. Projects that propose dedicated and compensated partnership with community organizations (community advocacy group(s) or other organizations deeply embedded in the community, particularly those staffed by and connected to vulnerable populations) will receive higher scores. Points for this category will be allocated as follows:
 - Up to **5 points** for technical, financial, and management capacity
 - Up to **5 points** for evidence of landowner, public, and/or partner support
 - Up to **2 points** for lack of regulatory hurdles to complete project within timeframe
 4. *Project Transferability, Measurement of Success, and Maintenance (8 points)*- Description of transferability of proposed project including how the project approach, techniques, and products can be used by or serve as models for other communities facing similar issues. The description should include any planned details of education and outreach efforts to communicate goals, progress, and lessons learned from the project. Efforts not only to develop transferable, feasible projects, but also to actively share results with other communities are encouraged. Description of how the project team will measure success of the project and monitor it moving forward. Description of how project will be maintained or updated into the future. Points for this category will be allocated as follows:
 - Up to **3 points** for transferability, or a description of potential project lessons that might apply to and be shared with other MVP communities, including the proposed format for how these lessons will be shared (e.g. webinar, workshop, event, website, etc.)
 - Up to **3 points** for clear description of how project success will be measured and monitored
 - Up to **2 points** for clear description of plans for how any future maintenance needs of or updates to proposed project might be addressed

5. *Community Outreach, Education, and Engagement (10 points)* – Description of how the project will engage communities and stakeholders in a creative and equitable way with a detailed approach to the community outreach, education, and engagement process. Description should also include specific stakeholder groups that will be engaged in the project and how feedback will be collected and synthesized to inform the project. Proposals should provide details about the socially vulnerable communities that this project will impact and include a detailed description of how any Environmental Justice communities will be fully engaged in the process. For all project types, proposals should draw upon the outreach and engagement guidelines listed in **Section 2E**. Points for this category will be allocated as follows:

- Up to **5 points** for the degree to which the project team will specifically engage Environmental Justice or other identified socially vulnerable communities
- Up to **3 points** for robust community engagement strategy and mechanisms– including number and details of engagement opportunities
- Up to **2 points** for clear description of and degree to which community feedback will be incorporated into project

6. *Incorporation of Nature-Based Solutions and Strategies (10 points)* – Description of how the project will incorporate principles such as low impact design, green infrastructure, natural flood protection, or increased awareness of these types of techniques should be included. Projects that leverage the natural environment and focus on soft infrastructure or other innovative solutions may receive priority. Proposals for nature-based solutions and strategies must describe how/why those particular interventions were deemed appropriate for the given priority action and project site. If hard infrastructure solutions are proposed, projects should build to new standards, using climate change projections, and should seek to incorporate green infrastructure techniques to further strengthen and add resiliency to hard infrastructure. Hard infrastructure project proposals should also include a narrative describing the assessment of options including nature-based solutions and why a nature-based solution was not ultimately chosen. Additional information about nature-based solutions including a definition, examples, and resources are included in **Appendix I**. Points for this category will be allocated as follows:

- If nature-based solutions are proposed, up to **10 points** for description of how low impact design, green infrastructure, natural flood protection, or other nature-based solutions will be used and why they have been chosen and deemed appropriate. Proposals that illustrate 1) opportunities for reducing short- or long-term maintenance costs and/or 2) co-benefits such as improving public safety, enhancing water quality, providing additional recreational opportunities, reducing liability, etc., will receive higher scores.
- If hard infrastructure solutions are proposed, the project may still receive a maximum of **4 points** in this category for a clear description of the assessment of options including nature-based solutions and why a nature-based solution was not chosen, how the project uses

climate change projections to inform design, and the addition of green infrastructure techniques to further strengthen and add resiliency to hard infrastructure.

7. *Timeline, Scope, and Budget (15 points)* – Detailed timeline with anticipated (and realistic) completion dates for the project, broken out by tasks and deliverables that will be accomplished by June 30, 2020 [FY20] and June 30, 2021 [FY21]. Applicants should include time for major draft deliverables to be reviewed by MVP Regional Coordinators prior to finalization. Preference will be given to projects that are either construction-ready (permits in hand) or demonstrated to be able to be completed within the project period. If the project proposed permitting and/or construction, include the status of application of all local, state, and federal required permits in the proposal.

Detailed budget, broken down by fiscal year and grant funds and matching funds, for the components of each project task and an explanation of how the funding and other support provided by project partners will ensure success of the project. Projects that can be fully completed in FY20 or that allocate most requested grant funds towards tasks in FY20 will be prioritized for funding. The in-kind and cash match (at least 25% of total project cost) must be documented (see further details on what qualifies as match in **Section 1H**). For proposals that span two fiscal years, most *match* funds should be dedicated to tasks in FY21. Please complete and submit **Attachment B in both Excel and PDF formats** as part of the Application. Points for this category will be allocated as follows:

- Up to **5 points** for clear project timeline
 - Up to **5 points** for a clear scope and capability to be completed within the specified contract period
 - Up to **5 points** for a clear budget delineated across fiscal years, using **Attachment B** (submitted in both Excel and PDF formats). Proposals with a majority of grant funding requested in FY20 will be given more points. If the project extends to FY21, more points will be given to proposals that allocate most *match* funds to tasks in FY21.
8. *Overall Project Quality (10 points)* –The overall quality of the grant application as determined by staff reviewers.
- Up to **10 points** for overall quality of the grant application

- B. APPLICATION SUBMISSION INSTRUCTIONS:** Submit one electronic copy by email or flash drive (attachments via email must be less than 10MB), resumes, and letters of support to Kara Runsten (see **Contact Information in Section 1N**).

The response must clearly identify the BID/RFR number on the Application (see **Attachment A**) of the response. **Applications must be received by 2:00 p.m.**

Thursday, November 14, 2019. Responses will be accepted by email or regular mail and courier (if mailing in a flash drive) in advance of the submission date and time.

All responses and information submitted in response to this BID/RFR are subject to the Massachusetts Public Records Law, M.G.L., c. 66, § 10, and c. 4, § 7, cl. 26. Any statements in submitted responses that are inconsistent with these statutes, including marking by bidders of information as confidential during the quote submission process, shall be disregarded. Please do not submit any information that the Applicant may not wish to disclose publicly, such as home addresses or personal telephone numbers, social security numbers, or other similar information, including any such information contained on resumes submitted with the application.

C. ADDITIONAL REQUIRED DOCUMENTATION: If selected for an award and not already on file, the Applicant will be required to submit the following forms to complete a contract:

- Commonwealth Standard Contract Form
- W-9 Form
- Commonwealth Terms and Conditions filled out and signed by the Applicant
- Authorized Signatory Listing Form
- Electronic Funds Transfer (EFT) set-up form

Applicants are encouraged to review these forms prior to submission of a Response. The forms may be found at this site: <http://www.mass.gov/anf/budget-taxes-and-procurement/oversight-agencies/osd/osd-forms.html>

4. Deadlines and Procurement Calendar

A. RELEASE OF BID/RFR: October 3, 2019

- B. QUESTION AND ANSWER PERIOD:** Written questions should be submitted by email to one of the regional coordinators listed in **Section 1N** no later than **October 17, 2019** at **4:00 PM**. The issuing department reserves the right not to respond to questions submitted after this date. It is the Bidder's responsibility to verify receipt of questions.

At its discretion, EEA may publish answers to submitted questions via COMMBUYS. If posted, EEA intends to post Questions and Answers on or before **October 24, 2019**.

C. APPLICATION DEADLINE: Digital copies must be received by **2:00 p.m. Thursday, November 14, 2019**.

- D. ESTIMATED AWARD DATE:** Awards are estimated to be announced by **January 6th, 2020** with contract negotiations to begin immediately thereafter.

- E. ESTIMATED CONTRACT START DATE: January 13, 2019.** Notwithstanding any verbal representations by the parties, or an earlier start date listed in the Standard Contract Form, and only after an award is issued and a final scope of services has been negotiated, the effective start date of a contract shall be the latest of the following dates: the date the Standard Contract Form has been executed by an authorized signatory of the contractor and the procuring department or a later date specified in the Standard Contract Form.

5. Miscellaneous

- A. **TYPE OF PROCUREMENT:** Grant
- B. **USE OF THIS PROCUREMENT BY SINGLE OR MULTIPLE DEPARTMENTS:** This BID/RFR is a single department procurement. All contracts awarded under this BID/RFR will be utilized solely by EEA.
- C. **REQUEST FOR SINGLE OR MULTIPLE CONTRACTORS:** Multiple contracts may be awarded under this BID/RFR.
- D. **BID DISTRIBUTION METHOD:** This BID/RFR has been distributed electronically using the COMMBUYS system. It is the responsibility of every Applicant to check COMMBUYS for any addenda or modifications to a BID/RFR to which they intend to respond. The Commonwealth of Massachusetts and its subdivisions accept no liability and will provide no accommodations to applicants who fail to check for amended BID/RFR and submit inadequate or incorrect responses. Any amendments or updates will be posted to CommBuys. It is recommended that applicants register with the CommBuys system to be alerted about updates to bids.
- E. **LIST OF ATTACHMENTS:**
 - A. Application
 - B. Budget Template
 - C. Resources
 - D. List of Other State Grant Programs to Consider for Funding MVP Priority Actions
 - E. List of Example Projects Funded through the MVP Program, Organized by Project Type
 - F. MVP Program Yearly Progress Report Template
 - G. MVP Action Grant Program Scoring Criteria Quick Reference
 - H. MVP Regional Coordinator Contacts (Map)
 - I. Nature-Based Solutions: Definition, Examples, and Resources

Attachment A: Application

Municipal Vulnerability Preparedness Grant Program Application Form
RFR ENV 20 MVP 02

1. **Municipality:** _____
2. **Project Title:** _____
3. **Type of Project (check all that apply):**
 - ☐ Detailed Vulnerability and Risk Assessment and Further Planning
 - ☐ Community Outreach and Education
 - ☐ Local Bylaws, Ordinances, Plans, and Other Management Measures
 - ☐ Redesigns and Retrofits
 - ☐ Energy Resilience Strategies
 - ☐ Chemical Safety & Climate Vulnerabilities
 - ☐ Nature-Based Flood Protection, Drought Mitigation, Water Quality, and Water Infiltration Techniques
 - ☐ Nature-Based, Infrastructure, and Technology Solutions to Reduce Vulnerability to Extreme Heat and Poor Air Quality
 - ☐ Nature-Based Solutions to Reduce Vulnerability to other Climate Change Impacts
 - ☐ Acquisition of Land to Achieve a Resiliency Objective
 - ☐ Ecological Restoration and Habitat Management to Increase Resiliency
 - ☐ Subsidized Low Income Housing Resilience Strategies
 - ☐ Mosquito Control Districts
4. **Local Project Manager and Point of Contact:** _____
Job Title: _____
Department/Agency: _____
Address: _____
_____ Zip _____
Telephone (_____) _____ Fax (_____) _____
Email: _____

5. **Proposed Funding Summary:**

Total Project Cost: _____

Grant Request: _____

Municipal Match (at least 25% of total project cost): _____

6. **Project Summary** (1-2 short paragraphs describing the project):

7. Project Narrative:

Please provide your full project narrative. See **Section 3A** for more specifics on each criterion. 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 limit responses to a reasonable length.

7.1 Project Description, Rationale, and Public Benefits (25 points)

- Up to **9 points** for rationale – why project was chosen, what its objectives are, how it will positively impact the site and community and address identified climate change impacts/problems—and the degree to which the proposal incorporates or reflects municipal priorities established in the community’s MVP report or subsequent climate resilience report that built upon the MVP process
- Up to **5 points** for the degree to which the most up-to-date climate science and data on future conditions have informed prioritization and design of project, including specific reference to climate data utilized
- Up to **5 points** for the degree to which the project will improve resilience for Environmental Justice and/or vulnerable populations, including details around demographics and social impact
- Up to **5 points** for the degree to which the project has broader public or regional benefit(s)
- **1 point** for inclusion of MVP yearly progress report (**Attachment F**)

7.2 Need for Assistance (10 points)

- Up to **5 points** based on the equalized valuation per capita, to be completed by EEA
- Up to **5 points** for need as demonstrated through Applicant narrative

7.3 Project Feasibility and Management (12 points)

- Up to **5 points** for technical, financial, and management capacity
- Up to **5 points** for evidence of landowner, public, and/or partner support
- Up to **2 points** for lack of regulatory hurdles to complete project within timeframe

7.4 Project Transferability, Measurement of Success, and Maintenance (8 points)

- Up to **3 points** for transferability, or a description of potential project lessons that might apply to and be shared with other MVP communities, including the proposed format for how these lessons will be shared (e.g. webinar, workshop, event, website, etc.)
- Up to **3 points** for clear description of how project success will be measured and monitored
- Up to **2 points** for clear description of plans for how any future maintenance needs of or updates to proposed project might be addressed

7.5 Community Outreach, Education, and Engagement (10 points)

- Up to **5 points** for the degree to which the project team will specifically engage Environmental Justice or other identified socially vulnerable communities
- Up to **3 points** for robust community engagement strategy and mechanisms– including number and details of engagement opportunities
- Up to **2 points** for clear description of and degree to which community feedback will be incorporated into project

7.6 Incorporation of Nature-Based Solutions and Strategies (10 points)

- If nature-based solutions are proposed, up to **10 points** for description of how low impact design, green infrastructure, natural flood protection, or other nature-based solutions will be used and why they have been chosen and deemed appropriate. Proposals that illustrate 1) opportunities for reducing short- or long-term maintenance costs and/or 2) co-benefits such as improving public safety, enhancing water quality, providing additional recreational opportunities, reducing liability, etc., will receive higher scores.
- If hard infrastructure solutions are proposed, the project may still receive a maximum of **4 points** in this category for a clear description of the assessment of options including nature-based solutions and why a nature-based solution was not chosen, how the project uses climate change projections to inform design, and the addition of green infrastructure techniques to further strengthen an add resiliency to hard infrastructure.

7.7 Timeline, Scope, and Budget (15 points)

- Up to **5 points** for clear project timeline
- Up to **5 points** for a clear scope and capability to be completed within the specified contract period
- Up to **5 points** for a clear budget delineated across fiscal years, using **Attachment B** (submitted in both Excel and PDF formats). Proposals with a majority of grant funding requested in FY20 will be given more points. If the project extends to FY21, more points will be given to proposals that allocate most *match* funds to tasks in FY21.

8. Attach **Yearly Progress Report** (use EEA-provided template in **Attachment F**)

9. Attach **Statement of Match** (described in **Section 1H**)

Date

Signature of Chief Municipal Officer

Name and Title (Typed)

Duration of Term

Mailing Address: _____

Telephone: () _____

Attachment B: Budget (see template on COMMBUYS)

MUNICIPAL VULNERABILITY PREPAREDNESS PROGRAM FY 20

MVP ACTION GRANT

RFR ENV 20 MVP 02

Please use the template on COMMBUYS and attach to the application in both Excel and PDF formats.

Attachment C: Resources

MUNICIPAL VULNERABILITY PREPAREDNESS PROGRAM FY 20

MVP ACTION GRANT

RFR ENV 20 MVP 02

The following is a list of climate adaptation resources.

- **Massachusetts Climate Change Clearinghouse** (<http://www.resilientma.org/>) – This website provides access to climate change projections (<http://www.resilientma.org/resources/resource::2152>), maps, websites, tools, and documents relevant to climate change adaptation and mitigation across Massachusetts.
- **Massachusetts State Hazard Mitigation and Climate Adaptation Plan** (<https://www.mass.gov/service-details/massachusetts-integrated-state-hazard-mitigation-and-climate-adaptation-plan>) – This 2018 plan comprehensively integrates climate change impacts and adaptation strategies with hazard mitigation planning by assessing risk and vulnerability within state agencies, communities, and across the Commonwealth.
- **FEMA's Hazard Mitigation Assistance Guidance:** https://www.fema.gov/media-library-data/1424983165449-38f5dfc69c0bd4ea8a161e8bb7b79553/HMA_Guidance_022715_508.pdf
- **Massachusetts Office of Technical Assistance and Technology Chemical Safety and Climate Preparedness:** <https://www.mass.gov/chemical-safety-and-climate-change-preparedness> – This webpage provides resources and models for incorporating toxics use reduction into emergency preparedness to reduce the risk of industrial accidents.
- **Naturally Resilient Communities website:** <http://nrcsolutions.org/> – This website provides guidance and case studies about using nature-based solutions to improve community resilience.
- **Coastal Resilience Natural Solutions Toolkit:** <http://coastalresilience.org/natural-solutions/toolkit/>. Developed by The Nature Conservancy and other partners, this spatial decision support tool provides scientific information about coastal nature-based solutions to build resilience.

- Sea Level Rise: Understanding and Applying Trends and Future Scenarios for Analysis and Planning** (www.mass.gov/eea/docs/czm/stormsmart/slr-guidance-2013.pdf) – This 2013 document provides background information on local and global sea level rise trends, summarizes sea level rise projections, and provides general guidance in the selection and application of sea level rise scenarios for coastal vulnerability assessments, planning, and decision making for areas that may be at present or future risk from the effects of sea level rise. *Applicants should review the updated, downscaled sea level rise scenario(s) available through the MA Climate Change Clearinghouse* (www.resilientma.org) and specify which sea level rise scenario(s) they are utilizing in their proposed projects.
- Massachusetts Sea Level Rise and Coastal Flooding Viewer** (<https://mass-eoea.maps.arcgis.com/apps/MapSeries/index.html?appid=6f2797652f8f48eaa09759ea6b2c4a95>) – This 2017 interactive viewer displays community facilities and infrastructure along the Massachusetts coast that are vulnerable to coastal flooding from sea level rise and storm surge. Applicants are encouraged to utilize the viewer and technical report to support the assessment of potential future vulnerability of a particular area and development of proposed projects.
- MyCoast Reports of Impacts and Changing Conditions** (www.mycoast.org/ma) - This portal collects data and information on coastal impacts to the built and natural environment from local observations during and immediately after coastal storms. The portal also hosts a Coastal Resilience monitoring tool to help communities track physical and biological conditions and structural integrity of coastal green infrastructure projects over time. The reports and photos of coastal impacts (including king tides) can be referenced in project proposals to help document current vulnerabilities and support project approaches.
- StormSmart Coasts** (www.mass.gov/eea/agencies/czm/program-areas/stormsmart-coasts) - This website includes information on assessing the vulnerability of coastal properties to erosion and flooding, tools for local officials to improve coastal floodplain management, and more. Applicants are encouraged to familiarize themselves with tools, resources, pilot projects, and other support and guidance available to communities.
- StormSmart Properties Fact Sheets** (www.mass.gov/eea/agencies/czm/program-areas/stormsmart-coasts/stormsmart-properties) - These fact sheets provide information on a range

of measures that can effectively reduce erosion and storm damage while minimizing impacts to shoreline systems. The seven techniques currently covered are: artificial dunes and dune nourishment, controlling overland runoff to reduce coastal erosion, planting vegetation to reduce erosion and storm damage, bioengineering - coir rolls on coastal banks, bioengineering - natural fiber blankets on coastal banks, sand fencing, and repair and reconstruction of seawalls and revetments.

- **Beach Nourishment: MassDEP's Guide to Best Management Practices for Projects in Massachusetts**
(www.mass.gov/eea/agencies/massdep/water/watersheds/beach-nourishment-massdep-guide-to-best-management-practices-for-projects-in-massachusetts-.html) - This 2007 guidance document provides best management practices for minimizing erosion, maximizing longevity, and minimizing adverse impacts of beach nourishment projects.

**Attachment D: List of Other State Grant Programs to Consider for Funding MVP
Priority Actions**

MUNICIPAL VULNERABILITY PREPAREDNESS PROGRAM FY 20

MVP ACTION GRANT

RFR ENV 20 MVP 02

This list provides a non-exhaustive selection of other State grant programs that can support implementation of priority projects identified through the MVP program.

1. Dam and Seawall Repair or Removal Program Grants and Funds

<https://www.mass.gov/service-details/dam-and-seawall-repair-or-removal-program-grants-and-funds>

The Dam and Seawall Repair or Removal Grants and Funds can be used to support the repair or removal of dams, seawalls and other coastal infrastructure, and levees.

2. Coastal Resilience Grant Program

<http://www.mass.gov/eea/agencies/czm/program-areas/stormsmart-coasts/grants/>

The Massachusetts Office of Coastal Zone Management (CZM) administers the Coastal Resilience Grant Program to provide financial and technical support to coastal communities and eligible non-profits to increase awareness and understanding of climate impacts, identify and map vulnerabilities, conduct adaptation planning, redesign vulnerable public facilities and infrastructure, and implement non-structural (or green infrastructure) approaches that enhance natural resources and provide storm damage protection. Managed through CZM's StormSmart Coasts program, grants are available for a range of coastal resilience approaches—from planning, public outreach, feasibility assessment, and analysis of shoreline vulnerability to design, permitting, construction, and monitoring.

3. Local Acquisitions for Natural Diversity (LAND) Grant Program

<https://www.mass.gov/service-details/local-acquisitions-for-natural-diversity-land-grant-program>

The LAND Grant Program helps cities and towns acquire land for conservation and passive recreation purposes. The grants reimburse cities and towns for the acquisition of land in fee or for a conservation restriction.

4. Drinking Water Supply Protection Grant Program

<https://www.mass.gov/service-details/drinking-water-supply-protection-grant-program-1>

Drinking Water Supply Protection Grant Program provides financial assistance for the purchase of land in existing Department of Environmental Protection (DEP)-approved drinking water supply protection areas, or land in estimated protection areas of identified and planned future water supply wells or intakes.

5. Landscape Partnership Grant Program

<https://www.mass.gov/service-details/landscape-partnership-grant-program>

This program seeks to protect large blocks of conservation land. Local, state, and federal government agencies and non-profit groups can use this grant to work together to protect at least 500 acres of land. Eligible projects include purchase of land in fee simple for conservation, forestry, agriculture, or water supply purposes, purchase of a Conservation Restriction, Agricultural Preservation Restriction, or Watershed Preservation Restriction, or construction of a park or playground.

6. Flood Hazard Mitigation Program

<https://www.mass.gov/service-details/flood-hazard-mitigation-program>

The HMGP provides funds to states, territories, tribal governments, and other communities after a disaster to reduce or eliminate future risk to lives and property from natural hazards. State and local governments, tribal organizations, and certain private non-profits may be eligible to apply for funding to cover projects including storm-water upgrades, drainage and culvert improvements, property acquisition, slope stabilization, infrastructure protection, seismic and wind retrofits, structure elevations, etc.

7. Division of Ecological Restoration

<https://www.mass.gov/how-to/become-a-der-priority-project>

The Division of Ecological Restoration selects wetland, river and flow restoration projects through a state-wide, competitive process. We choose high-priority projects that bring significant ecological and community benefits to the Commonwealth.

- Dam Removal: <https://www.mass.gov/river-restoration-dam-removal>
- Streamflow: <https://www.mass.gov/river-restoration-streamflow>
- Culvert Replacements: <https://www.mass.gov/river-restoration-culvert-replacements>
- Urban River Revitalization <https://www.mass.gov/river-restoration-urban-river-revitalization>
- Wetlands Restoration: <https://www.mass.gov/wetlands-restoration>

8. MET Drive for a Better Environment (DFBE) Grants Program

<https://www.mass.gov/service-details/met-drive-for-a-better-environment-dfbe-grants-program>

The DFBE Grants Program provides funding to innovative and well-designed projects that support the advancement of marine animal conservation efforts and restoration and enhancement of aquatic ecosystems within Massachusetts.

9. MassBays Healthy Estuaries Grants

<https://www.mass.gov/massbays-healthy-estuaries-grants>

MassBays provides small grants to nonprofit organizations, academic institutions, and municipalities for projects that advance progress toward the goals of our Comprehensive Conservation and Management Plan. MassBays seeks proposals that will fill in gaps in knowledge about assessment areas, demonstrate new approaches to monitoring or protecting near-shore habitats, or lay the groundwork for future restoration.

10. Massachusetts Land and Water Conservation Fund Grant Program

<https://www.mass.gov/service-details/massachusetts-land-and-water-conservation-fund-grant-program>

The Federal Land & Water Conservation Fund provides up to 50% of the total project cost for the acquisition, development, and renovation of parks, recreation, and conservation areas. Eligible projects include acquisition of parkland or conservation land, creation of new parks, renovations to existing parks, and development of trails.

11. Agricultural Environmental Enhancement Program (AEEP)

<https://www.mass.gov/service-details/agricultural-environmental-enhancement-program-aEEP>

AEEP is a competitive, reimbursement grant program that funds materials and labor for conservation practices that mitigate or prevent negative impacts to the state's natural resources that may result from agricultural practices. Practices funded include those that prevent direct impacts on water quality, ensure efficient use of water, and address agricultural impacts on air quality. Reimbursement grants up to \$25,000 will be awarded on a competitive basis.

12. Agricultural Preservation Restriction (APR) Program

<https://www.mass.gov/service-details/agricultural-preservation-restriction-apr-program-details>

The APR program preserves and protects agricultural land, including designated farmland soils, which are a finite natural resource, from being built upon for non-agricultural purposes or used for any activity detrimental to agriculture. It is a voluntary program which offers a non-development alternative to farmers and other owners of "prime" and "state important" agricultural land who are faced with a decision regarding future use and disposition of their farms.

13. State Revolving Fund (SRF) Loan Program

<https://www.mass.gov/state-revolving-fund-srf-loan-program>

The Clean Water SRF Program helps municipalities comply with federal and state water quality requirements by focusing on watershed management priorities, storm water management, and green infrastructure. The Drinking Water Program provides loans to communities to improve water supply infrastructure and drinking water safety.

14. Conservation Partnership Grant Program

<https://www.mass.gov/how-to/apply-for-a-conservation-partnership-grant>

The Conservation Partnership Grant funds the acquisition of conservation land by non-profit entities. This program provides funding to assist non-public, not-for-profit corporations and conservation districts in acquiring and holding interests in lands suitable for conservation or recreation purposes. Municipalities interested in conserving a land through a Conservation Partnership Grant can coordinate with a non-profit entity to achieve the desired conservation goal.

15. Habitat Management Grant Program

<https://www.mass.gov/service-details/masswildlife-habitat-management-grant-program>

Managed by the Massachusetts Division of Fisheries and Wildlife (MassWildlife), the Habitat Management Grant Program (MHMGP) was developed to establish partnerships between MassWildlife and private and municipal landowners to enhance habitat and increase recreational opportunities on properties across the state. MHMGP is designed to provide financial assistance to private and municipal landowners of protected lands to support active habitat management while fostering partnerships to encourage landscape scale habitat management and expand public recreation on conserved lands.

16. Coastal Pollutant Remediation Grant Program

<https://www.mass.gov/service-details/coastal-pollutant-remediation-cpr-grant-program>

The Coastal Pollutant Remediation Grant Program, administered by CZM since 1996, provides funding to municipalities in the [Massachusetts Coastal Watershed](#) to address nonpoint source pollution impacting coastal habitats and water quality. Eligible projects include assessment of pollutant sources, prioritization of sites for remediation, and the design, permitting, and construction of appropriate stormwater Best Management Practices and commercial boat-waste pumpout facilities. The CPR grant program strongly encourages applicants to include the consideration of climate change impacts when siting and designing stormwater infrastructure, to ensure long-term resilience and effectiveness.

Attachment E: List of example projects funded through MVP program, organized by project type:

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This list provides a non-exhaustive selection projects that have been funded through the MVP Action grant program, organized by project type.

Detailed Vulnerability and Risk Assessment and Further Planning

- **Carver – Climate Change Water Resource Vulnerability and Adaptation Strategy**
Assessment: The Town of Carver conducted a climate change vulnerability assessment and management plan that addressed natural and man-made water resource features in the community. The project consisted of a series of technical assessments focused on these major types of water resources within the community and associated climate change vulnerabilities. The results of the technical assessments will guide the development of an integrated water resources climate resiliency management plan.
- **Scituate and Cohasset - Mapping Storm Tide Pathways:** The Towns will identify storm tide pathways and develop associated maps and GIS data. Field work necessary to verify the location of pathways identified through spatial analysis, as well as to document accurate locations, will be conducted and incorporated into the project GIS of inundation pathways developed for each town.
- **Swansea - Public Water Supply Infrastructure Vulnerability Assessment:** The Town of Swansea conducted a climate change vulnerability assessment of its desalination treatment facility's raw water intake infrastructure and the primary access road to the infrastructure. The assessment was conducted by an engineering consultant, in collaboration with the Town's technical staff, to develop a future resiliency plan to protect the public water supply from sea level rise and extreme storms.

Community Outreach and Education

- **Cambridge – Climate Change Preparedness and Resilience Catalyst Project:** The City of Cambridge developed four resilience toolkits for renters, small residential owners, small businesses, and large businesses. Each toolkit was presented in a workshop targeting the relevant audience.
- **Sandwich - Communicating the Local Benefits of a Resilient Coast:** The Town developed outreach and education materials – including an ArcGIS StoryMap, printed materials, and a 7th – 8th grade STEM curriculum unit – to communicate climate change vulnerabilities and the benefits that the Town's ongoing coastal resilience initiatives provide to the community as a whole.
- **Somerville – Detailed Vulnerability and Risk Assessment, Green Infrastructure, Public Education & Communication:** The City of Somerville enhanced its basic city-wide

storm water and sanitary system model to understand its vulnerability to flooding on a street-by-street basis, and used this data to learn where green infrastructure can best impact flood control and water quality management and to develop a flood risk communications strategy, messaging, and materials targeted towards residents in inundation-prone areas.

Local Bylaws, Ordinances, Plans, and Other Management Measures

- **Brookline – Climate Resiliency Policy Audit/Amendments and LID and Design Guidelines:** The Town of Brookline engaged with an engineering firm to conduct an audit of its storm water, floodplains, zoning, and wetlands bylaws and DPW Site Plan Review Checklist to identify opportunities to mandate higher standards for climate resiliency or identify any conflicts with State policy.
- **Mendon - Integration of Low Impact Development Standards into Local Bylaws and Subdivision Regulations:** The Town of Mendon built on the work done in 2016 with Mass Audubon and the MVP process to undertake the drafting of comprehensive Low Impact Development (LID) bylaws.

Redesigns and Retrofits

- **Salisbury – Resilient Ring Island: Preventing a Neighborhood from Being Stranded by Flooding:** The Town will increase the resilience of the neighborhood of Ring’s Island by raising its access/egress roads and by improving tidal flushing through culvert replacements at both 1st Street/March Road and Ferry Road. This project involves a redesign and retrofit of infrastructure, as well as a natural storm damage protection technique
- **Southwick - Klaus Anderson Road/Johnson Brook Road-Stream Crossing Redesign, Floodplain:** The Town will complete specific designs and permitting for a replacement stream crossing at the Klaus Anderson Road/Johnson Brook culvert that will meet Massachusetts Stream Crossing Standards. The project will include upstream stormwater management and flood resiliency improvements that utilize green infrastructure, Low-Impact Design, or other nature-based solutions such as floodplain restoration and reconnection.
- **Spencer – Green Infrastructure Implementation in Downtown Spencer, Mechanic Street Parking Lot:** The Town will implement green stormwater infrastructure techniques as part of a parking lot redevelopment project in downtown Spencer. The proposed design will incorporate rain gardens/bioretention and belowground infiltration systems to reduce runoff and pollutant loads from the lot, as well as green stormwater practices along Mechanic Street to capture and treat additional runoff. MVP funding will support the design, permitting, and construction of the project.

Energy Resilience Strategies

- **Holden – Water/Sewer Infrastructure Green Emergency Power Study:** The Town of Holden conducted a study to investigate the possibilities of providing “green” emergency power.

Nature-Based Flood Protection, Drought Mitigation, Water Quality, and Water Infiltration Techniques

- **Arlington - Mill Brook Corridor Flood Management Demonstration Project: Pilot Study and Implementation:** The Town of Arlington expanded upon an existing project supported by Community Preservation Act funds to survey the Mill Brook corridor, design public access improvements between Wellington Park and the Brook, and enhance the natural resources of the Brook and surrounding areas. Improvements to Mill Brook include invasive plant removal, flood storage capacity, bank stabilization, and revegetation.
- **Northampton - Northampton Designs with Nature to Reduce Storm Damage:** The City of Northampton designed green infrastructure to detain, retain, and treat stormwater using nature-based solutions. The City conducted site analysis on ten opportunity sites on public land that were identified and prioritized based on harm/vulnerability reduction and storm water benefits.

Nature-Based, Infrastructure and Technology Solutions to Reduce Vulnerability to Extreme Heat and Poor Air Quality

- **Millbury – Armory Village Green Infrastructure Project:** This project represents Phase 1 of a larger project addressing stormwater capacity throughout Armory Village. Green infrastructure like stormwater planters, bioretention bump outs, rain gardens, tree box filters, tree planting, and selective application of porous pavers and pervious pavement will reduce heat island effects and stormwater runoff to the Blackstone River. Interpretive signage will be installed on the Lower Common to describe various green infrastructure techniques used and their benefits for ameliorating climate change, improving water quality, and minimizing the quantity of water impacting the Blackstone River.
- **Natick - Tree Planting Plan to Mitigate Heat Islands and Reduce Runoff:** The Town of Natick developed a 5-10 year tree planting plan focused on mitigating heat islands, providing shade for vulnerable populations, and reducing storm water runoff. The Town focused on public and private properties with significant impervious surface, areas with known Environmental Justice communities and vulnerable populations, and land with significant storm water runoff.

Nature-Based Solutions to Reduce Vulnerability to Other Climate Change Impacts

- **Concord – Reforestation and Tree Resilience:** This project includes planting 100-125 trees (following Greening the Gateway Cities Program standards), ash tree treatment to control the spread of Emerald Ash Borer, and a tree farm feasibility study to determine if the development of a municipal tree farm/nursery on a predetermined site is feasible and will provide long-term climate benefits. A preliminary design will be created for such a tree farm.

Acquisition of Land to Achieve a Resiliency Objective

- **Mattapoisett – Pine Island Pond Watershed Lands Project:** The Town of Mattapoisett is partnering with the Mattapoisett Land Trust and the Buzzards Bay Coalition (BBC) to

purchase 120 acres of pristine forest, streams, freshwater wetlands and coastal salt marsh in the Pine Island Pond area of Mattapoisett. The Town will purchase a Conservation Restriction (CR) on these 120 acres. The CR will be co-held by the Town's Conservation Commission and BBC.

Ecological Restoration and Habitat Management to Increase Resiliency

- **Essex - Feasibility Study for an Essex Bay Living Shoreline:** The Town of Essex conducted a feasibility study on the creation of a "living shoreline" that investigated how a nature-based solution relying on green infrastructure for storm protection can be designed to also provide ecological restoration and habitat management to increase coastal resiliency for the Town.
- **Falmouth – Coonamessett River Restoration Project: Construction of Phase 2:** The Town is currently undertaking the restoration of the lower Coonamessett River and associated former cranberry bog complex. Phase 2 includes removal of a second dam, replacement of a failing culvert, and restoration of the remaining 39 acres of the cranberry bog complex and 3,000 linear feet of the Coonamessett River.
- **Manchester-by-the-Sea– Sawmill Brook Central Pond Restoration Design:** The Town of Manchester-by-the-Sea completed the permit level design for its Sawmill Brook Central Pond Restoration. The restoration design was optimized to maintain flood storage capacity and considered hard and soft solutions for erosion control, evaluated options to retrofit a storm water outfall, and improved habitat value within the Pond through a shift from the currently impounded water body to a tidally flushed riverine/marsh system.

Attachment F: MVP Yearly Progress Report Template

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Executive Office of Energy and Environmental Affairs

Municipal Vulnerability Preparedness Program Yearly Progress Report

July 1, 2018-June 30, 2019 Reporting Period



Date: [Click here to enter text.](#)

Municipality: [Click here to enter text.](#)

Local MVP Contact Name: [Click here to enter text.](#)

1. Please list your municipalities' top priority actions, in order of priority, identified through the MVP planning process.
2. Has your Core Team reconvened since your Listening Session? If so, describe the process and any revisions or updates your team made to the original MVP Report? Please list your MVP Core Team members and note any new members.
3. Discuss any other work related to the MVP process or climate change resiliency in the municipality. In what ways has your municipality used the outcomes of your workshop in other planning efforts (e.g., updating existing local plans)?

4. Please list any grants that your municipality has applied for, or received, to implement actions from your MVP report. Please note grant awards or applications that advanced priority actions.
5. Please list any other steps that your municipality has taken towards implementing your priority actions.
6. Please list any potential next steps to advance priority actions during FY2020 (July 1, 2019 to June 30, 2020)?
7. Please note any difficulties or challenges the community has identified through the MVP planning process or while seeking to implement priority actions and any steps the community has identified to address these challenges.

8. Please identify any data needs or information gaps that the state could help fill.

Attachment G: MVP Action Grant Program Scoring Criteria Quick Reference (More details in Section 3A)

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Evaluation Criterion	Potential Points
<i>Project Description, Rationale, and Public Benefits (25 points)</i>	<ul style="list-style-type: none"> - Up to 9 points for rationale – why project was chosen, what its objectives are, how it will positively impact the site and community and address identified climate change impacts/problems —and the degree to which the proposal incorporates or reflects municipal priorities established in the community’s MVP report or subsequent climate resilience report that built upon the MVP process - Up to 5 points for the degree to which the most up-to-date climate science and data on future conditions have informed prioritization and design of project, including specific reference to climate data utilized - Up to 5 points for the degree to which the project will improve resilience for Environmental Justice and/or vulnerable populations, including details around demographics and social impact - Up to 5 points for the degree to which the project has broader public or regional benefit(s) - 1 point for inclusion of MVP yearly progress report (Attachment F)
<i>Need for Assistance (10 points)</i>	<ul style="list-style-type: none"> - Up to 5 points based on the equalized valuation per capita, to be completed by EEA - Up to 5 points for need as demonstrated through Applicant narrative
<i>Project Feasibility and Management (12 points)</i>	<ul style="list-style-type: none"> - Up to 5 points for technical, financial, and management capacity - Up to 5 points for evidence of landowner, public, and/or partner support - Up to 2 points for lack of regulatory hurdles to complete project within timeframe
<i>Project Transferability, Measurement of Success, and Maintenance (8 points)</i>	<ul style="list-style-type: none"> - Up to 3 points for transferability, or a description of potential project lessons that might apply to and be shared with other MVP communities, including the proposed format for how these lessons will be shared (e.g. webinar, workshop, event, website,

	<p>etc.)</p> <ul style="list-style-type: none"> - Up to 3 points for clear description of how project success will be measured and monitored - Up to 2 points for clear description of plans for how any future maintenance needs of or updates to proposed project might be addressed
<i>Community Outreach, Education, and Engagement (10 points)</i>	<ul style="list-style-type: none"> - Up to 5 points for the degree to which the project team will specifically engage Environmental Justice or other identified socially vulnerable communities - Up to 3 points for robust community engagement strategy and mechanisms– including number and details of engagement opportunities - Up to 2 points for clear description of and degree to which community feedback will be incorporated into project
<i>Incorporation of Nature-Based Solutions and Strategies (10 points)</i>	<ul style="list-style-type: none"> - If nature-based solutions are proposed, up to 10 points for description of how low impact design, green infrastructure, natural flood protection, or other nature-based solutions will be used and why they have been chosen and deemed appropriate. Proposals that illustrate 1) opportunities for reducing short- or long-term maintenance costs and/or 2) co-benefits such as improving public safety, enhancing water quality, providing additional recreational opportunities, reducing liability, etc., will receive higher scores. - If hard infrastructure solutions are proposed, the project may still receive a maximum of 4 points in this category for a clear description of the assessment of options including nature-based solutions and why a nature-based solution was not chosen, how the project uses climate change projections to inform design, and the addition of green infrastructure techniques to further strengthen an add resiliency to hard infrastructure.
<i>Timeline, Scope, and Budget (15 points)</i>	<ul style="list-style-type: none"> - Up to 5 points for clear project timeline - Up to 5 points for a clear scope and capability to be completed within the specified contract period - Up to 5 points for a clear budget delineated across fiscal years, using Attachment B (submitted in both Excel and PDF formats). Proposals with a majority of grant funding requested in FY20 will be given

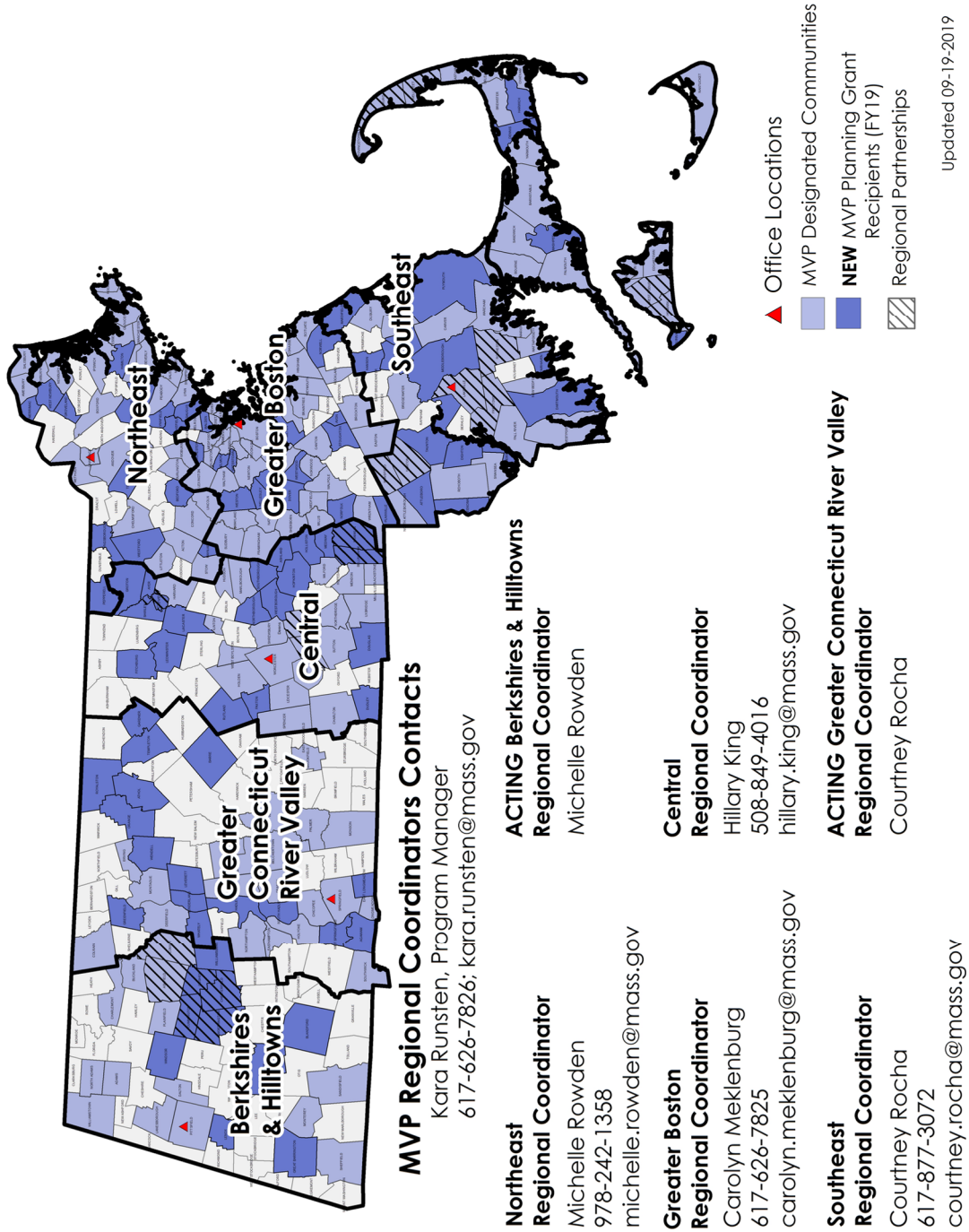
	more points. If the project extends to FY21, more points will be given to proposals that allocate most <i>match</i> funds to tasks in FY21.
<i>Overall Project Quality (10 points)</i>	– Up to 10 points for overall quality of the grant application

Attachment H: MVP Regional Coordinator Contacts

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Attachment I: Nature-Based Solutions: Definition, Examples, and Resources

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Nature-Based Solutions

What are nature-based solutions?

Nature-based solutions rely on ecological processes to achieve climate resilience objectives. They use natural systems, mimic natural processes, or work in tandem with traditional approaches to address natural hazards like flooding, erosion, drought, and heat islands.¹

These solutions provide benefits to communities that go beyond hazard mitigation, such as clean water, healthy fisheries, additional recreational opportunities, carbon sequestration, and protection of biodiversity.

Examples:

Nature-based climate adaptation solutions include various types of green infrastructure, ecological restoration, open space preservation, and low-impact development practices. Options include:

- Wetlands conservation
- Raingardens and bioswales to capture stormwater, recharge aquifers, and improve water quality
- Tree-planting to improve air quality and mitigate urban heat islands
- Land acquisition to conserve habitat and limit development in risky areas like floodplains
- Daylighting streams to mitigate flooding and turn waterways into scenic community assets
- Dam removal to remove deteriorating infrastructure and restore riverine ecosystems
- Bylaw review to encourage Low-Impact Development (LID) and encourage open space preservation
- And many other approaches

Several MVP action grants have already been awarded to nature-based solution proposals. Some of these action grants are listed below:

Municipality:	Project Description:	Climate Hazard Addressed:	Resilience Benefits	Co-Benefits
Essex	The Town of Essex investigated living shoreline techniques for storm protection and habitat management.	Coastal Flooding	Storm protection	Improve fish and wildlife habitat; Salt marsh restoration; Recreational opportunities
Falmouth	Falmouth is currently undertaking the restoration of the lower Coonamessett River. Project includes removal of an aging dam; restoration of floodplain wetlands; replacing failing culverts with a storm-smart culvert that provides passage for fish and wildlife.	Inland Flooding; Ecological Change	Increased flood storage; Safer road	Improved fish and wildlife passage; Improved salt marsh migration
Mattapoisett	Mattapoisett is partnering with the Mattapoisett Land Trust and the Buzzards Bay Coalition (BBC) to purchase 120 acres of forest, streams, freshwater wetlands and coastal salt marsh in the Pine Island Pond area to limit future development in this vulnerable location.	Extreme Weather; Coastal Flooding	Storm protection; Reduced chance of future development in harm's way	Recreational opportunities; Natural resource conservation
Spencer	Spencer will implement green stormwater infrastructure techniques as part of a parking lot redevelopment project. The proposed design will incorporate rain gardens/bioretention and belowground infiltration systems to reduce runoff and pollutant loads from the lot, as well as green stormwater practices to capture and treat additional runoff.	Inland Flooding	Increased flood storage	Improved water quality; Additional recreational areas
Woburn	Woburn is restoring Horn Pond Brook so that flooding is reduced, and habitat is improved for migratory fish passage. The City also plans to install two green infrastructure demonstration projects: a rain garden near its water treatment plant on Lake Avenue, adjacent to Horn Pond, to capture and treat stormwater and protect the brook's water quality, as well as shade tree plantings at the City's Senior Center.	Inland Flooding; Extreme Temperatures	Flood storage and control; Increased shade and cooling	Improved water quality; Improved fish habitat; Improved recreational areas

Additional Resources:

[Naturally Resilient Communities](#) - This tool demonstrates nature-based solutions to address flooding. It includes the ability to filter strategies by flooding type, case studies on many different solutions, and information on funding opportunities.

[NBS Procurement Guide](#) – This resource from the Nature Conservancy explains how officials should craft RFP language to encourage procurement of Nature-Based Solutions.

[Community Incentives for Nature-Based Solutions](#) – FEMA explains how nature-based solutions qualify for their Community Rating System, which provides flood insurance premium discounts.

[Low-Impact Development Fact Sheets](#) – Mass Audubon’s fact sheets discuss the benefits of LID and green infrastructure, and includes case-studies from projects within the state.

[MA Department of Ecological Restoration \(DER\) Culvert Replacement Program](#) – Grant program that provides funding and technical assistance to communities seeking to replace undersized/failing culverts.

[DER Dam Removal Program](#) – DER helps dam owners through the dam removal process, providing funding, project management, and technical assistance.

[DER Priority Project Program](#) – Program that selects wetland, river, and flow restoration projects.