

Municipal Vulnerability Preparedness Summary of Findings and 2020 Draft Hazard Mitigation Plan

Seekonk, Massachusetts



Prepared for:

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1.0 INTRODUCTION

In summer of 2019, the Town of Seekonk (the Town) received a Municipal Vulnerability Preparedness (MVP) Planning Grant from the Massachusetts Executive Office of Energy and Environmental Affairs (EEA) to evaluate natural hazards facing the Town, discuss municipal strengths and vulnerabilities, and identify opportunities to improve the Town's overall resiliency to climate change. These goals were accomplished by following the Community Resilience Building (CRB) framework, a public-input process developed by The Nature Conservancy, which leverages the local knowledge and experience of community members to develop a Town-specific list of priorities to respond to climate-related hazards.



www.CommunityResilienceBuilding.org

The process of identifying natural hazards, documenting municipal strengths and vulnerabilities, and prioritizing actions to address those strengths and vulnerabilities are key pillars of local hazard mitigation planning. For this reason, the EEA offered the Town of Seekonk additional grant funds to prepare a local Hazard Mitigation Plan (HMP) in concert with the MVP process. In accordance with the Disaster Mitigation Act of 2000, a local HMP is required by the Federal Emergency Management Agency (FEMA) for municipalities to receive funding for non-emergency disaster assistance. Local HMPs are reviewed by the Massachusetts Emergency Management Agency (MEMA) followed by FEMA for approval, then adopted by local officials. Updates to local HMPs are required every 5 years.

Hazard preparedness and associated mitigation allows communities to identify policies, activities, and tools to implement actions in advance of a hazard occurrence. Implementation of such actions has been documented to reduce losses to infrastructure and critical facilities; according to the National Institute of Building Sciences, investment in mitigation strategies can result in \$4 to \$11 saved for every \$1 spent, depending on the strategy and sector¹. Additional benefits of local hazard mitigation planning include an increased awareness of vulnerabilities, improved safety and welfare of communities and citizens, and community commitment to mitigation. In contrast, lack of hazard awareness and mitigation plan could lead to unnecessary loss of property and potential human casualties.

With this assistance from EEA, the Town evaluated natural hazard mitigation planning through the lens of climate change, generating this Municipal Vulnerability Preparedness Summary of Findings and 2020 Draft Hazard Mitigation Plan (the MVP-HMP Hybrid). Upon completion of the CRB process, the Town will become designated by EEA as an MVP Certified Community. This designation makes the Town eligible for grant funds to implement resiliency planning and improvement projects outlined herein.

¹https://cdn.ymaws.com/www.nibs.org/resource/resmgr/reports/mitigation_saves_2019/mitigationsaves2019report.pdf

2.0 OVERVIEW

2.1 Town Profile

The Town of Seekonk is a municipality in Bristol County, Massachusetts, containing approximately 18.4 square miles, or 11,776 acres, of land. Seekonk is uniquely positioned in that it borders urban and rural communities in both Massachusetts and Rhode Island. The Town is bounded to the west by the City of East Providence, the City of Pawtucket, and the Town of Barrington, in Rhode Island, and to the north, south, and east by the communities of Rehoboth, Swansea, and Attleborough in Massachusetts.

2.1.1 Population, Housing, Land Use Characteristics

2.1.1.1 Population and Housing

According to the American Community Survey (ACS), the Town had an estimated population of 15,702 in 2018, which represented an increase of 14.4% since the 2010 U.S. Census. Approximately 18.1% of Seekonk residents are age 65 or older, and approximately 4.8% of residents live below the national poverty line.

Table 1: 2010 and 2018 Population Changes in Seekonk

Year	Total Populations	Percent Change
2010	13,722	-
2018	15,702	14.4%

Source: 2010 U.S. Census, 2018 American Community Survey

There are approximately 6,004 census-defined households in Seekonk, with an estimated density of 2.53 persons per household. The total number of housing units in Seekonk, based on the ACS, is approximately 6,209.² According to the ACS, the owner-occupied housing unit rate within the Town is approximately 87.1% as of 2018, approximately 24.8% above the state average³.

Seekonk has its own school system which includes four active schools. According to the Massachusetts Department of Education, approximately 2,080 students were enrolled in the school through grade 12 for the FY2019- 2020 school year. The public-school system includes two elementary schools, one middle school, and one high school.

² Seekonk Housing Production Plan, 2010.

https://www.seekonk-ma.gov/sites/seekonkma/files/uploads/seekonk_housing_production_plan_final_draft.pdf

³ <https://www.census.gov/quickfacts/fact/table/seekonktownbristolcountymassachusetts,MA/>

2.1.1.2 Land Use Characteristics

Seekonk was a strong agrarian community in the century following its incorporation; as such, portions of the Town maintain this rural character. Other, more densely populated areas of Town represent large tracts of land that were subsequently subdivided, featuring both residential and commercial development. Figure 1 depicts the population density of census tracts.

The Seekonk Master Plan Baseline Report prepared in 2012 by Horsley Witten Group, Inc. provides a succinct description of the changes in development patterns within the Town. This baseline plan notes:

The suburbanization that did take place in Seekonk happened in a polarized north-south fashion. Northern Seekonk residential development eventually grew in response to the Pawtucket urban core, while southern Seekonk was linked to East Providence and Providence. The remnants of this polarization are evidenced in the Town's land use pattern. An array of mature subdivisions occupies the northwest area of Town in proximity to Pawtucket and to East Providence. The separation between north and south is psychological as well as physical as the east-west running Route 44 serves as an informal boundary between "north" and "south" Seekonk. Commercial development has proliferated along this arterial road that is the main route from Providence to Taunton serving as a true commercial corridor for the region.⁴

The general trend toward urbanization/suburbanization of the region has implications for natural hazard planning. As more land is developed, additional impervious surface is created, potentially increasing the flood risk, and decreasing the area available for flood storage. As population and housing density increases, the potential for property damage and economic loss as a result of a natural disaster also increases.

2.1.2 Open Space/Conservation Land

Although there has been a significant increase in residential and commercial development, Seekonk maintains a rich amount of open space and protected land, including parcels subject to conservation restrictions. Open space preservation is an important hazard mitigation planning tool as such undeveloped land can provide key buffers to hazards like inland flooding.

⁴ Seekonk Master Plan, Volume I Baseline Report, (2012)

Prominent areas of protected open space in the Town include the Runnins River trail network and the Gammino Pond area. Land within Seekonk that is protected by the Seekonk Land Conservation Trust (SLCT) includes the Cushing Conservation Area and the Edna Martin Wildlife Refuge. Seekonk Meadows Park is one of the most recent additions to public recreational spaces in the Town. Opening in 2012 after several years of planning, Seekonk Meadows Park is an eight-acre former landfill which surrounds the Seekonk Public Library⁵.



2.1.3 Water Resources/Water Quality/Utilities

2.1.3.1 Water Resources

Seekonk has an extensive hydrological system that includes groundwater, as well as wetlands and surface waters such as rivers, streams, brooks, lakes, ponds, and reservoirs. Prominent waterbodies and waterways within the Town include Coles Brook, the Runnins River, Ten Mile River, and Burrs Pond, among others. Many of these surface water resources are directly associated with protected open space as defined above or are subject to further regulation under the Seekonk Wetlands Protection Bylaw and regulations thereunder.

⁵ <https://patch.com/massachusetts/attleboro/from-landfill-to-community-park>

2.1.3.2 Water Quality/Utilities

The Town of Seekonk is serviced by a quasi-municipal organization known as the Seekonk Water District. Formally, the Seekonk Water District is an independent governmental entity chartered by the Massachusetts Legislature and is not a department of the Town of Seekonk. The Seekonk Water District was recognized by the Commonwealth of Massachusetts in 1946. Currently, the District provides municipal water for almost the entire developed area of the Town. Sanitary sewerage is served mainly by individual septic systems for residential, commercial, and industrial uses, as the Town does not have a municipal sewer system.

2.1.4 Regional Economy

Seekonk is located on the Rhode Island state border and enjoys interstate commerce with the border that it shares with the City of East Providence. Much of the commercial or mixed-use land within Seekonk is situated along either Route 44 or Route 6, roadways which provide direct access to East Providence or neighboring communities in Massachusetts. From surrounding communities, the Town itself can be accessed through Interstate I-195, as well as Route 6, Route 44, Route 152, and Route 114A. Due in part to the sprawl of residential development in the Town following the transition away from the predominant agricultural land uses in the 20th Century, the town has an unemployment rate of 2.1%, 1.4% below the national average as of December 2019.

2.1.5 Historic and Cultural Resources

The earliest known human inhabitants of Seekonk were the Native American Wampanoag Tribe. Historians approximate that at least three native American Villages comprised the land that is now with the footprint of what is known as the boundaries of modern-day Seekonk. Seekonk was first settled by Europeans in 1636 and was subsequently incorporated as a town in 1812 with ongoing disputes over town boundaries with the City of East Providence over the next century. In addition to inventoried and recorded historic structures and locales, Seekonk is rich with sites of historic events. The Massachusetts Cultural Resource Information System (MACRIS) and National Register of Historic Places identify several important cultural and historic features within the Town. A sample of these features includes:

Table 2: Seekonk Cultural/Historic Resources

Cultural/Historic Resource	MACRIS/National Identifier
Carpenter Homestead	OMB No. 10024-0018
Grist Mill	SEE.D
Isaiah Smart House	SEE.127
Caratunk Wildlife Refuge	SEE.904
Calland Library	SEE.166
Seekonk Schoolhouse	SEE.179

Source: MACRIS

2.1.6 Demographic Data and Projections

In considering exposure to natural hazards it is important to assess population and development trends. As more land is developed, additional impervious surface is created, increasing the flood risk, and decreasing available flood storage area.

Population, household, and employment projections for each municipality in Massachusetts were updated in 2017 and 2018 by the Massachusetts Department of Transportation (MassDOT)⁶. Concerning vulnerable populations, the MassDOT and Census data indicates that by 2020, approximately 29.5% of the population in Seekonk will be age 60 or older, and by 2030, 50.3% percent of the population is projected to fall into this category. Understanding the potential size and composition of vulnerable communities coincides with planning for natural hazards, and CRB workshop attendees prioritized actions that would protect vulnerable populations, including the senior community.

⁶ <https://www.mass.gov/lists/socio-economic-projections-for-2020-regional-transportation-plans#editable-excel-spreadsheets->

3.0 COMMUNITY RESILIENCE BUILDING WORKSHOP

3.1 Introduction to Local Planning Process and Public Participation

The Town commenced the local mitigation planning process by establishing a Core Team to steer the planning process. The Town partnered with MVP Certified Providers at Beals and Thomas, Inc. for assistance in facilitating the public participation and plan preparation elements of the scope. In preparation for completion of the CRB process and HMP update, the MVP Core Team held a kick-off meeting in Seekonk on December 12, 2019. This kick-off meeting discussed the fourteen natural hazards presented in the State Hazard Mitigation and Climate Adaptation Plan, past occurrences of those hazards in Seekonk, and the impact climate change may have on the recurrence and extent of those hazards.

The MVP Core Team corresponded by telephone and email over the course of the CRB and HMP update processes, to discuss the goals and outcomes of the project.

3.1.1 Core Team

The following individuals from the Town of Seekonk. comprised the MVP Core Team:

- Jennifer Miller, Seekonk Conservation Agent, Local MVP Contact
- Neal Abelson, Seekonk Building Department
- Bruce Alexander, Seekonk Finance Department
- John J. Aubin, III, Seekonk Planning Office
- David Cabral, Seekonk Department of Public Works
- Shawn E. Cadime, Seekonk Town Administrator
- Brittney Faria, Seekonk Human Services
- Peter Fuller, Seekonk Public Library
- Sharonlynne Hall, Seekonk Animal Control
- Jessica Horsman, Seekonk Health Agent
- Gerard LaFleur, Seekonk Police Department
- Kate McPherson, Save The Bay
- Scott Olobri, Seekonk Department of Public Works
- John Pozzi, Seekonk Parks and Recreation

In addition, the following facilitators from Beals and Thomas, Inc. participated in the local mitigation planning process:

- Eric J. Las, MVP Certified Provider
- Mary Kate Schneeweis, MVP Certified Provider and Lead Facilitator
- Nick Santangelo, Facilitator
- Andrew Gorman, Facilitator

3.2 Overview of CRB Workshop

The Town chose to conduct the CRB process over the course of a single eight-hour workshop, hosted on January 29, 2020. The central objectives of the workshops were to:

- Define top local natural and climate-related hazards of concern
- Identify existing and future strengths and vulnerabilities
- Develop prioritized actions for the community
- Identify immediate opportunities to collaboratively advance planning actions to increase resilience

The first half of the workshop focused on identifying the top hazards facing the Town, as well as related strengths and vulnerabilities. Facilitators presented demographic data specific to Seekonk from the United States Census Bureau, the American Community Survey, and UMass Boston. In addition, stakeholders were given a presentation and handout summarizing climate change data from the Massachusetts Climate Change Projections, published in December of 2017. As a large group, stakeholders discussed the primary hazards facing Seekonk, reaching agreement on the top hazards as outlined in Section 4.2 herein. Stakeholders then broke up into small groups of 7 to 8 individuals to discuss and identify features that could be considered strengths and/or vulnerabilities unique to the community through the lens of the identified hazards.

The second half of the workshop included an overview of nature-based solutions for stakeholders' consideration when identifying actions. Stakeholder groups developed actions intended to enhance the strengths and mitigate the vulnerabilities identified during the previous workshop. The small groups prioritized these actions and identified a timeframe for completion. Then, as a large group, stakeholders collectively discussed the high priority actions, and identified the top four priority actions for the Town, as outlined in Section 6.0.

Refer to Appendix B for presentations and handouts provided to workshop participants.

3.2.1 Workshop Attendees

The Town invited a total of 61 individuals to participate as stakeholders in the CRB process. These stakeholders included a variety of community members with an interest in resiliency efforts, including representatives of municipal and state government, local businesses, non-profit organizations, and other interest groups. More specifically, representatives from neighboring communities, such as the Town of Attleboro, Massachusetts and the City of East Providence, Rhode Island, were invited in order to provide input on mutual resources and vulnerabilities. Furthermore, a representative of the Southeastern Regional Planning and Economic Development District (SRPEDD), the Regional Planning Agency, participated in the workshops and provided input on regional hazards shared with neighboring communities. Please refer to Table 3 for a list of invited stakeholders, with asterisks denoting those who attended the workshop(s).

Table 3: Final MVP Stakeholder List

Contact	Organization	Attended
Neal Abelson	Seekonk Building Department	*
Jason Adamonis	Seekonk Parks and Recreation	*
James Aguiar	Seekonk Building Department	
Bruce Alexander	Seekonk Finance Department	*
Nelson Almeida	Seekonk Board of Selectmen	
John Alves	Seekonk Community Preservation Committee	
David Andrade	Seekonk Board of Selectmen	
Irene Andrews	Seekonk Human Service Committee	
John J. Aubin, III	Seekonk Planning Office	*
Charles Beauchamp	Seekonk Energy Committee	
Gerald Bessette	Barrington Emergency Management	
Michael Bourque	Seekonk Fire Department	*
Robert Braunsdorf	Seekonk Energy Committee	
Rob Bernardo	Seekonk Water District	*
David Cabral	Seekonk Department of Public Works	*
Shawn E. Cadime	Seekonk Town Administrator	*
Michael Campagnone	Seekonk Conservation Commission	
Ashley Cartwright	Seekonk Human Services and Council on Aging	*
William Clark	Seekonk Cultural Council	
Stephen Coutu	City of East Providence Department of Public Works	
Florice Craig	Seekonk Town Clerk	*
David Darling	Darling Hotels Management	
Carol Ann Days	Seekonk Public Safety Communications	*
Beverly Della Grotta	Seekonk Human Service Committee	
Paul Dumouchel	Attleboro Housing Authority	
Alex Dunwoodie	Seekonk Cultural Council	
David Enos	Seekonk Police Department	
Brittney Faria	Seekonk Human Services and Council on Aging	*
Peter Fuller	Seekonk Public Library	*
Theodora Gabriel	Seekonk Town Assessor	
Keith Gonsalves	Ten Mile River Watershed; RI Rivers Council	*
Sharonlynne Hall	Seekonk Animal Control	*
Michael Healy	Seekonk Fire Department	
Peter Hoogerzeil	Seekonk Town Moderator	
Jessica Horsman	Seekonk Health Department	*
Matthew Jardine	Seekonk Police Department	
David Janik	Massachusetts Office of Coastal Zone Management	
Victoria Kinniburgh	Seekonk Board of Health	
James LaFlame	Seekonk Veterans Services	*
Gerard LaFleur	Seekonk Police Department	*
Sandra Lowery	Seekonk Fire Department	*
Kate McPherson	Save The Bay	*
Jennifer Miller	Seekonk Conservation Office	*
Bill Napolitano	Southeast Regional Planning and Economic Development District	*
Scott Olobri	Seekonk Department of Public Works	*
John Pozzi	Seekonk Parks and Recreation	*
James Roach	Seekonk Planning Board	

Courtney Rocha	Municipal Vulnerability Preparedness Coordinator, Southeast Region	*
Andrea Russo	Seekonk Animal Control	
Gary S. Sagar	Seekonk Zoning Board of Appeals	
Jonathan Schiller	Seekonk Board of Health	
Justin Sullivan	Seekonk Board of Selectmen	
David Sullivan, Jr.	Seekonk Planning Board	
James Troiano	Seekonk Parks and Recreation	
James Tusino	Seekonk Community Preservation Committee	
David F. Viera	Seekonk Board of Selectmen	
Richard Wallace	Seekonk Conservation Commission	
Paul Waltz	Seekonk Energy Committee	
Tom Webb	Seekonk Land Conservation Trust	*
Kourtney Wunschel	Attleboro Wastewater and Treatment Facility	
Christopher Zorra	Seekonk Board of Selectmen	

3.3 Overview of Public Listening Sessions

Two public listening sessions were held over the course of plan preparation. The first listening session, conducted during the drafting of the plan, provided an overview of the results of the CRB process, with a focus on the priority actions. At this meeting, members of the MVP Core Team provided an overview of the MVP and HMP update process, and presented the top actions identified at the CRB workshops. The meeting was televised, and a recording of the meeting was subsequently posted online. Written comments were received and incorporated into the final MVP-HMP Hybrid Report.

A second listening session was held on June 10, 2020 at a regular meeting of the Board of Selectmen. The meeting was televised, and a recording of the meeting was subsequently posted online. The Draft MVP Summary of Findings Report was then made available for public comment from June 15, 2020 through June 29, 2020. During this period, announcements requesting input on the report were posted on the Town's website and social media pages. Public comments received during both listening sessions were incorporated into the Draft HMP Update and the Final Summary of Findings Report submitted to MEMA.

Refer to Appendix E for the agendas for the applicable meetings, the presentations given at the listening sessions, and written comments received during and after the listening sessions.

3.4 Other Local and Regional Planning Initiatives

In addition to the technical information and plans referenced for community context in Section 2.0, the following existing plans, studies, reports, and technical information were considered during the CRB workshop:

- The Town of Seekonk is currently working on an updated Open Space and Recreation Plan (OSRP). These efforts are being led by an ad-hoc committee of Town Staff and volunteers. The OSRP is an important community planning tool which will help prioritize key parcels for protection and/or acquisition and help to evaluate Seekonk's compliance with Americans with Disabilities Association (ADA) design standards.⁷ Such needs are discussed in the environmental priority actions outlined in Section 6.0.
- The Municipal Capital Improvement Committee prepared a 2012 Capital Improvement Study, which inventoried twelve municipal buildings, and evaluated the types of improvements that will be necessary for these buildings. Furthermore, the Committee maintains a Timeline and Procedure for Updating the Five-Year Capital Plan. The Town has several large-scale capital projects either currently underway, including construction of a new animal shelter and expansion of the Aitken Elementary School, or scheduled to begin in the next couple years, such as design, permitting, and construction of Phase II of the Health and Human Services building, a new Fire Station in the south end of town, and a new DPW facility. Such needs are discussed in the infrastructural priority actions outlined in Section 6.0.
- Seekonk adopted the Community Preservation Act (CPA) designation in 2009 with a 1.25% tax surcharge. The Seekonk Community Preservation Committee makes recommendations on CPA-eligible projects for consideration at Town Meeting. Such projects include open space protection, historic preservation, affordable housing, and outdoor recreation.
- Working in conjunction with SRPEDD, Seekonk completed a final draft of its Housing Production Plan (HPP) in 2010. The local HPP noted the need for additional opportunities for elderly housing, affordable housing for young professionals and/or young families, limited supply of general affordable housing, and general zoning constraints. Such needs are discussed in the societal priority actions outlined in Section 6.0.

⁷ https://www.seekonk-ma.gov/sites/seekonkma/files/uploads/meeting_agenda.osrp_.2020.03.23.pdf

4.0 TOP CLIMATE-RELATED HAZARDS

For each known natural hazard identified, a local HMP documents past occurrences of hazards (if applicable), outlines the potential impacts these hazards may have, and identifies the geographic extent of vulnerability to those hazards. In preparation of the MVP-HMP Hybrid, the Town of Seekonk evaluated the fourteen natural hazards outlined in Massachusetts Integrated State Hazard Mitigation and Climate Adaptation Plan (SHMCAP) relative to those criteria. The SHMCAP complies with FEMA requirements that states maintain hazard mitigation plans to maintain eligibility for disaster recovery funding. In September 2018, Massachusetts became the first state to integrate climate adaptation into its state HMP. The SHMCAP identifies the risk various natural hazards pose to the following critical sectors: populations, government, the built environment, natural resources and the environment, and the economy.

Table 4: Federal Disaster Declarations for Bristol County (2010 - 2020)

Disaster Name	Date of Event	Disaster Number	Hazard Type
Severe Storm and Flooding	March 12 - April 26, 2010	DR-1895	Inland Flooding
Tropical Storm Irene	August 27 - 29, 2011	DR-4028, EM-3330	Hurricane/Tropical Storms
Hurricane Sandy	October 27 - November 8, 2012	DR-4097, EM-3350	Hurricane/Tropical Storms
Explosions (Boston Marathon Bombings)	April 15 - 22, 2013	EM-3362	Non-Natural
Severe Winter Storm, Snowstorm, and Flooding	February 8 - 9, 2013	DR-4110	Severe Winter Storms/Nor'easters, Inland Flooding
Severe Winter Storm, Snowstorm, and Flooding	January 26 - 28, 2015	DR-4214	Severe Winter Storms/Nor'easters, Inland Flooding
Severe Winter Storm and Flooding	March 2 - 3, 2018	DR-4372	Severe Winter Storms/Nor'easters, Inland Flooding, Coastal Flooding
COVID-19 Pandemic	January 20, 2020 - ongoing	DR-4496, EM-3438	Non-Natural

Source: FEMA

Table 5: Governor's State of Emergency Declarations for Massachusetts (2011 - 2020)

Emergency Name	Declaration Period	Hazard Type
Winter Storm	January 12 - 13, 2011	Severe Winter Storms/Nor'easters
Tornadoes	June 1 - 19, 2011	Tornadoes
Hurricane Irene	August 26 - September 6, 2011	Hurricane/Tropical Storms
Nor'easter	October 29 - November 7, 2011	Severe Winter Storms/Nor'easters
Hurricane Sandy	October 27 - November 1, 2012	Hurricane/Tropical Storms
Winter Storm	February 8 - 13, 2013	Severe Winter Storms/Nor'easters, Inland Flooding
Winter Storm	January 26 - 28, 2015	Severe Winter Storms/Nor'easters, Inland Flooding
Winter Storm	February 9 - 25, 2015	Severe Winter Storms/Nor'easters
Coastal Storm	March 3 - 6, 2018	Severe Winter Storms/Nor'easters, Inland Flooding, Coastal Flooding
Merrimack Valley Gas Explosion	September 14 - October 4, 2018	Non-Natural
COVID-19 Pandemic	March 10, 2020 - ongoing	Non-Natural

Source: MEMA

4.1 Introduction to Known Natural Hazards

4.1.1 Inland Flooding

Inland flooding is defined as of flood events which lack a coastal influence which may be the result of moderate precipitation over several days, intense precipitation over a short period, or melting snow, among other factors. Inland or riverine flooding may occur during storm events that cause non-tidal rivers and streams to overtop their banks and inundate adjacent areas. Intense precipitation also has the potential to overwhelm stormwater systems that are undersized, resulting in flooded roadways.

Of particular concern to stakeholders are the areas surrounding the Runnins River corridor. FEMA maps land surrounding this river as both the A and AE flood zones, representing the largest tract of contiguous mapped flood zone within the Town. Land uses within these flood zones range from residential and commercial development to vacant, forested land. The headwaters of the Runnins River emerge from a wetland system to the east of Prospect Street and to the South of Walnut Street. The extent of FEMA-mapped flood zone surrounding the Runnins River extends to its headwaters, bifurcated both undeveloped land and developed areas, including major roadways.

The Town of Seekonk participates in the National Flood Insurance Program (NFIP). As required for participation in the program, the Town adopted a floodplain management ordinance that meets the NFIP criteria, as Section 6.2 of the Zoning By-Laws of the Town of Seekonk Massachusetts, reprinted April 2019. This ordinance adopts the applicable FIRMs as an overlay district, called Wetlands and Floodplain Protection District

A total of 28 flood insurance policies are in force in the town, of which 19 are single-family residential, with 14 losses paid through the NFIP. Of those 28 policies, three are defined as Repetitive Loss properties, or properties where “*any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling ten-year period, since 1978.*”⁸

Table 6: Repetitive Flood Loss Properties under the NFIP (as of June 2020)

Number of Repetitive Flood Loss Properties	Number of Losses	Building	Contents	Total Paid
3	5	\$81,695.64	\$23,182.94	\$104, 878.58

Source: Massachusetts Department of Conservation and Recreation

In order to estimate the potential losses resulting from inland flooding in Seekonk, B+T conducted a GIS analysis of structures located within the area currently designated by FEMA as having a 1% annual chance of flooding. B+T downloaded current floodplain data from FEMA, as well as building footprint and assessor’s parcel data available from the Massachusetts Bureau of Geographic Information (MassGIS). The building footprints were digitized by MassGIS based on aerial imagery from 2011 and 2012, supplemented with Light Detection and Ranging (LiDAR) data collected from 2002 to 2011, and updated through 2016. B+T visually confirmed and updated these data using current aerial imagery. Structures located partially within the flood zone were not included in this analysis. A total of 21 structures were located entirely within the floodplain. Upon identification of these buildings, ArcMap software was used to intersect the buildings with local assessment data, which reported the value of the structures on the property. For parcels containing multiple buildings, property record cards were reviewed to approximate the value of only the buildings located entirely within the floodplain. The value of the building contents was estimated using methodology consistent with FEMA’s HAZUS program. More specifically, the contents of residential buildings was estimated at 50% of the building value, the contents of commercial buildings estimated at 100% of the building value, and the contents of industrial and government/institutional buildings was estimated at 125% of the building value. The results of this analysis are tabulated below.

⁸ https://www.fema.gov/txt/rebuild/repetitive_loss_faqs.txt

Table 7: Estimated Value of Losses in the 100 Year Floodplain

	Residential	Commercial	Industrial	Governmental /Institutional	Total Value
Building Value	\$949,700	\$2,414,500	\$20,600	\$25,400	\$3,410,200
Contents Value	\$474,850	\$2,414,500	\$25,750	\$25,400	\$2,940,500
Total Estimated Losses	\$1,424,550	\$4,829,000	\$46,350	\$50,800	\$6,350,700

Source: Local assessor records, FIRM maps

Note that inland flooding is not limited to defined flood zones and may result from failing or compromised infrastructure such as clogged catch basins, dam failure, and other anthropogenic features. Natural causes of flooding may include beaver dams or other disruptions to the flow or storage of water. CRB workshop attendees noted a direct correlation between precipitation events and the hazard of inland flooding. During heavy rain events, undersized culverts, clogged catch basins, and other stormwater infrastructure on both public and private land. As recent as 2019, Warren Avenue along the Seekonk and East Providence town/state line was temporarily closed for culvert repairs associated with the Runnins River, detouring interstate travel for a period of 30 days⁹. The contractors retained by the City of East Providence installed “two 3-foot-high by 7-foot-wide precast concrete box culverts to the east of the existing culvert” along the Runnins River to alleviate frequent flooding¹⁰.

There are three dams regulated by the Massachusetts Department of Conservation and Recreation, Office of Dam Safety located within the Town of Seekonk. The hazard classification for each dam is provided in the table below. The hazard classification is based upon the potential for loss of life and damage to property that failure of that dam could cause downstream. Such failure may alter flow conditions such that the potential for flooding changes. For instance, in summer 2017, the wooden boards of the sluiceway adjacent to the Attleboro Dye Works dam structure failed, allowing the pond impoundment to drain completely and the river to flow in a more confined, natural riverbed through the lower elevation of the sluiceway. Additional hydraulic restrictions in the Town, such as the former bridge abutments on the Runnins River, may also inhibit flow and contribute to flooding.

⁹ Runnins River Detour Plan, Reporter Today, June 27, 2019 Retrieved from: <http://reportertoday.com/stories/city-to-commence-runnins-river-culvert-project-roadway-to-close-for-30-days,27394>

¹⁰ County Street in Seekonk near state line is closed for road work, The Sun Chronicle. July 22, 2019. Retrieved from: https://www.thesunchronicle.com/news/local_news/county-street-in-seekonk-near-state-line-is-closed-for/article_9a25389f-8e83-5a17-a2be-01d4d319c318.html

Table 8: Hazard Classification of Seekonk Dams

Dam Name	Impoundment and Waterway Name	Hazard Class**	Ownership
Attleboro Dye Works Dam	Ten Mile River Pond	Low Hazard	Town
Old Grist Mill Pond Dam	Old Grist Mill Pond (Runnins River)	High Hazard	Private
Burrs Pond Dam	Burrs Pond (Runnins River)	Low Hazard	Town

Source: Massachusetts Department of Conservation and Recreation, Office of Dam Safety, Town of Seekonk

Participants of the CRB workshop expressed particular concern related to inland flooding in light of climate change projections that there will be an annual increase of 1 to 3 days in with greater than one inch of precipitation by 2050s for the Narragansett Bay & Mt. Hope Bay Basin¹¹.

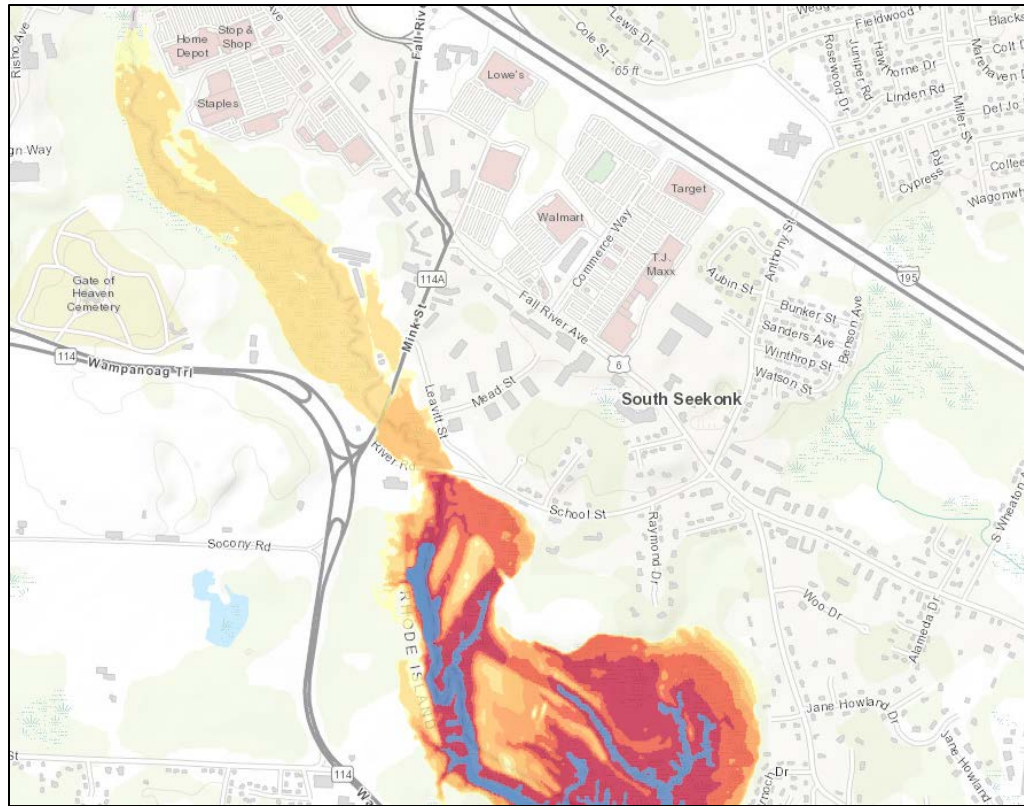
4.1.2 Coastal Flooding

Coastal flooding, unlike inland flooding, results from a coastal influence and may occur in areas such as bays, estuaries, coastal rivers, and salt marshes, among others. The impact and extent of coastal flooding may be exacerbated by tidal influence, storm surge, or a combination.

Coastal flooding was noted by participants of the CRB workshop as a hazard that may directly impact adjacent coastal communities (e.g., portions of East Providence) and indirectly impact Seekonk. Although not directly contiguous with the Town, stakeholders acknowledge that coastal flooding may impact resources within Seekonk, particularly within the AE Flood Zone to the west of Marnoch Drive and along the Swansea town line near the start of the Palmer River.

The Massachusetts Sea Level Rise and Coastal Flooding Viewer developed by the Massachusetts Office of Coastal Zone Management (CZM) StormSmart Coasts Program maps portions of South Seekonk adjacent to the Runnins River as being potentially vulnerable to flooding in various sea level rise scenarios. The areas to the northwest of Route 114A, while only anticipated to be impacted in four feet of sea level rise or greater, lie within areas close to residential and commercial development.

¹¹ Massachusetts Climate Change Projections



© MA CZM StormSmart, Color Gradient Approximating Potential Intensity of Coastal Storm Impacts. GIS Tile Not to Scale

4.1.3 Average and Extreme Temperatures

Heat was identified by stakeholders as having a disproportionate impact to vulnerable populations, such as the elderly who make up 22% of Seekonk's residents. Heat-related illnesses. CRB workshop attendees anticipate an increased demand in utilizing municipal buildings as cooling stations, including the senior center. Subsequent secondary impacts of extreme heat anticipated in Seekonk include a greater demand on the electrical grid from reliance on conventional air conditioners.

Extreme cold temperatures may also have impacts on the Town's infrastructure from freezing and thawing, including long-term damage to roadways and subsurface pipes. Such cold temperatures may have an impact on the health and wellbeing of vulnerable residents, particularly those unable to afford the costs of heating.

The geographic extent of this hazard is generally the same throughout the Town of Seekonk, although impervious and developed areas may result in localized areas of high temperature relative to the surrounding air, known as the heat island effect.

Table 9: Regional Record Temperatures

	Temperature	Date
Record high temperature	104°F	August 1975
Record low temperature	-17°F	February 1934

Source: National Weather Service, NOWData - NOAA Online Weather Data, Providence Area, RI

As noted in the SHMCAP, average temperatures in Massachusetts are likely to increase significantly over the next century as a result of climate change. Annually, the Narragansett Bay & Mt. Hope Bay Basin is projected to experience 7 to 29 more days with temperatures above 90°F by 2050s. Furthermore, winters are projected to have 7 to 20 fewer days with temperatures below 32°F by 2050s.

4.1.4 Drought

Droughts are defined as periods of prolonged lack of precipitation. Risks posed by drought may overlap by those posed by heat, but also include the potential for decreased availability of water supply as groundwater-fed sources evaporate. Drought may also result in an increased risk of wildfires as a result of dry trees and brush in open space areas, as well as a decrease in agricultural production. While locations such as open space, water supply areas, and agricultural land are more vulnerable to drought, the geographic extent of this hazard is generally the same throughout the Town of Seekonk.

The Massachusetts Drought Management Plan dated September 2019¹², evaluates drought based on six indices, including precipitation, streamflow, groundwater, lakes and impoundments, fire danger, and evapotranspiration.

Table 10: Drought Classification Levels

Drought Level	2001-2019 Classification	2019 Classification	Index Percentile Ranges
Level 0	Normal	Normal	>30
Level 1	Advisory	Mild Drought	≤30 and >20
Level 2	Watch	Significant Drought	≤20 and >10
Level 3	Warning	Critical Drought	≤10 and >2
Level 4	Emergency	Emergency Drought	≤2

Seekonk is located in the Southeast Massachusetts Drought Region. A history of recorded droughts in the Southeast Region since 2001 is included below.

¹² <https://www.mass.gov/doc/massachusetts-drought-management-plan/download>

Table 11: History of Drought Declarations in the Southeast Region, 2001 - 2020

Begin Date	End Date	Drought Level
12/28/2001 - 1/31/2003		
December 2001	February 2002	Advisory
March 2002	May 2002	Watch
June 2002	July 2002	Advisory
August 2002	September 2002	Watch
October 2002	November 2002	Advisory
December 2002		Normal
10/1/2007 - 3/18/2008		
October 2007	March 2008	Advisory
10/1/2014 - 11/30/2014		
October 2014	November 2014	Advisory
7/1/2016 - 4/30/2017		
June 2016		Advisory
July 2016		Watch
August 2016	January 2017	Warning
February 2017		Watch
March 2017		Advisory

Source: Department of Conservation and Recreation

Climate change projections for the Narragansett Bay & Mt. Hope Bay Basin project a summer increase in consecutive dry days, with up to 2 additional days with less than 1 mm of precipitation.

4.1.5 Coastal Erosion

Coastal erosion includes the deterioration or breakdown of shoreline systems as a result of the movement of sand, human alteration, sea level fluctuations, wind, and other forces. Coastal erosion is a noted hazard for communities with a coastal influence abutting South Seekonk. However, coastal erosion is not anticipated to be a direct hazard to the Town. While not a direct hazard to the Town, stakeholders acknowledge that coastal resiliency, or lack thereof, could result in an overall impact in inter-municipal resources

4.1.6 Wildfire

A wildfire is a fire that is generated within wooded areas, grasslands, or other undeveloped land. Wildfires in Massachusetts are generally the result of natural occurrences, human activity, or prescribed burns.

Based on the Wildfire Hazard Potential¹³ (WHP) GIS raster data developed by the U.S. Forest Service's (USFS) Fire Modeling Institute, the Town of Seekonk ranges from low to very low risk for wildfires based on national averages (i.e., compared to all states in the conterminous US). This GIS model was prepared by the USFS to help inform assessments of wildfire risk or prioritization of fuels management needs across large landscapes throughout the US.

However, in the context of state data sets, the SHMCAP notes that Seekonk ranges from low to high levels of risk when compared to other areas of Massachusetts. The areas which are subject to the highest risk for wildfire are the large tracts of forested land throughout the Town. Dead trees, leaf litter, and other combustible material associated with forested areas pose risks for the generation of wildfire. Unfragmented or contiguous tracts of undeveloped land function as vectors for wildfire generation and travel. Many of these forested areas are either town-owned or are under the stewardship of a land trust.

The 2018 SHMCAP defines a “wildfire behavior triangle”, noting that:

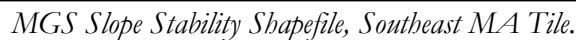
The “wildfire behavior triangle” reflects how three primary factors influence wildfire behavior: fuel, topography, and weather. Each point of the triangle represents one of the three factors, and arrows along the sides represent the interplay between the factors. For example, drier and warmer weather with low relative humidity combined with dense fuel loads and steeper slopes can result in dangerous to extreme fire behavior.

Potential impacts from wildfire may include injury, loss of life, property damage, and damage to various vegetated areas. Secondary impacts, including disruption to electrical infrastructure and communication systems, may result from wildfires when such hazards cross the wildland-urban interface—what the SHMCAP notes as the “line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels”.

4.1.7 Landslides

Landslides include various natural land-moving occurrences, including rockfalls, slope failures, and debris flows. According to the Massachusetts Geologic Survey's (MGS) Slope Stability Map (2013), most of the land within the Town is considered low risk for landslides with few areas mapped as moderate to high risk. Below represents a sample GIS image of a portion of Seekonk which is more vulnerable to landslides as mapped by the MGS. Such sensitive areas include land to the northwest of residential development along the secondary streets off of Central Avenue.

¹³ <https://www.arcgis.com/home/webmap/viewer.html?useExisting=1&layers=fc0ccb504be142b59eb16a7ef44669a3>



As defined by the SHMCAP, a tsunami generally consists of an onshore surge of water or a string of waves. Due to the lack of coastal influence for much of Seekonk, the Town is not at a high risk for tsunamis when compared to neighboring towns in Massachusetts and Rhode Island. Tsunami events may have an adverse impact in waterbodies or waterways within Seekonk which abut the neighboring coastal communities.

Invasive species are non-native flora and fauna which have the potential to degrade ecosystems and adversely impact human well-being. For example, some aquatic plants such as the non-native water chestnut (*Trapa natans*) will outcompete native plants and can potentially foster the eutrophication of waterbodies. Such algal growth can subsequently pose a risk to human health.

The Town of Seekonk hosts many plant species noted in the Massachusetts Invasive Plant Advisory Group. Such species include purple loosestrife (*Lythrum salicaria*), sycamore maple (*Acer pseudoplatanus*), Water chestnut (*Trapa natans*), tree-of-heaven (*Ailanthus altissima*), and Asiatic bittersweet (*Celastrus orbiculatus*), among other species. Non-plant invasive species throughout the town include the Gypsy moth (*Lymantria dispar dispar*), the Hemlock wooly adelgid (*Adelges tsugae*), and the emerald ash borer (*Agrilus planipennis*), among others.

Recent examples of rampant invasive species Seekonk include the gypsy moth caterpillar (*Lymantria dispar dispa*) defoliation events in recent decades. In 2011, Seekonk was one of four communities to participate in a study examining the impacts of this species on forested communities¹⁴. Common hazards associated with these defoliation activities include dead or dying trees which may pose risk to electrical utilities in the form of overhead wires or will provide a disproportionate amount of fuel for wildfires when compared to pre-infestation forest conditions.

Vulnerability to invasive species may be higher within open space and forested areas, as well as open water, but the potential for occurrence is generally throughout the Town.

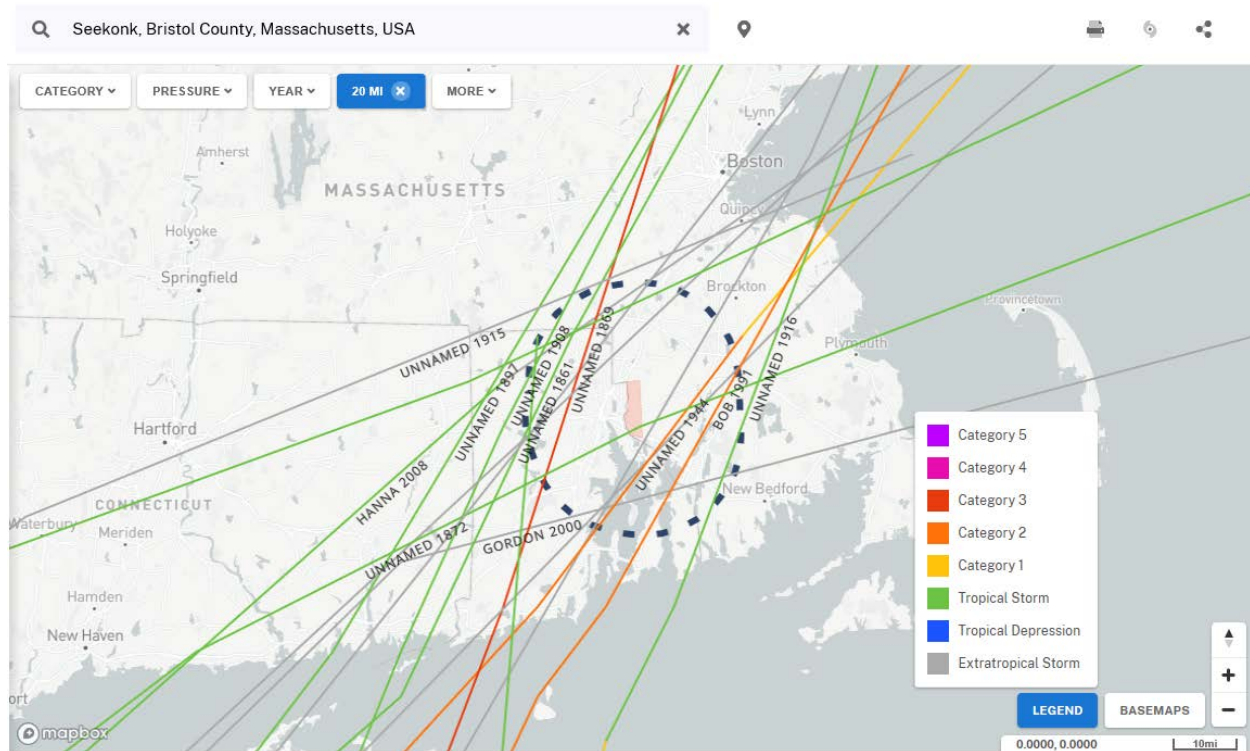
4.1.10 Hurricanes/Tropical Storms

Hurricanes and tropical storms are natural hazards which form in specific oceanic conditions requiring certain wind speeds, temperatures, and other climatic factors. The Town observes the impacts of hurricanes and tropical storms in the form of downed trees, hazardous travel conditions, and impact to the electrical grid. Many of the recent tropical storms and hurricanes to pass through Seekonk in the last decade have resulted in the loss of power for many residents, businesses, and municipal buildings. For example, during one point during the events of Tropical Storm Irene, 100% of the Town was without power for a period of time¹⁵.

The potential area of impact of hurricanes is uniform across the Town of Seekonk. The last hurricane track to pass directly through Seekonk was an unnamed 1872 storm, which was graded as a tropical storm at the time. Seventeen hurricanes, seven of which were tropical storms, and six of which were extratropical have had their centers pass within ten miles of Seekonk. However, the regional impacts of hurricanes may be felt much more widely; most recently federal disasters were declared for Bristol County for Tropical Storm Irene and Hurricane Sandy.

¹⁴ <https://www.sciencedaily.com/releases/2011/09/110907163917.htm>

¹⁵ https://www.thesunchronicle.com/news/local_news/what-if-the-worst-happened-here-preparations-and-forecasting-for-hurricanes-have-changed-since-1938/article_bd5487d2-d43e-5ed6-a86d-1fb4d5017a4d.html

NOAA Historical Hurricane Tracks¹⁶

4.1.11 Severe Winter Storms/Nor'easters

Severe winter storms and nor'easters include intense weather events ranging from heavy snowfall to sustained blizzards. Noted impacts from severe storms and extreme winter weather, such as high winds or ice and snow, were considered separately. These hazards pose concerns related to access during storm events, both for emergency responders and evacuees, as well as the interruption of utility services (e.g. downed overhead wires). Vulnerabilities with major access routes were noted by CRB workshop attendees as there are limited roadways passing through Seekonk's midpoint to provide uninhibited travel between both the north and south halves of the Town. The potential area of impact of severe winter storms and nor'easters is uniform across the Town of Seekonk.

¹⁶NOAA, National Centers for Environmental Information, Historical Hurricane Tracks, 2020

4.1.12 Tornadoes

Tornadoes are violent atmospheric storms with a rotating column of air that extends from the base of a cumulonimbus cloud to the ground. They may result from thunderstorms. The Town of Seekonk is at relatively low risk for tornadic activity. However, due to the infrequency of tornadoes in the Commonwealth of Massachusetts, the SHMCAP notes that communities are often unprepared for the impacts of these extreme storm events. Municipal- and privately-owned land are vulnerable to tornados as they may damage buildings, infrastructure, cause injury, leave behind downed trees, and other hazards. However, the potential area of impact of tornadoes is uniform across the Town of Seekonk.

4.1.13 Other Severe Weather

Other severe weather events posing hazards to the Town include intense precipitation events, heavy winds/wind advisories, and thunderstorms.

4.1.14 Earthquakes

Often occurring along subsurface fault boundaries, earthquakes are movements of the earth's surface that can pose a risk to human health, man-made structures, and various infrastructure. As noted in the SHMCAP, earthquakes in New England are considered 'intraplate' earthquakes as they occur deep within the North American Plate. The ground-shaking components of earthquakes may cause structural damage to buildings and infrastructure. The potential area of impact of earthquakes is uniform across the Town of Seekonk.

4.2 Top Natural Hazards Identified by Stakeholders

After discussion, workshop participants identified the top climate-related hazards facing the Town of Seekonk as the following:

- Inland Flooding
- Extreme Winter Weather
- Severe Storms
- Heat/Drought
- Invasive Species

4.3 Critical Facilities and Specific Areas of Concern

Refer to Figure 3 for a map of critical facilities relative to hazards with specific areas of impact. Critical facilities within the Town of Seekonk include the following:

Table 12: Critical Facilities

Name	Address	Facility Type
Public Water Supply		Water Supply Well
Public Water Supply		Water Supply Well
Our Lady of Mount Carmel	984 Taunton Avenue	Place of Worship
Our Lady Queen of Martyrs	5 North Street	Place of Worship
Motoring Technical Training Institute	1241 Fall River Avenue	School
George R Martin School	445 Cole Street	School
Mildred Aitken School	165 Newman Avenue	School
Dr. Kevin M Hurley Middle School	650 Newman Avenue	School
Seekonk High School	261 Arcade Avenue	School
Seekonk Police Department	500 Taunton Avenue	Municipal Facility
Seekonk Fire Department	30 Pine Street	Municipal Facility
Seekonk Fire Department	Newman Avenue	Municipal Facility
Seekonk Town Hall	100 Peck Street	Municipal Facility
Attleboro Dye Works Dam	Off Pond Street	Dam
Old Grist Mill Pond Dam		Dam
Burr's Pond Dam	Leonard Street	Dam
Pond Street Bridge	Pond Street	Bridge
Tall Pines Lane Culvert	Tall Pines Lane	Culvert
Route 152 Culvert	Route 152	Culvert
Arcade Avenue Culvert	Arcade Avenue	Culvert
Route 44 Bridge	Taunton Avenue	Bridge
Route 144A Bridge	Fall River Avenue	Bridge
Route 144A Bridge	Fall River Avenue	Bridge
Route 6 Bridge	Highland Avenue	Bridge
Route 195 Bridge	Anthony Street	Bridge
Former Bridge Abutments	Leavitt and Mink Streets	Restriction

In identifying features for consideration of action items, stakeholders further identified the following areas of concern. For clarity, the features identified on the risk matrix have been noted in underlined text. Items that were noted by participants as both strength and vulnerabilities combined have been included in this list.

Refer to Appendix B for the base map provided to workshop participants, and Appendix C for the participatory mapping completed during the workshop.

4.3.1 Geographic

- CRB workshop attendees noted the physical implications of the north-south polarization of town. During periods of traffic congestions or when natural hazards, stakeholders are concerned that down trees and flooding may separate vulnerable populations sequestered in either portion of Town.

4.3.2 Infrastructural

- Various infrastructure, including bridges, culverts, and dams were noted by stakeholders as strengths where recently upgraded and improved, but vulnerabilities where aging. Action items formulated on these topics ranged from upgrading general infrastructure resiliency to future storm events to evaluating site-specific needs for various facilities and features.
- Stakeholders identified utilities as both strengths and vulnerabilities for the Town. Features under the umbrella of utilities in the discussion included electricity generation (e.g., exploring rooftop solar) and transport as well as communication systems, including telephone and internet access.
- Transportation was noted by stakeholders as both a strength and vulnerability for the Town. Aspects of transportation evaluated included preventative maintenance of roadways (identifying hazard trees, plowing, culvert repairs, etc.). The lack of transportation opportunities into vulnerable population centers was also noted.
- Water infrastructure, including the existing municipal well fields and distribution infrastructure, were examined by Stakeholders as both a strength and vulnerabilities. Stakeholders specifically considered feasibility studies to provide better protection of municipal wellfields to flood events. Also discussed by Stakeholders was the possibility of exploring inter-municipal water distribution agreements with neighboring towns, regardless of state affiliation.
- Stakeholders identified stormwater management systems as an infrastructural vulnerability. Action items listed relative to these vulnerabilities included both water quality assessment of pre- and post-storm events, and ongoing maintenance of storm drains and basins.
- Septic systems and waste management was recognized by Stakeholders as one of the Town's vulnerabilities to the identified natural hazards. Stakeholders identified activities to promote resiliency of such systems, including assessing existing septic systems within flood zones and evaluating the potential for a municipal waste management system.
- Workshop stakeholders noted public safety as both a vulnerability and a strength of the Town. Participants discussed investigating resilient design alternatives for the south-end fire state and conduct a study of coverage of public safety radio network, among others.
- Emergency management was noted as both a strength and vulnerability for

Seekonk. Stakeholders identified action items including evaluating municipal buildings for shelter and generator capacity, maintain and upgrade the existing emergency response plan, and assess existing evacuation routes.

- Lastly, Stakeholders identified the athletic fields as a vulnerability for Seekonk. Specifically, potential action items were discussed, including improving stormwater management at sports fields for flood control and to develop a plan for severe storm damage outside of the DPW general maintenance scope.

4.3.3 Societal

- Stakeholders identified both senior and disabled populations as vulnerabilities for the Town. Several action items were discussed by the groups for this vulnerability, including, evaluating centralized locations for affordable senior housing on municipal and other land as well as performing an ADA audit of public buildings. Please refer to the Risk Matrix for a comprehensive list of high-priority action items for senior and disabled populations.
- Homeless and transient communities were identified by stakeholder groups as societal vulnerabilities. Stakeholders recommended actions including determining population size, general locations, potential needs to better inform emergency response programs.
- Non-resident populations, such as those who work but do not reside in Seekonk were noted as a vulnerable facet of the Town, due to the limited area. Stakeholders noted actions such as evaluating the capacity of existing shelters to accommodate excess population working in and traveling through the Town.
- Stakeholders identified the non-English speaking community as a vulnerability and considered the possibility of assessing multi-lingual forms of emergency notifications.
- Commerce and agriculture were discussed by Stakeholder groups as vulnerabilities to natural disasters. Stakeholders discussed the possibility of developing a plan for businesses to better operate during emergency situations, among other items.
- Stakeholders considered the form of government a potential vulnerability and recommended explore alternative forms of government that improve representation.
- Another societal vulnerability noted by Stakeholders included domestic and farm animals with an emphasis on developing plan for pet/domestic animal care during evacuation and shelter situations.
- Stakeholders also identified public housing as another vulnerability with opportunities to increase access to cooling stations.

4.3.4 Environmental

- Stakeholder groups recognized surface water quality as a priority for the Town, including the need to assess potential areas for retrofitting stormwater management systems to increase water quality treatment and improve infiltration. Groups also considered developing and maintaining stormwater regulations.
- Conserved land was identified as both a strength and a vulnerability with discussions to potentially acquire additional open space parcels, particularly those connecting Town-owned open space.
- Stakeholders identified aquifers and the public water supply as strengths and vulnerabilities. Recommendations were made to assess the yield of water supply wells relative to projected development trends and other items such as the evaluation additional land acquisition in vicinity of public water supply.
- Invasive/Pest Management was noted as vulnerability with recommendations from Stakeholders to include open space in town wide invasive species/pest management plan and to educate public on prevention of invasive species spread
- Stakeholders also reviewed issues relative to high groundwater, with considerations to perform analyses (or hire consultant to do so) regarding groundwater elevation analysis and plan for future impacts (and effects on development).
- Habitat connectivity was also reviewed as both a vulnerability and a strength with considerations for assessing opportunities for critter crossings and to identify and acquire open parcels connecting town-owned open space.

5.0 CURRENT STRENGTHS AND ASSETS

The following departments in the Town of Seekonk maintain existing policies, programs and resources related to hazard mitigation and preparedness. Potential expansions and improvements to these existing policies and programs are discussed further in Section 6.0.

Department, Board, or Committee	Role	Existing Policies, Programs, and Resources
Administration	Responsible to the Board of Selectmen for the proper discharge of all duties of the office and for the proper administration of all town affairs placed under his/her charge by or under the charter, the Board of Selectmen, By-Law or the vote of town meeting.	Implementation of town policies established by the Board of Selectmen
Building Inspector	Examine plans, issue permits and perform inspections that will comply with the laws of both the Town of Seekonk and the Commonwealth of Massachusetts to ensure a safe public and private environment for the residents and individuals who work here and those who use our community and its services.	State Building Code and the Specialized Codes contained therein, Commonwealth of MA Electrical Code, Commonwealth of MA Fuel, Gas, and Plumbing Codes, Town Zoning By-Laws, and applicable sections of the Town By-Laws
Conservation Commission	Protect Seekonk's wetland and water resources to prevent pollution, improve flood control, and protect drinking water, wildlife, and fisheries, as well as to preserve land for open space and passive recreation. Acquire and manage open space and to encourage and monitor conservation and agricultural preservation restrictions	Massachusetts Wetlands Protection Act, establishing jurisdiction over wetland resources in Seekonk and all land 100 feet adjacent to the wetlands and 200 feet of perennial streams, Maintain and implement Open Space and Recreation Plan
Fire Department	Protect life and property by providing the best emergency services possible, which lends itself to a safe environment for those who live in, work in, or visit the Town of Seekonk	Maintain well educated and properly trained firefighting personnel with up to date equipment.
Health Department	Protect the public health safety and the environment for the residents of Seekonk.	310 CMR 15.00: Septic Systems ("Title 5") Maintain lists of registered Engineers and sanitarians, septic installers, and Title V inspectors
Human Services & Council on Aging	Assist in the well-being of Seekonk's older population and residents of any age who are in need of social services due to economic hardship, health issues, family circumstances, or personal loss.	Provide community service, and health clinics, as well as assistance to qualified residents in need of food, clothing, housing, health care, transportation, legal or tax services directly or by introducing them to a network of federal, state, and local support services.

Parks & Recreation	Provide recreation opportunities for the Town of Seekonk residents through creation and maintenance of high-quality programs, facilities, and community special events.	diverse services and programs that promote citizen involvement and strong sense of community
Planning Board	Review plans submitted by applicants who want to develop their land as residential, commercial, or other uses. Guide any proposed zoning changes through a detailed procedure outlined in the Massachusetts General Laws. Town Meeting, and the Attorney General's office then approves any changes for the town.	Massachusetts General Laws, the Seekonk Subdivision Rules and Regulations and the Seekonk Zoning By-Laws Review and development of the Town's Master Plan or Comprehensive Plan to address future land use, economic development, sustainability, open space and recreation, housing, public facilities and services, and transportation.
Police Department	Provide community leadership and a safe living and working environment through the preservation of peace and public order, extending to all citizens' fairness and respect	Maintain well educated and properly trained police personnel with up to date equipment.
Public Safety Communications	Dispatching police officers, fire apparatus and emergency medical services for the Town of Seekonk utilizing the most modern technology to enhance the processing of vital information.	Combined Dispatch Center comprised of 9 dispatchers that operate the Communications center 7 days a week, 24 hours a day, 365 days of the year
Public Works		Illicit Connections and Discharges to the Storm Drain System
Seekonk Water District	Independent governmental entity chartered by the Massachusetts Legislature, not a department of the Town of Seekonk.	Ensure safe and reliable water supply through constant water testing and maintenance of state-of-the-art treatment plant

Adapted from Town of Seekonk website: <https://www.seekonk-ma.gov/departments>

In identifying features for consideration of action items, stakeholders identified the following strengths and assets in the Town of Seekonk. For clarity, the features identified on the risk matrix have been noted in underlined text. Items identified by Stakeholders as both strengths and vulnerabilities simultaneously have been listed in Section 4.3.

5.1 Infrastructural

- Infrastructural strengths identified by Stakeholders included town buildings, the extent of buildings with existing generators, and other municipal structures. Noted ways to enhance these strengths include upgrade/update heating systems in older buildings and assess overall resiliency of buildings to storm events.

5.2 Societal

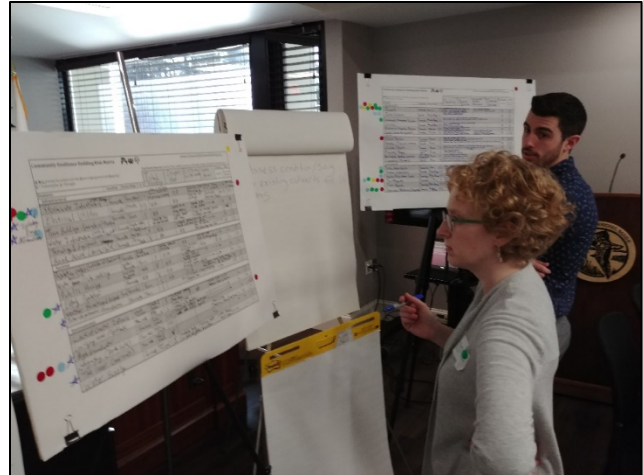
- Children and youth services were identified as a Town strength by Stakeholders.
- Communication was noted as a strength, particularly the existing emergency response plan which has room for enhancement.
- Seekonk also maintains strong mutual aid agreements and a public safety department as noted by stakeholders.
- Geographically, the major population centers of Seekonk are located outside of flood zones.
- Stakeholders also note Seekonk's strength in utilizing weather forecasting to facilitate emergency response time and the ability to prioritize areas for winter plowing.

5.3 Environmental

- Stakeholders identified multiple aspects of municipal government that were defined as strengths, including the Open Space and Recreation Plan, the Conservation Department, and Parks and Recreation.
- Seekonk maintains town-owned open space, which provides opportunities for passive recreation.
- Stakeholders also note the lack of coastal influence as a strength of the town in that the municipality does not share the same risks as neighboring coastal communities.
- Much of the Town's low-lying areas, flood zones, and wetlands are situated within town-owned open space.
- Lastly, stakeholder groups also note plant diversity and the various vegetative communities throughout Town as a distinct environmental strength.

6.0 TOP RECOMMENDATIONS TO IMPROVE RESILIENCE

As described in Section 3.0, the priority actions were established through a consensus-building process that incorporated input from various boards, districts, and departments. The Core Team conducted a Benefit-Cost Review of the actions identified by stakeholders based on the principles outlined in *Using Benefit-Cost Review in Mitigation Planning* prepared by FEMA. The Core Team utilized Method A: Simple Listing Technique. Priorities were expressed through timeframe designations in accordance with the CRB process. “Ongoing” were projects that are currently underway or would be addressed continuously over a period of time. Costs were generally estimated based on Core Team knowledge of similar project prices in the following categories:



MVP Group Facilitators examining prioritized action items during CRB workshop

- Very high (over \$1 million)
- High (\$500,000 - \$1 million)
- Medium (\$100,000 - \$500,000)
- Low (\$50,000 - \$100,000)
- Very low (under \$50,000)

6.1 Top Priority Actions

Following discussions as a large group at the conclusion of this workshop, stakeholders identified the following actions as the three highest priorities to improve the Town’s resilience to climate change:

1. Assess the condition/sizing of existing culverts, dams, and bridges, incorporating need to accommodate climate projections for stormwater
2. Assess the extent of elderly and disabled populations and the ability of emergency shelters to accommodate their needs
3. Identify roads susceptible to flooding and continue/improve existing maintenance programs (e.g. tree trimming)
4. Prepare an invasive species and pest management plan and educate the public

6.2 High Priority Actions

Action Description	Lead Department	Priority Level	Cost	Possible Funding Sources	Hazards Being Addressed	Implementation Schedule
Infrastructural						
Conduct assessment of the condition and capacity of existing bridge, culverts, and dam infrastructure, focusing on culverts and stormwater facilities in older neighborhoods	Conservation Commission, Department of Public Works	High	Medium	MVP Action Grant	Inland Flooding, Extreme Winter Weather, Severe Storms,	Short/Ongoing
Continue annual maintenance of existing bridge, culverts, and dams and upgrade infrastructure	Department of Public Works	High	Low	Culvert Replacement Municipal Assistance Grant Program	Inland Flooding,	Ongoing
Work on an active/annual maintenance plan for bridges, culverts, and dams	Department of Public Works	High	Low		Extreme Winter Weather	Ongoing
Continue management of stormwater infrastructure, including culvert cleaning.	Department of Public Works	High	Low	Town Meeting Appropriation	Severe Storms	Ongoing
Generate an inter-municipal plan	Department of Public Works, in coordination with surrounding towns	High	Medium		Extreme Winter Weather	Short
Conduct engineering and construction of the Pond Street Bridge improvements	Conservation Commission, Department of Public Works	High	Medium	MVP Action Grant	Inland Flooding, Extreme Winter Weather, Severe Storms,	Ongoing
Evaluate and assess the Attleboro Dye Works and Burr's Pond dams to identify future improvements	Conservation Commission, Department of Public Works	High	Medium	MVP Action Grant	Inland Flooding, Extreme Winter Weather, Severe Storms,	Ongoing
Assess vulnerabilities to single-phase electric power system from pole age and trees with a certified arborist, and conduct selective tree cutting to remove hazard trees from roadways	Department of Public Works, in coordination with utility companies	High	Low		Inland Flooding, Extreme Winter Weather, Severe Storms	Ongoing
Purchase portable generators for emergency use	Municipal Capital Improvement Committee	High	Medium	Town Meeting Appropriation	Severe Storms	Short/Ongoing
Plan for selective tree removal and identify specific hazards that would disrupt traffic between the north and south portions of town.	Department of Public Works	High	Low		Extreme Winter Weather, Severe Storms	Ongoing
Encourage citizens to use alternative forms of transportation during road flood events	Department of Public Works	High	Low		Inland Flooding	Long
Evaluate plowing contracts relative to nearby municipalities to improve snow clearing during storm events	Department of Public Works, in coordination with surrounding towns	High	Low		Extreme Winter Weather	Long
Maintain or expand a winter preparedness program and develop protocol for external sand/salt distribution	Department of Public Works	High	Medium	Town Meeting Appropriation	Extreme Winter Weather	Ongoing
Maintain roadside/right-of-way mowing program	Department of Public Works	High/Medium	Medium	Town Meeting Appropriation	Invasive Species	Ongoing
Upgrade/update heating systems in older buildings and assess overall resiliency of buildings to storm events	Municipal Capital Improvement Committee	High	Very High		Extreme Winter Weather, Severe Storms	Ongoing
Consider resilient design alternatives for construction of south-end fire station	Fire Department	High	Very High	Town Meeting Appropriation	All	Long
Conduct study of coverage of public safety radio network	Public Safety Communications	High	Low	Emergency Management Performance Grant	All	Long

Set up pest management contract for radio cabinet to maintain communication channels during emergencies	Public Communications Safety	High	Medium	Emergency Management Performance Grant	All	Long
Evaluate existing municipal buildings for additional shelter capacity and adequacy of amenities	Fire Department, Police Department, Municipal Capital Improvement Committee	High	Medium	Emergency Management Performance Grant	Inland Winter Storms, Flooding, Extreme Weather, Severe	Ongoing
Societal						
Evaluate centralized locations for affordable senior housing on municipal/other land	Human Services & Council on Aging	High	Medium	EEA Planning Assistance Grants	Inland Winter Storms, Flooding, Extreme Weather, Severe	Ongoing
Improve town's ability to accommodate and transport individuals with special service needs during hazard occurrence	Human Services & Council on Aging	High	High		Inland Winter Storms, Flooding, Extreme Weather, Severe	Ongoing
Acquire handicap-accessible vehicles to assist with transportation	Human Services & Council on Aging	High	Medium		Inland Winter Storms, Flooding, Extreme Weather, Severe	Ongoing
Perform an ADA audit of public buildings	Human Services & Council on Aging	High	Low		All	Short/Ongoing
Maintain or expand existing mutual aid agreements	Board of Selectmen	High	Low	Town Meeting Appropriation	Inland Winter Storms, Flooding, Extreme Weather, Severe, Heat/Drought	Short
Environmental						
Assess potential areas for retrofitting stormwater management systems to increase water quality treatment and improve infiltration	Department of Public Works	High	Medium	MVP Action Grant	Inland Winter Storms, Flooding, Extreme Weather, Severe, Heat/Drought	Short/Ongoing
Develop and maintain stormwater regulations	Planning Board, Board of Health, Conservation Commission	High	Medium	MVP Action Grant	Inland Winter Storms, Flooding, Extreme Weather, Severe, Heat/Drought	Short/Ongoing
Improve monitoring of existing stormwater management systems	Department of Public Works	High	Medium		Inland Winter Storms, Flooding, Extreme Weather, Severe, Heat/Drought	Short/Ongoing
Continue to work with state and federal partners for remediation/redevelopment of Attleboro Dye Works site	Conservation Commission, Planning Board, Finance Committee	High	High	Brownfields Site-Specific Assessment Grant	Inland Storms, Flooding, Severe	Ongoing
Inventory possible sources of contamination with community-wide assessment, especially vulnerable populations	Board of Health, Conservation Commission	High	Medium	MVP Action Grant	Inland Storms, Flooding, Severe	Ongoing
Work with MDAR to improve quality of runoff with pesticides and implement through the MS4 program	Department of Public Works	High	Medium	Massachusetts Department of Agricultural Resources (MDAR) Agricultural Climate Resiliency and Efficiencies (ACRE) Grant	Inland Storms, Flooding, Severe	Ongoing
Prioritize completion of OSRP and evaluate related projects for funding opportunities	Open Space & Recreation Plan Working Group	High	Low		Inland Storms, Flooding, Severe, Heat/Drought, Invasive Species	Short
Identify and acquire open parcels connecting Town Owned open space	Conservation Commission	High/Low	High	Community Preservation Act Funds, MVP Action Grant	All	Ongoing

Prepare site-specific resource management plans with invasive and pest-management and public access components	Conservation Commission	High	Low		Inland Flooding, Severe Storms, Heat/Drought, Invasive Species	Ongoing
Acquire additional conservation land	Conservation Commission	High	High	Community Preservation Act Funds, MVP Action Grant	Inland Flooding, Severe Storms, Heat/Drought, Invasive Species	
Incorporate potential for hazard occurrence into design of trail facilities and other passive recreation opportunities	Conservation Commission	High	Medium	Massachusetts Land and Water Conservation Fund Grant Program	Inland Flooding, Severe Storms, Heat/Drought, Invasive Species	Ongoing
Upgrade septic system requirements to treat higher levels of pollution	Board of Health	High	Medium	MVP Action Grant	Inland Flooding, Extreme Winter Weather, Severe Storms	Long/Ongoing
Continue to monitor water quality for private water supplies in critical areas	Board of Health	High	Medium	MassDEP Water Utility Resilience Program	Inland Flooding, Extreme Winter Weather, Severe Storms	Long/Ongoing
Incorporate radio cabinet maintenance into town-wide invasive species/pest management plan	Board of Health, Public Safety Communications	High	Low		Invasive Species	Ongoing
Include open space in town-wide invasive species/pest management plan	Board of Health, Conservation Commission	High	Low		Invasive Species	Ongoing
Educate public on prevention of invasive species spread	Board of Health	High	Low		Invasive Species	Ongoing
Evaluate nature-based solutions for pest management (e.g. bat houses)	Board of Health	High	Low		Invasive Species	Ongoing
Provide education to the public regarding the dangers of standing water	Board of Health	High	Low		Inland Flooding, Extreme Winter Weather, Severe Storms	Short/Ongoing
Develop a regional deer management program	Board of Health	High	Medium		Inland Flooding, Extreme Winter Weather, Severe Storms	Short/Ongoing
Perform analysis (or hire consultant to do so) to perform a groundwater elevation analysis and plan for future impacts (and effects on development)	Planning Board	High	Medium	MassDEP Statewide Water Management Act (WMA) Grant Program	Inland Flooding, Extreme Winter Weather, Severe Storms, Heat/Drought	Short/Long/Ongoing

6.3 Medium Priority Actions

Action Description	Lead Department	Priority Level	Cost	Possible Funding Sources	Hazards Being Addressed	Implementation Schedule
Infrastructural						
Evaluate installation of solar on municipal buildings	Municipal Capital Improvement Committee	Medium/Low	High	Department of Energy Resources (DOER) Green Communities Grants	Inland Flooding, Extreme Winter Weather, Severe Storms	Long
Continue to coordinate with National Grid regarding locating and protecting existing overhead wires and underground electric utilities	Department of Public Works, in coordination with utility companies	Medium	Very High		Inland Flooding, Extreme Winter Weather, Severe Storms	Ongoing
Include low-lying, flood-prone roadways in bridge/dam/culvert evaluation	Conservation Commission, Department of Public Works	Medium	Medium	MVP Action Grant	Inland Flooding, Extreme Winter Weather, Severe Storms	Long/Ongoing

Expand public transportation opportunities into vulnerable population areas (e.g. central Seekonk) to improve emergency evacuation and travel during hazard occurrences	Municipal Improvement Committee	Capital	Medium	High		Inland Winter Storms	Flooding, Extreme Weather, Severe	Long/Ongoing
Promote use of municipal water supply	Seekonk Water District		Medium	Low	MassDEP Water Utility Resilience Program	Inland Flooding		Ongoing
Investigate additional potable water sources	Seekonk Water District		Medium	Medium	Drinking Water Supply Protection Grant Program	Heat/Drought		Ongoing
Maintain program for assessment, maintenance, and prioritization for replacement and upgrades to stormwater management system	Department of Public Works		Medium	Medium	Culvert Replacement Municipal Assistance Grant Program	Inland Storms	Flooding, Severe	Ongoing
Perform water quality assessment of pre and post storm events and assist in daylighting streams	Department of Public Works		Medium	Medium		Inland Storms	Flooding, Severe	Ongoing
Assess existing septic systems in flood zones	Board of Health		Medium	Medium		Inland Flooding		Long/Ongoing
Assess opportunities to connect commercial developments to existing sewers	Board of Health		Medium	Medium		Inland Flooding		Long/Ongoing
Evaluate the cost of a municipal sewer system	Board of Health		Medium	Very High		Inland Flooding		Long/Ongoing
Continue to monitor and enforce Title V requirements	Board of Health		Medium	Medium		Inland Flooding		Long/Ongoing
Maintain and upgrade existing Emergency Response Plan	Fire Department, Police Department		Medium	Low	Emergency Management Performance Grant	Inland Winter Storms, Heat/Drought	Flooding, Extreme Weather, Severe	Short/Ongoing
Assess existing evacuation routes	Fire Department, Police Department		Medium	Low		Inland Winter Storms, Heat/Drought	Flooding, Extreme Weather, Severe	Short/Ongoing
Formalize Emergency Notification System	Fire Department, Police Department		Medium	Medium	Emergency Management Performance Grant	Inland Winter Storms, Heat/Drought	Flooding, Extreme Weather, Severe	Short/Ongoing
Improve stormwater management at sports fields to improve flood control	Department of Public Works, Parks and Recreation		Medium/Lower	Medium		Inland Winter Storms	Flooding, Extreme Weather, Severe	Long
Develop pest and nuisance management plan for fields	Parks and Recreation		Medium/Lower	Low		Invasive Species		Long
Develop plan for severe storm damage outside of DPW general maintenance scope	Parks and Recreation		Medium/Lower	Low		Inland Winter Storms	Flooding, Extreme Weather, Severe	Long
Societal								
Update/finish cooling stations for public use during drought or extreme heat.	Municipal Improvement Committee	Capital	Medium/High	High	Emergency Management Performance Grant	Heat/Drought		Ongoing
Increase emergency resources for elderly population.	Human Services & Council on Aging		Medium	High		Extreme Severe Heat/Drought	Winter Weather, Storms,	Long
Determine population size, general locations, and potential needs of vulnerable populations to better inform emergency response programs	Human Services & Council on Aging		Medium	Medium		All		Short/Ongoing
Develop an education plan for communicating during emergencies	Fire Department, Police Department		Medium	Low		All		Short/Ongoing
Host forum to discuss community and municipal interests and involvement of children/youth	School Council		Medium	Low		All		Short
Develop an education program to distribute to schools and camps regarding natural hazards	School Council		Medium	Low		All		Short

Take advantage of existing outreach opportunities (e.g. Census) to improve dissemination of information to vulnerable populations	Human Services & Council on Aging	Medium	Low		Inland Winter Storms	Flooding, Extreme Weather, Severe	Short
Improve communication during emergencies by providing in multiple languages	Public Communications	Safety	Medium	Medium	Inland Winter Storms	Flooding, Extreme Weather, Severe	Short
Incentivize employment of multi-lingual emergency responders	Fire Department, Police Department		Medium	Medium	Inland Winter Storms	Flooding, Extreme Weather, Severe	Short
Investigate and/or revise emergency response plan (currently outdated) and make this plan available to other town departments and stakeholders.	Fire Department, Police Department, Public Safety Communications		Medium	Low	Inland Winter Storms, Heat/Drought	Flooding, Extreme Weather, Severe	Short/Ongoing
Evaluate/develop plan for pet/domestic animal care during evacuation/shelter	Animal Control, Board of Health		Medium	Low	All		Long
Provide additional means of transportation for residents (including busing and other public transit).	Municipal Improvement Committee	Capital	Medium	High	Extreme Severe, Heat/Drought	Winter Weather, Storms,	Long
Investigate severe weather planning and preparation. Look for advanced methods of snow storage and removal	Department of Public Works		Medium	Low	Extreme Severe Storms	Winter Weather,	Ongoing
Environmental							
Assess yield of water supply wells relative to projected development trends	Board of Health, Seekonk Water District		Medium	Medium	MassDEP Statewide Water Management Act (WMA) Grant Program	All	Long
Encourage rainwater collection/reuse for residential and commercial irrigation	Board of Health		Medium	Low		All	Long
Evaluate additional land acquisition in vicinity of public water supply	Conservation Commission, Seekonk Water District		Medium	Medium	Drinking Water Supply Protection Grant Program	All	Long
Implement tree planting program	Planning Board		Medium	Low		Inland Winter Storms, Heat/Drought	Long
Encourage public to partake in Energy Savings Tree Program			Medium	Low		Inland Winter Storms, Heat/Drought	Long

6.4 Lower Priority Actions

Action Description	Lead Department	Priority Level	Cost	Possible Funding Sources	Hazards Being Addressed	Implementation Schedule
Infrastructural						
Perform a feasibility study to improve flood resilience of well fields.	Board of Health, Seekonk Water District	Lower	Low	MassDEP Water Utility Resilience Program	Inland Flooding	Long
Determine if new generators in the well fields would mitigate power loss during storm events and continue to provide access to water.	Board of Health, Seekonk Water District	Lower	Low	MassDEP Water Utility Resilience Program	Extreme Severe Storms	Long
Assess the age of the water distribution system to identify improvement/replacement	Board of Health, Seekonk Water District	Lower	Medium	MassDEP Water Utility Resilience Program	Inland Winter Storms	Long

Explore deeper well siting	Board of Health, Seekonk Water District	Lower	Medium	Drinking Water Supply Protection Grant Program	Heat/Drought	Long
Societal						
Evaluate capacity of existing shelters to accommodate excess population working in and traveling through town	Fire Department, Police Department	Lower	Medium		Inland Flooding, Extreme Winter Weather, Severe Storms, Heat/Drought	Long
Develop plan for road closures to respond to hazards	Department of Public Works	Lower	Low		Inland Flooding, Extreme Winter Weather, Severe Storms, Heat/Drought	Long
Determine population size, general locations, potential needs to better inform emergency response programs	Human Services & Council on Aging	Lower	Medium		All	Short
Access multi-lingual forms of emergency notifications	Fire Department, Police Department, Public Safety Communications	Lower	Medium		All	Short
Establish outreach commissions to improve communication with vulnerable populations	Human Services & Council on Aging	Lower	Low		All	Long
Develop education plan regarding distribution/retail of non-native/invasive species	Conservation Commission	Lower	Low		Invasive Species	Long
Develop a plan for businesses to better operate during emergency situations	Board of Selectmen	Lower	Low		All	Long
Explore alternative forms of government that improve representation	All	Lower			All	Ongoing
Maintain existing stormwater structures and increase storage capacity where possible.	Department of Public Works	Lower	Medium	Culvert Replacement Municipal Assistance Grant Program	Inland Flooding, Heat/Drought	Ongoing
Examine feasibility of requiring wider roads for planning purposes (e.g., subdivision regs) and to assist plow drivers in snow events.	Planning Board	Lower	Low		Extreme Winter Weather, Severe Storms	Ongoing
Environmental						
Perform feasibility study to raise well grades (thus placing them out of the floodplain)	Board of Health, Seekonk Water District	Lower	Medium	Drinking Water Supply Protection Grant Program	Inland Flooding	Long/Ongoing
Explore alternate power sources, including tie-in with other towns and local generator supplying.	Board of Selectmen, in coordination with surrounding towns	Lower	High		Extreme Winter Weather, Severe Storms	Long/Ongoing
Examine effectiveness of water use restrictions and enforce these rules where necessary.	Board of Health, Seekonk Water District	Lower	Low		Heat/Drought	Long/Ongoing
Investigate opportunities to preserve additional areas of flood zone (beyond those which are already designated for open space).	Conservation Commission	Lower	Medium	MVP Action Grant	Inland Flooding	Ongoing
Continue to plan maintenance that is location-specific and prioritize culverts and stormwater infrastructure within flood zones	Department of Public Works	Lower	Medium	Culvert Replacement Municipal Assistance Grant Program	Extreme Winter Weather, Severe Storms	Ongoing
Continue to administer wetlands protection regulations through permitting	Conservation Commission	Lower	Medium		All	Ongoing
Access and implement additional critter crossings	Conservation Commission	Lower	Medium		Inland Flooding, Extreme Winter Weather, Severe Storms, Heat/Drought	Long/Ongoing

7.0 PLAN ADOPTION AND MAINTENANCE

Local HMPs are reviewed by MEMA and FEMA for compliance with applicable state and local hazard mitigation plans and regulations. Upon receipt of an Approval Pending Adoption designation from FEMA, the plan must be adopted by local officials. A draft resolution of the Board of Selectmen to vote to adopt the final plan is included in Appendix G.

Updates to local HMPs are required every 5 years. The Town of Seekonk will monitor and update this plan in coordination with the annual updates required by Seekonk's designation as an MVP Certified Community. The Core Team will reconvene at least annually to review and update the following information, as required by the MVP Yearly Progress Report Template:

- List of MVP Core Team members, noting any new members.
- List of top priority actions, in order of priority, identified through the MVP planning process.
- Description of the process and any revisions or updates made to the original MVP Report
- Discussion of other work related to the MVP process or climate change resiliency in the municipality, and documentation of how the outcomes of the workshop were incorporated into other planning efforts
- Any grants applied for, or received, to implement actions from the MVP report.
- Other steps that taken towards implementing priority actions.
- Potential next steps to advance priority actions
- Difficulties or challenges identified through the MVP planning process or while seeking to implement priority actions and any steps identified to address these challenges.
- Data needs or information gaps

The MVP Yearly Progress Report Template will be made available to the public.

The Core Team will commence a comprehensive update of this plan approximately twelve months prior to its anticipated expiration. This update is anticipated to include reevaluation of the extent and risk posed by hazards, documentation of completed mitigation actions, and re-prioritization and addition of new mitigation priorities. The final list of priority mitigation actions will be subject to a similar public input process as that outlined herein

8.0 ACKNOWLEDGEMENTS

Completion of the CRB process and HMP update was made possible by an MVP Planning Grant from EEA. The Core Team would like to thank the Board of Selectmen, all of the stakeholders and participants of the CRB workshop, and those members of the public who offered comment for their support of the MVP Planning Grant application.



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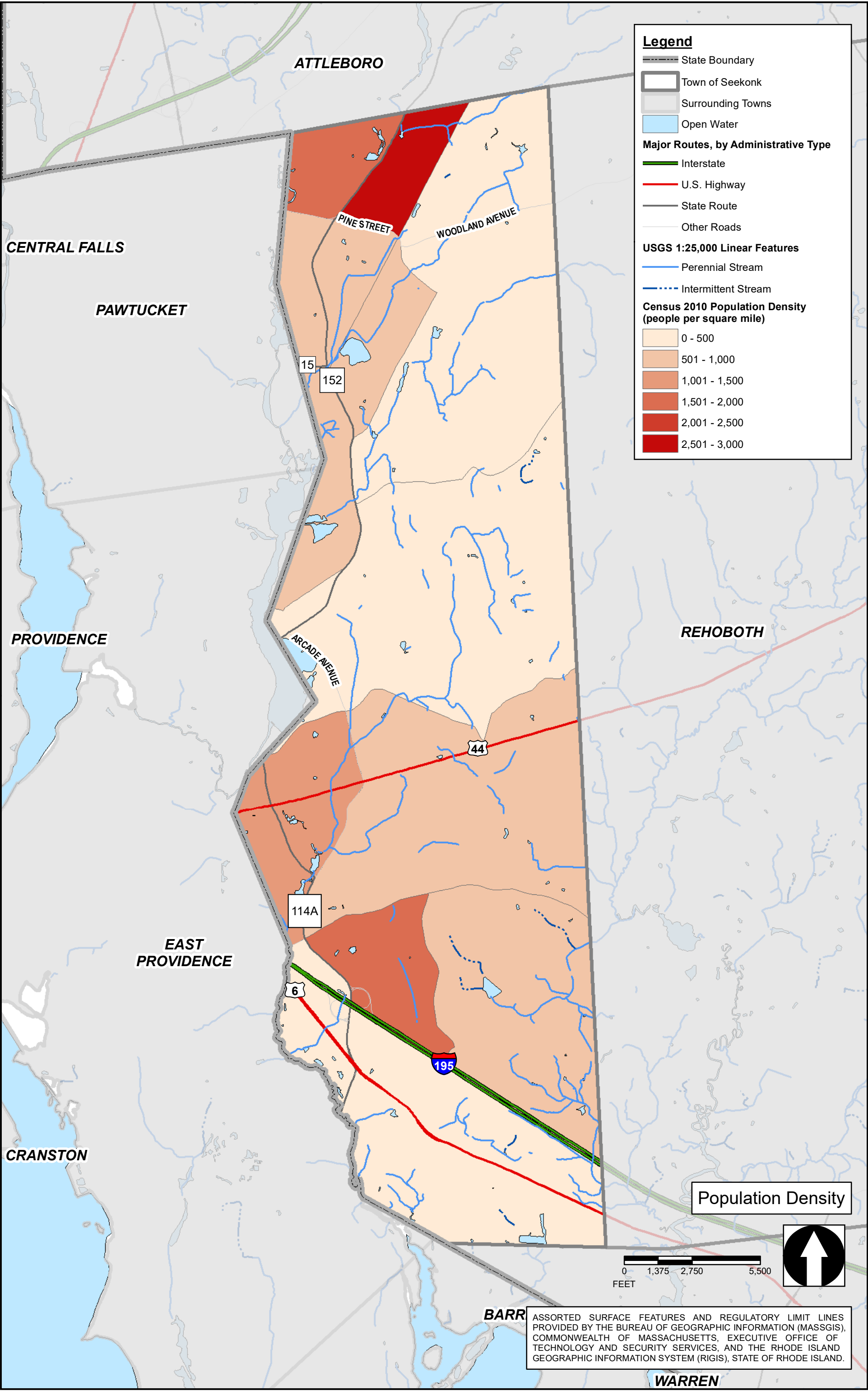
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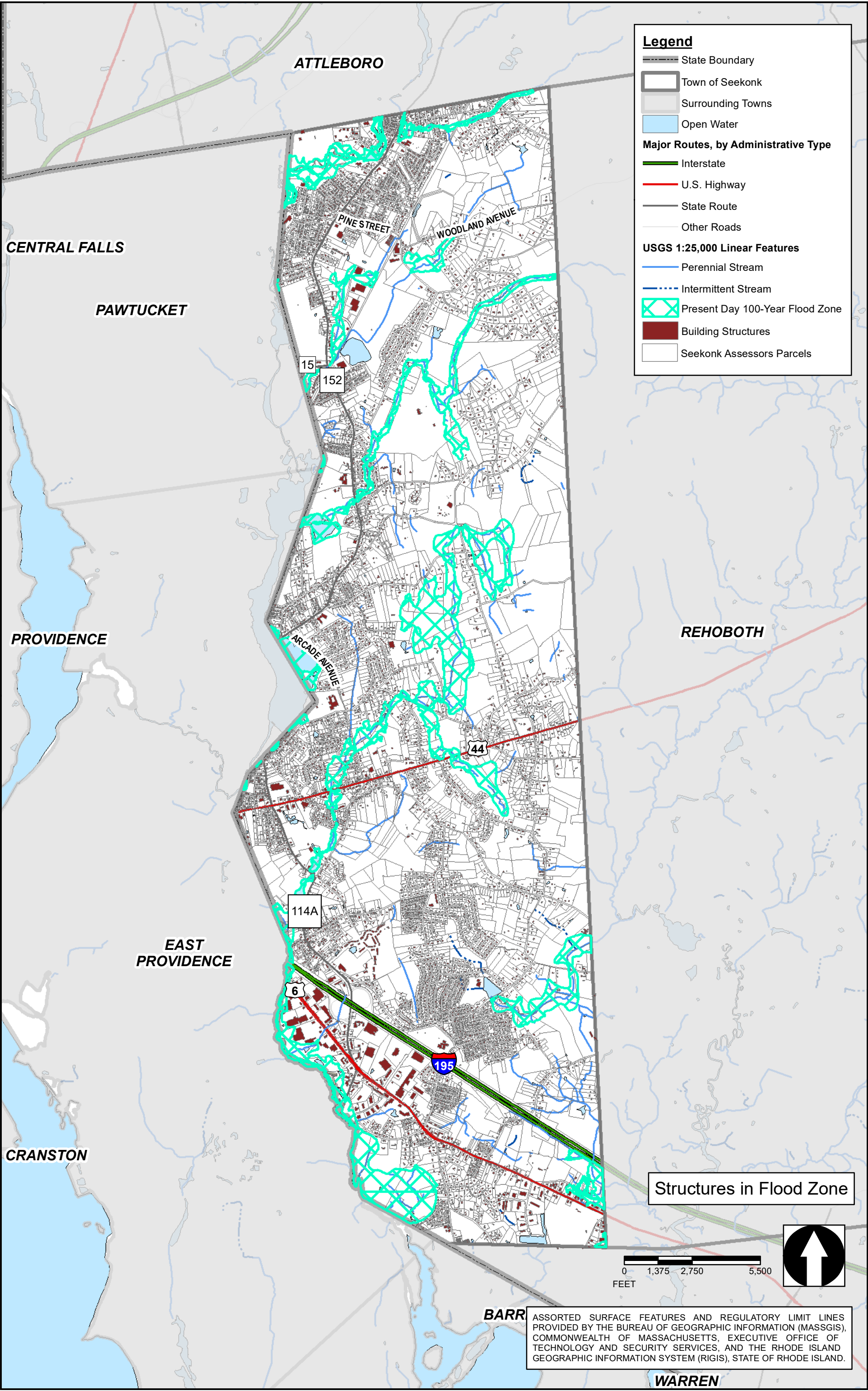
Figures

Figure 1: Population Density

Figure 3: Structures in Flood Zone

Figure 2: Critical Facilities in Hazard Areas





Legend

- State Boundary
- Town of Seekonk
- Surrounding Towns
- Open Water

Major Routes, by Administrative Type

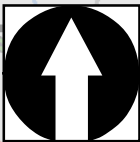
- Interstate
- U.S. Highway
- State Route
- Other Roads

USGS 1:25,000 Linear Features

- Perennial Stream
- Intermittent Stream
- Present Day 100-Year Flood Zone
- Building Structures
- Seekonk Assessors Parcels

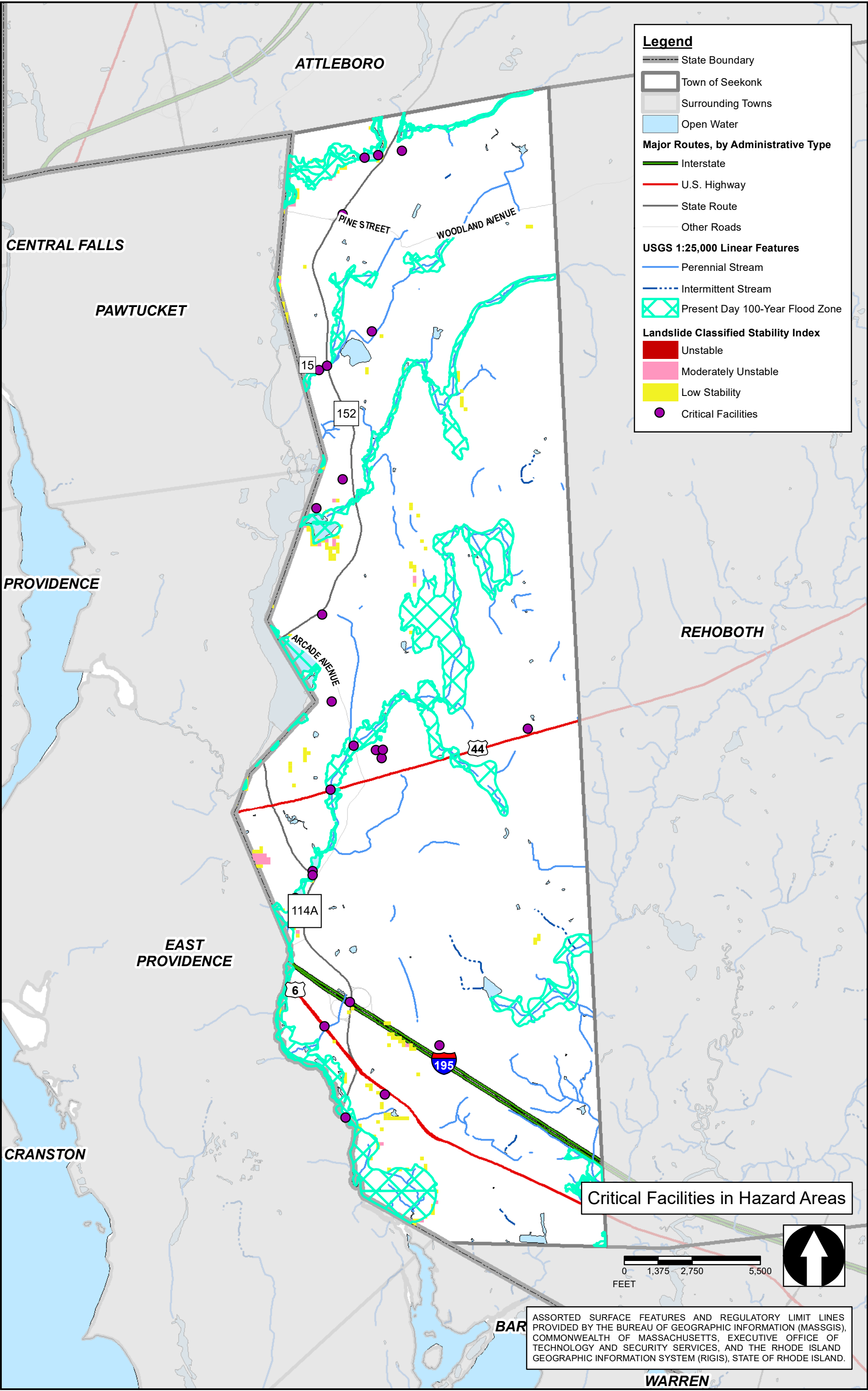
Structures in Flood Zone

0 1,375 2,750 5,500
FEET



BARR ASSORTED SURFACE FEATURES AND REGULATORY LIMIT LINES PROVIDED BY THE BUREAU OF GEOGRAPHIC INFORMATION (MASSGIS), COMMONWEALTH OF MASSACHUSETTS, EXECUTIVE OFFICE OF TECHNOLOGY AND SECURITY SERVICES, AND THE RHODE ISLAND GEOGRAPHIC INFORMATION SYSTEM (RIGIS), STATE OF RHODE ISLAND.

WARREN



Appendices

Appendix A

Local Mitigation Plan Review Tool

APPENDIX A:

LOCAL MITIGATION PLAN REVIEW TOOL

The *Local Mitigation Plan Review Tool* demonstrates how the Local Mitigation Plan meets the regulation in 44 CFR §201.6 and offers States and FEMA Mitigation Planners an opportunity to provide feedback to the community.

- The Regulation Checklist provides a summary of FEMA’s evaluation of whether the Plan has addressed all requirements.
- The Plan Assessment identifies the plan’s strengths as well as documents areas for future improvement.
- The Multi-jurisdiction Summary Sheet is an optional worksheet that can be used to document how each jurisdiction met the requirements of the each Element of the Plan (Planning Process; Hazard Identification and Risk Assessment; Mitigation Strategy; Plan Review, Evaluation, and Implementation; and Plan Adoption).

The FEMA Mitigation Planner must reference this *Local Mitigation Plan Review Guide* when completing the *Local Mitigation Plan Review Tool*.

Jurisdiction:	Title of Plan:	Date of Plan:
Local Point of Contact:	Address:	
Title:		
Agency:		
Phone Number:	E-Mail:	

State Reviewer:	Title:	Date:
------------------------	---------------	--------------

FEMA Reviewer:	Title:	Date:
Date Received in FEMA Region (insert #)		
Plan Not Approved		
Plan Approvable Pending Adoption		
Plan Approved		

SECTION 1: REGULATION CHECKLIST

INSTRUCTIONS: The Regulation Checklist must be completed by FEMA. The purpose of the Checklist is to identify the location of relevant or applicable content in the Plan by Element/sub-element and to determine if each requirement has been ‘Met’ or ‘Not Met.’ The ‘Required Revisions’ summary at the bottom of each Element must be completed by FEMA to provide a clear explanation of the revisions that are required for plan approval. Required revisions must be explained for each plan sub-element that is ‘Not Met.’ Sub-elements should be referenced in each summary by using the appropriate numbers (A1, B3, etc.), where applicable. Requirements for each Element and sub-element are described in detail in this *Plan Review Guide* in Section 4, Regulation Checklist.

1. REGULATION CHECKLIST		Location in Plan (section and/or page number)	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)				
ELEMENT A. PLANNING PROCESS				
A1. Does the Plan document the planning process, including how it was prepared and who was involved in the process for each jurisdiction? (Requirement §201.6(c)(1))				
A2. Does the Plan document an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development as well as other interests to be involved in the planning process? (Requirement §201.6(b)(2))				
A3. Does the Plan document how the public was involved in the planning process during the drafting stage? (Requirement §201.6(b)(1))				
A4. Does the Plan describe the review and incorporation of existing plans, studies, reports, and technical information? (Requirement §201.6(b)(3))				
A5. Is there discussion of how the community(ies) will continue public participation in the plan maintenance process? (Requirement §201.6(c)(4)(iii))				
A6. Is there a description of the method and schedule for keeping the plan current (monitoring, evaluating and updating the mitigation plan within a 5-year cycle)? (Requirement §201.6(c)(4)(i))				
ELEMENT A: REQUIRED REVISIONS				

1. REGULATION CHECKLIST		Location in Plan (section and/or page number)	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)				
ELEMENT B. HAZARD IDENTIFICATION AND RISK ASSESSMENT				
B1. Does the Plan include a description of the type, location, and extent of all natural hazards that can affect each jurisdiction(s)? (Requirement §201.6(c)(2)(i))				
B2. Does the Plan include information on previous occurrences of hazard events and on the probability of future hazard events for each jurisdiction? (Requirement §201.6(c)(2)(i))				
B3. Is there a description of each identified hazard's impact on the community as well as an overall summary of the community's vulnerability for each jurisdiction? (Requirement §201.6(c)(2)(ii))				
B4. Does the Plan address NFIP insured structures within the jurisdiction that have been repetitively damaged by floods? (Requirement §201.6(c)(2)(ii))				
<u>ELEMENT B: REQUIRED REVISIONS</u>				
ELEMENT C. MITIGATION STRATEGY				
C1. Does the plan document each jurisdiction's existing authorities, policies, programs and resources and its ability to expand on and improve these existing policies and programs? (Requirement §201.6(c)(3))				
C2. Does the Plan address each jurisdiction's participation in the NFIP and continued compliance with NFIP requirements, as appropriate? (Requirement §201.6(c)(3)(ii))				
C3. Does the Plan include goals to reduce/avoid long-term vulnerabilities to the identified hazards? (Requirement §201.6(c)(3)(i))				
C4. Does the Plan identify and analyze a comprehensive range of specific mitigation actions and projects for each jurisdiction being considered to reduce the effects of hazards, with emphasis on new and existing buildings and infrastructure? (Requirement §201.6(c)(3)(ii))				
C5. Does the Plan contain an action plan that describes how the actions identified will be prioritized (including cost benefit review), implemented, and administered by each jurisdiction? (Requirement §201.6(c)(3)(iv)); (Requirement §201.6(c)(3)(iii))				
C6. Does the Plan describe a process by which local governments will integrate the requirements of the mitigation plan into other planning mechanisms, such as comprehensive or capital improvement plans, when appropriate? (Requirement §201.6(c)(4)(ii))				
<u>ELEMENT C: REQUIRED REVISIONS</u>				

1. REGULATION CHECKLIST		Location in Plan (section and/or page number)	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)				
ELEMENT D. PLAN REVIEW, EVALUATION, AND IMPLEMENTATION (applicable to plan updates only)				
D1. Was the plan revised to reflect changes in development? (Requirement §201.6(d)(3))				
D2. Was the plan revised to reflect progress in local mitigation efforts? (Requirement §201.6(d)(3))				
D3. Was the plan revised to reflect changes in priorities? (Requirement §201.6(d)(3))				
<u>ELEMENT D: REQUIRED REVISIONS</u>				
ELEMENT E. PLAN ADOPTION				
E1. Does the Plan include documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval? (Requirement §201.6(c)(5))				
E2. For multi-jurisdictional plans, has each jurisdiction requesting approval of the plan documented formal plan adoption? (Requirement §201.6(c)(5))				
<u>ELEMENT E: REQUIRED REVISIONS</u>				
ELEMENT F. ADDITIONAL STATE REQUIREMENTS (OPTIONAL FOR STATE REVIEWERS ONLY; NOT TO BE COMPLETED BY FEMA)				
F1.				
F2.				
<u>ELEMENT F: REQUIRED REVISIONS</u>				

Appendix B

Workshop Materials

Agenda for January 29, 2020 CRB Workshop

Introductory Presentations for January 29, 2020 Workshop

MEETING DATE: December 12, 2019

MEETING TIME: 1:00 PM

ISSUE DATE: December 11, 2019

REFERENCE: Municipal Vulnerability Preparedness and Hazard Mitigation Plan
Mandatory Core Team Kick-Off Meeting
Seekonk, Massachusetts
B+T Project No. 3153.00

PREPARED BY: Beals and Thomas, Inc.

COPIES TO: Seekonk MVP Core Team

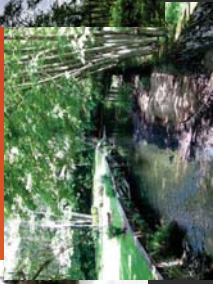
PURPOSE: To provide an introduction and overview of the Municipal Vulnerability Preparedness (MVP) Program and Hazard Mitigation Plan (HMP) to the Seekonk Core Team and discuss action items and schedule.

AGENDA ITEMS:

1. Introduction and overview of the MVP Program
2. Community Resiliency Building Workshop(s)
 - a. Identify potential stakeholders
3. Hazard Mitigation Plan
 - a. Mitigation planning overview
 - b. Discuss Massachusetts Integrated State Hazard Mitigation Plan and Climate Adaptation Plan, dated September 2018
 - c. Overview of hazards – identify prior occurrences in Seekonk
4. Proposed schedule and next steps
 - a. Develop list of critical facilities
 - b. Discuss existing and required planning efforts
 - c. Identify potential workshop date(s)

Enclosure: Municipal Vulnerability Preparedness (MVP) Program Overview (PDF)

MKS/EJL/315300AG001



Town of Seekonk Community Resilience Building Workshop

Presented By:



Welcome and Introduction

- Jennifer Miller, Seekonk Conservation Agent



Team Members

Town of Seekonk Core Team

- Jennifer Miller, Seekonk Conservation Agent
- Jessica Horsman, Seekonk Health Agent
- Peter Fuller, Seekonk Public Library
- Bruce Alexander, Seekonk Finance Department
- Scott Olobri, Seekonk Department of Public Works
- Brittany Faria, Seekonk Human Services
- Gerard LaFleur, Seekonk Police Department
- Sharonlyne Hall, Seekonk Animal Control
- John J. Aubin, III, Seekonk Planning Office
- Neal Abelson, Seekonk Building Department
- David Cabral, Seekonk Department of Public Works
- Kate McPherson, Save The Bay
- John Pozzi, Seekonk Parks and Recreation
- Shawn E. Cadime, Seekonk Town Administrator

Beals and Thomas, Inc. (B+T) Facilitators

- Mary Kate Schneeweis
- Nick Santangelo
- Andrew Gorman

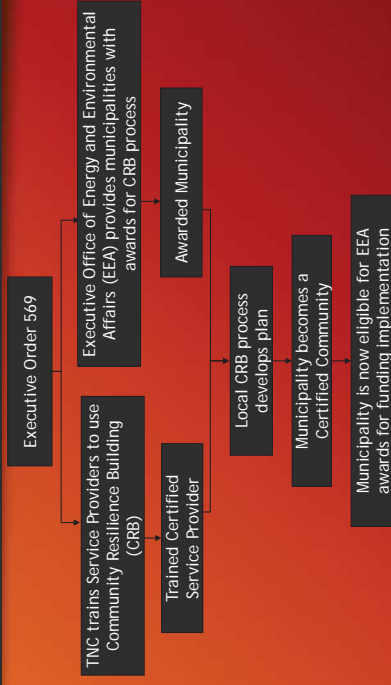
Roundtable Stakeholder Introductions

Municipal Vulnerability Preparedness (MVP) Program



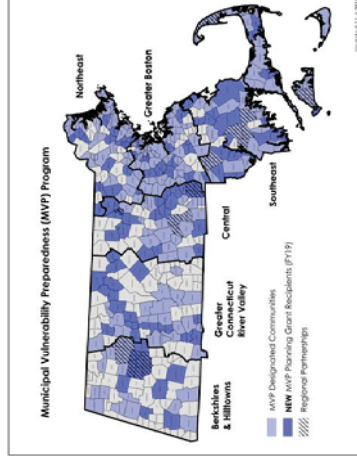
www.CommunityResilienceBuilding.org

MVP Overview

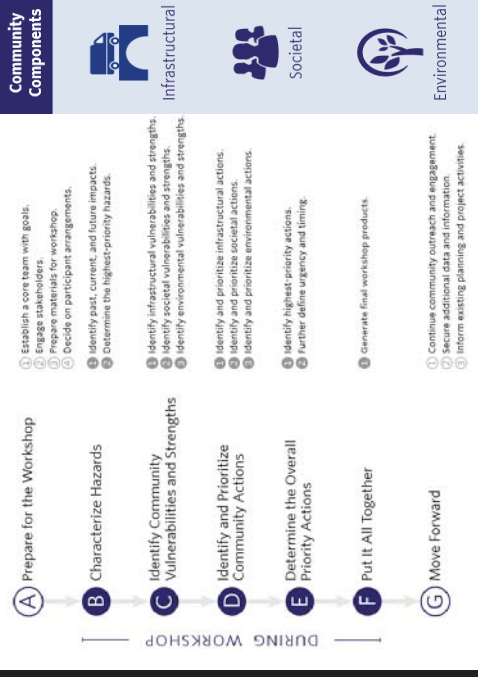


State's Vision for the MVP Program

1. Engage community
2. Identify climate change impacts and hazards
3. Complete assessment of vulnerabilities and strengths
4. Develop and prioritize actions
5. Take action!



Overview of the MVP Process



Workshop Objectives

- Define extreme weather and natural and climate-related hazards
- Identify existing and future vulnerabilities and strengths
- Develop and prioritize actions for the community and broader stakeholder networks
- Identify opportunities for the community to advance actions to reduce risks and build resilience.

Town of Seekonk MVP Designation Schedule

Receipt of Planning Grant: Summer 2019

Core Team Establishment of Approach:
December 12, 2019

Workshop: January 29, 2019

MVP-Hazard Mitigation Plan Hybrid Public
Review: April 2020

Public Listening Session: May 2020

Final Report: June 2020

Mitigation Planning Benefits

- A process for communities to identify policies, activities and tools to implement mitigation actions
 - Increases awareness of vulnerabilities
 - Promotes safety and welfare of communities and citizens
 - Cultivates community commitment to mitigation
- Lack of hazard awareness and mitigation plan could lead to unnecessary losses to infrastructure and critical facilities and potential human casualties

Massachusetts Integrated State Hazard Mitigation and Climate Adaptation Plan (SHMCAP)

- Published September 2018
 - Complies with federal requirements for state hazard mitigation plans to maintain eligibility for disaster recovery funding
 - First SHMP to integrate climate adaptation
- Identifies risk of various natural hazards to critical sectors
 - Populations
 - Government
 - Built environment
 - Natural resources and environment
 - Economy

Municipal Hazard Mitigation Plan

- Required for municipalities to receive Federal Emergency Management Agency (FEMA) funding for non-emergency disaster assistance
- Updates required every 5 years
- Additional EEA funds for communities with expired or expiring hazard mitigation plans who are undertaking MVP process - MVP-HMP Hybrid
- Similar public input process to MVP program
- Must address hazards outlined in SHMP

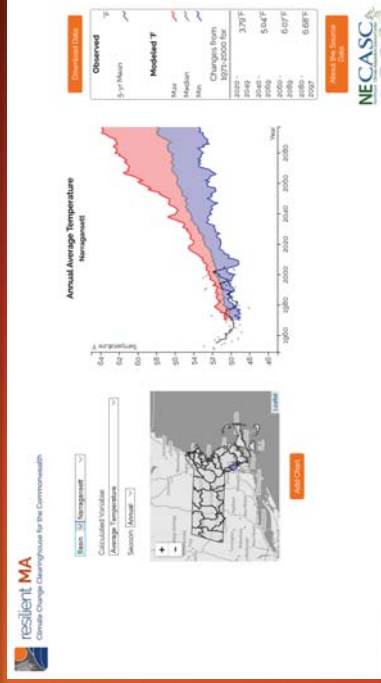
MVP Action Grants

- Town will be eligible upon designation as MVP community
- Project categories include:
 - Detailed vulnerability/risk assessments
 - Local bylaw and ordinance improvements
 - Engineering and construction retrofits
 - Ecological restoration projects
 - Nature-based solutions to reduce vulnerability

FY 2018-2019 Action Grant Examples

- Boston - Climate Ready Zoning and Design Guidelines
- Natick - Tree Planting Plan to Mitigate Heat Islands and Reduce Runoff
- Salem - Sanitary Sewer Trunk Line Relocation Assessment
- Montague - City Road Flooding Protection Project: Design and Permitting
- Northampton - Nature-Based Flood Protection to Reduce Vulnerabilities
- Weymouth - Fort Point Road Coastal Infrastructure Resilience Project

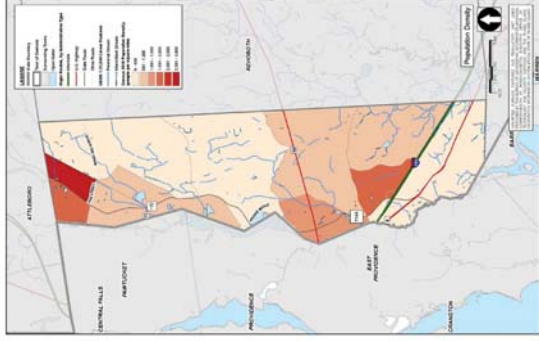
Science and Resources



Seekonk Demographics

- Total Population (2019): 15,702
- Potential Vulnerable Populations:
 - Age 60+: 2,955 (2010 census), 3,827 (2020 projected), 4,400 (2030 projected)
 - Persons with Disabilities: 6.5%
 - Speak language other than English at home: 10.2%
 - Below poverty line: 4.8%

Source: Center for Social & Demographic Research, Gerontology Institute, John W. McCormack Graduate School of Policy & Global Studies, UMass Boston; United States Census Bureau; American Community Survey



SHMCAP Natural Hazards - consideration in Seekonk

- Inland flooding
- Coastal flooding
- Average and extreme temperatures
- Drought
- Coastal Erosion
- Wildfire
- Landslides
- Tsunami
- Invasive species
- Hurricanes/tropical storms
- Severe winter storm/nor'easter
- Tornadoes
- Other severe weather
- Earthquakes

SHMCAP Natural Hazards - consideration in Seekonk

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Riverine floodplain associated with following named streams:

- Runnins River
- Clear Run Brook
- Coles Brook
- Ten Mile River
- Torrey Creek
- Dams located within the Town
 - Old Grist Mill Pond Dam
 - Runnins River Dam
 - Ten Mile River Dam
- Drainage-related flooding issues from stormwater capacity

Inland Flooding

Severe Storms

- Winter Storms/Nor'easters
 - 2012 blizzard
 - Massachusetts Disaster Declarations within Bristol County for winter weather
 - Severe Winter Storm and Flooding (DR-4372): March 2018
 - Severe Winter Storm, Snowstorm, and Flooding (DR-4214): January 2015
 - Severe Winter Storm, Snowstorm, and Flooding (DR-4110): February 2013
- Severe storms/hurricanes
 - Hurricane Sandy, 2012

Source: FEMA

Extreme Temperatures

- Record high temperature: 104°F (August 1975)
- Record low temperature: -17°F (February 1934)

Source: National Weather Service, NOWData - NOAA Online Weather Data, Providence Area, RI

Invasive Species

- Plants
 - 68 species identified by Massachusetts Invasive Plant Advisory Group
 - Purple loosestrife (*Lythrum salicaria*)
 - Sycamore maple (*Acer pseudoplatanus*)
 - Tree-of-heaven (*Ailanthus altissima*)
 - Asiatic bittersweet (*Celastrus orbiculatus*)
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 - Water chestnut (*Trapa natans*)
 - Eurasian milfoil (*Myriophyllum spicatum*)



Asiatic bittersweet (*Celastrus orbiculatus*) © B-T

Massachusetts Climate Change Projections (Narragansett Bay & Mt. Hope Bay Basin)

- Temperature
 - Increased average temperatures and number of days with maximum temperature above 90°F
 - Annually - 7 to 29 more days with temperatures above 90°F by 2050s
 - Decrease in number of days with minimum temperature below 32°F
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- Precipitation
 - Increase in number of days with greater than 1" precipitation and total precipitation
 - Annually - approximately 1 to 3 more days with precipitation greater than 1" by 2050s
- Drought
 - Increase in consecutive dry days
 - Summer - potential decrease of 1 day to increase of 2 days with less than 1 mm of precipitation

Workshop Exercises



Summary of Workshop Exercises

- Develop and prioritize list of Hazards
- Identify community Strengths and Vulnerabilities
 - Infrastructural
 - Societal
 - Environmental
- Determine and prioritize Actions
 - Identify the actions needed to reduce the vulnerability or reinforce the strength represented by each feature/asset.
 - Priority (high, medium, low)
 - Timeframe (ongoing, short-term, long-term)

Definitions

- Hazard - cause of negative impacts to community
- Risk - potential result from hazard
- Vulnerability - feature (societal, environmental, or infrastructural) that is susceptible to risk
- Action - addresses vulnerability

Hazards vs. Vulnerabilities



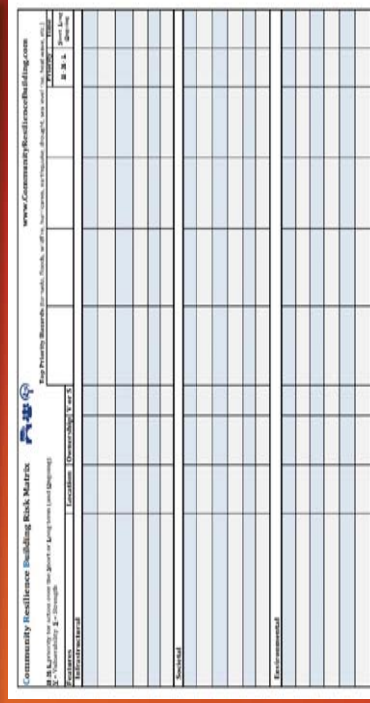
Large Group Exercise: Top Hazards

- Top hazards identified by Core Team
 - Severe winter storm/nor'easter
 - Invasive species
 - Average and extreme temperatures
 - Inland flooding
- Stakeholder input

10-Minute Break

- When you return, please sit at the table that corresponds to your nametag color

Small Group Exercises: Complete Risk Matrix



Risk Matrix Columns 1-4

- List top hazards for community in top row
- For each sector (infrastructural, societal, environmental)
 - Identify vulnerabilities and strengths
 - Determine location
 - List on Risk Matrix
 - Mark on Base Map
 - Identify ownership of issue or place.
 - Identify if feature/asset is a strength and/or vulnerability

Lunch Break

- Please help yourself to the lunch provided.

Risk Matrix Columns 5-10

- Determine actions
 - Identify the actions needed to reduce the vulnerability or reinforce the strength represented by each feature/asset.
- Prioritize
 - Priority (High, Medium, Low)
 - Timeframe (ongoing, short-term, long-term)

If Possible: Use Nature Based Solutions

- Use or mimic natural systems to address hazards
 - Ecological Restoration
 - Green Infrastructure
 - Low-Impact Development (LID)



Image Source: Nature-Based Solutions to address global societal changes, Cohen, et al., 2016

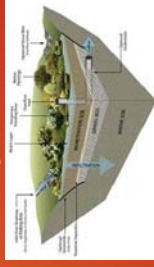
Examples of Ecological Restoration

- Dam Removal



Examples of Green Infrastructure/LID

- Stormwater Management with Green Roofs
- Stormwater Management with Bioretention Areas and Rain Gardens



Small Group Report Out

- Small group spokesperson
 - 3-5 minute summary to present completed matrices
 - What Risks were identified?
 - What were the top priority Hazards identified?
 - Were there any other items of discussion worth noting?

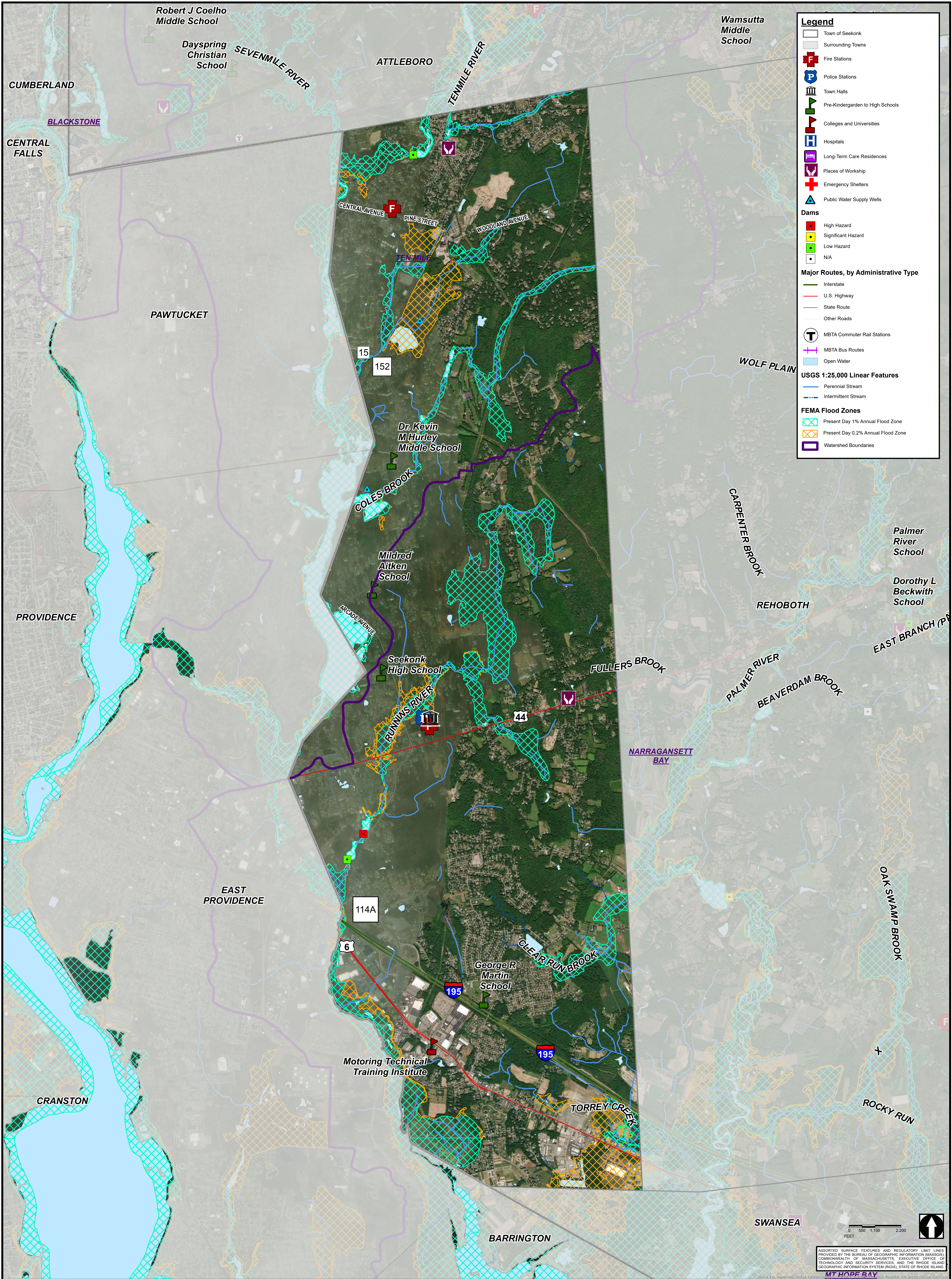
Large Group Discussion

- Identify top 3-5 priority actions
- Further refine timeframe(s)

Next Steps

- Town and B+T to compile results of workshop into summary report and updated HMP
- Provide draft summary report/HMP for public review
- Hold listening session to present list of priority actions and how to implement
- Submit final summary report/HMP to EEA to receive MVP designation, and to MEMA and FEMA for review and comment
- Incorporate MEMA/FEMA comments on HMP
- Final HMP approval from Board of Selectmen

Appendix C Base Map



Legend

- Town of Seekonk
- Surrounding Towns
- Fire Stations
- Police Stations
- Town Halls
- Pre-Kindergarden to High Schools
- Colleges and Universities
- Hospitals
- Long-Term Care Residences
- Places of Worship
- Emergency Shelters
- Public Water Supply Wells

Dams

- High Hazard
- Significant Hazard
- Low Hazard
- N/A

Major Routes, by Administrative Type

- Interstate
- U.S. Highway
- State Route
- Other Roads
- MBTA Commuter Rail Stations
- MBTA Bus Routes
- Open Water

USGS 1:25,000 Linear Features

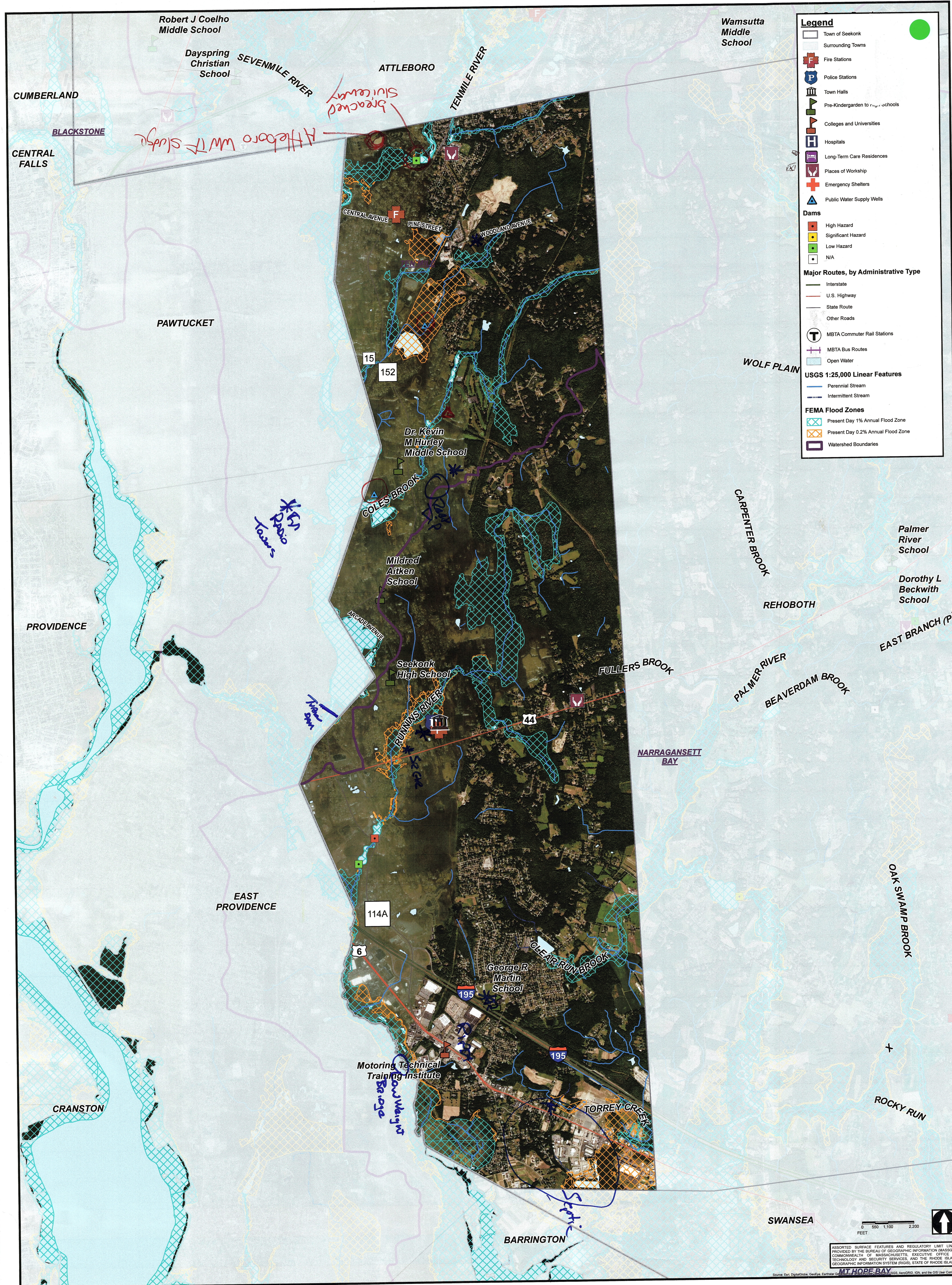
- Perennial Stream
- Intermittent Stream

FEMA Flood Zones

- Present Day 1% Annual Flood Zone
- Present Day 0.2% Annual Flood Zone
- Watershed Boundaries

Appendix D

Participatory Mapping



Legend

- Town of Seekonk
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FEMA Flood Zones

- Present Day 1% Annual Flood Zone
- Present Day 0.2% Annual Flood Zone
- Watershed Boundaries





Legend

Land Use

- Residential
- Commercial
- Industrial
- Forest
- Water
- Wetlands
- Open Space
- Other

Water Features

- Rivers
- Streams
- Ponds
- Lakes
- Canals

Infrastructure

- Roads
- Railroads
- Airports
- Highways
- Interstates
- State Routes
- Local Roads
- Other

Other

- Public Schools
- Private Schools
- Colleges and Universities
- Hospitals
- Prisons
- Other

Map Scale

1:25,000

Map Projection

NAD 83

Map Date

2010

Appendix E

Public Listening Session Information

Agenda for April 27, 2020 Public Listening Session #1

Presentation for Public Listening Session #1

Agenda for June 10, 2020 Public Listening Session #2

Presentation for Public Listening Session #2

Written Public Comments Received

1st Public Listening Session

Municipal Vulnerability Preparedness (MVP) Planning Grant

Monday, April 27th, 2020 (6:00pm-7:30pm)

****Remote Session to be broadcast live on Seekonk TV-9****



1. Introductions & Overview of MVP Program
2. Regional Natural Hazards & Climate Change Projections
3. Summary of Priority Actions (as identified by stakeholders)
 - a. Highest Priority Actions
 - b. Additional Infrastructural Actions
 - c. Additional Societal Actions
 - d. Additional Environmental Actions
4. Proposed schedule and next steps

Due to current restrictions on public gatherings, the public listening session will be broadcast live on Seekonk TV-9 from 6:00pm-7:30pm on Monday, April 27th. Previously identified stakeholders will be able to call in and give feedback during the presentation, however, public comment will be solicited as outlined below.

The listening session presentation materials are available on the Town's website, www.seekonk-ma.gov and public comment may be made in writing to Conservation Agent, Jennifer Miller via email at jmiller@seekonk-ma.gov through Monday, May 11th.

Please note, once comments have been reviewed and incorporated into the MVP and HMP documents, the draft plans will be reviewed and additional input solicited during a 2nd public listening session.



Town of Seekonk Municipal Vulnerability Preparedness and Hazard Mitigation Plan

Presented By:



BEALS + THOMAS Public Listening Session #1
April 27, 2020

Welcome and Introduction

- Jennifer Miller, Seekonk Conservation Agent



Agenda

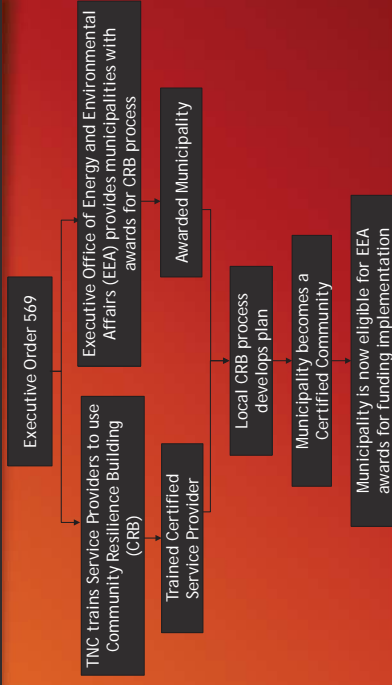
- Introduction and overview of the MVP Program
- Top natural hazards identified by stakeholders
 - Climate change projections
- Summary of priority actions
 - Top four priority actions
 - Additional infrastructural actions
 - Additional societal actions
 - Additional environmental actions
- Proposed schedule and next steps

Municipal Vulnerability Preparedness (MVP) Program



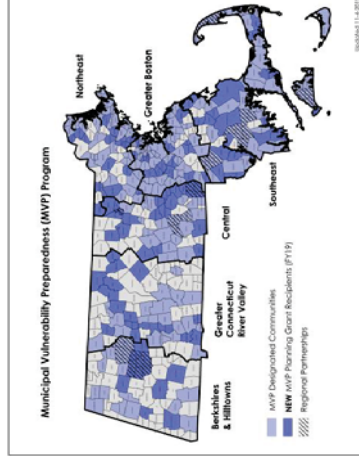
www.CommunityResilienceBuilding.org

MVP Overview



State's Vision for the MVP Program

1. Engage community
2. Identify climate change impacts and hazards
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5. Take action!



Town of Seekonk MVP Designation Schedule

Core Team Establishment of Approach:
December 12, 2019

CRB Workshop: January 29, 2019

Public Listening Session #1: April 27, 2020

Public Listening Session #2: May 2020

HMP/Summary of Findings available for public review: May 2020

Final Report: June 2020

Overview of the MVP Process



January Workshop Objectives

- Define extreme weather and natural and climate-related hazards
- Identify existing and future vulnerabilities and strengths
- Develop and prioritize actions for the community and broader stakeholder networks
- Identify opportunities for the community to advance actions to reduce risks and build resilience.

Municipal Hazard Mitigation Plan

- Similar public input process to MVP program
- Required for municipalities to receive Federal Emergency Management Agency (FEMA) funding for non-emergency disaster assistance
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MVP Action Grants

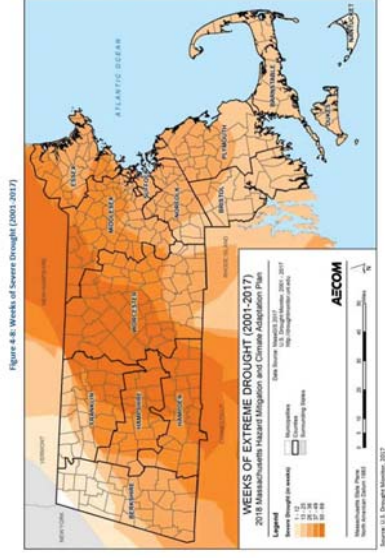
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- Project categories include:
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 - Engineering and construction retrofits
 - Ecological restoration projects
 - Nature-based solutions to reduce vulnerability
- Next round of funding anticipated April 2020

Sample Action Grants FY20

- Chelmsford: Dunshire Drive Culvert Replacement & Deep Brook Stream Restoration: Phase I
- Harvard: Community Climate Action & Land Stewardship Plan
- Medford: Equity-Centered Process for Climate Action and Adaptation Planning
- Monson: Energy Resiliency for Town Hall-EOC-Police HQ Facility
- Worcester: Worcester Senior Center Parking Lot - Nature-Based Solutions

Drought/Heat

- September 2016 drought affected 52.13% of Massachusetts land.
- Major crop/pasture loss
- Widespread water shortages and restrictions
- Increased risk of wildfire



Severe Storms

- Severe storms/hurricanes
 - Hurricane Sandy, 2012

Source: FEMA

Extreme Winter Weather

- Winter Storms/Nor'easters
 - 2012 blizzard
 - Massachusetts Disaster Declarations within Bristol County for winter weather
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Inland Flooding

Invasive Species

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Asiatic bittersweet (*Celastrus orbiculatus*) © B-T

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- Drought
 - Increase in consecutive dry days
 - Summer - potential decrease of 1 day to increase of 2 days with less than 1 mm of precipitation

Summary of Priority Actions



January Workshop: Top Priorities

- Assess the condition/sizing of existing culverts, dams, and bridges, incorporating need to accommodate climate projections for stormwater
- Assess the extent of elderly and disabled populations and the ability of emergency shelters to accommodate their needs
- Identify roads susceptible to flooding and continue/improve existing maintenance programs (e.g. tree trimming)
- Prepare an invasive species and pest management plan and educate the public

Questions/Discussion

- Input on Top Priorities



Additional Infrastructural Actions



Catch basin mapped by Save the Bay in Seakonk. © SaveTheBay.org

High Priority Infrastructural Actions

- Conduct assessment of the condition and capacity of existing infrastructure, focusing on culverts and stormwater facilities in older neighborhoods
- Continue annual maintenance and upgrade infrastructure,
- Work on an active/annual maintenance plan
- Continue management of stormwater infrastructure, including culvert cleaning
- Generate an inter-municipal plan

High Priority Infrastructural Actions Continued (2 of 4)

- Conduct engineering and construction of the Pond Street Bridge improvements
- Evaluate and assess the Attleboro Dye Works and Burr's Pond dams to identify future improvements
- Assess vulnerabilities to single-phase electric power system from pole age and trees with a certified arborist, and conduct selective tree cutting to remove hazard trees from roadways
- Purchase portable generators for emergency use and increase generator capacity at emergency shelter sites
- Plan for selective tree removal and identify specific hazards that would disrupt traffic between the north and south portions of town.

High Priority Infrastructural Actions Continued (3 of 4)

- Encourage alternative transportation when roads are flooded
- Evaluate plowing contracts relative to nearby municipalities to improve snow clearing during storm events
- Maintain or expand a winter preparedness program and develop protocol for external sand/salt distribution
- Maintain/Improve roadside/ROW mowing program
- Explore cooperative agreements with neighboring water supplies
- Upgrade/update heating systems in older buildings and assess overall resiliency of buildings to storm events.

High Priority Infrastructural Actions Continued (4 of 4)

- Consider resilient design alternatives for construction of south-end fire station
- Conduct study of coverage of public safety radio network
- Set up pest management contract for radio cabinet to maintain communication channels during emergencies
- Evaluate existing municipal buildings for additional shelter capacity and adequacy of amenities
- Update/finish cooling stations for public use during drought or extreme heat

Medium Priority Infrastructural Actions

- Evaluate installation of solar on municipal buildings
- Continue to coordinate with National Grid regarding locating and protecting existing OHW and UE
- Continue roadside/ROW maintenance programs
- Include low-lying, flood-prone roadways in bridge/dam/culvert evaluation
- Expand public transportation opportunities into vulnerable population areas (e.g. central Seekonk) to improve emergency evacuation and travel during hazard occurrences

Medium Priority Infrastructural Actions Continued (2 of 3)

- Promote use of municipal water supply
- Investigate additional potable water sources
- Maintain program for assessment, maintenance, and prioritization for replacement and upgrades
- Perform water quality assessment of pre- and post-storm events and assist in daylighting streams
- Assess existing septic systems in flood zones
- Assess opportunities to connect commercial developments to existing sewers

Medium Priority Infrastructural Actions Continued (3 of 3)

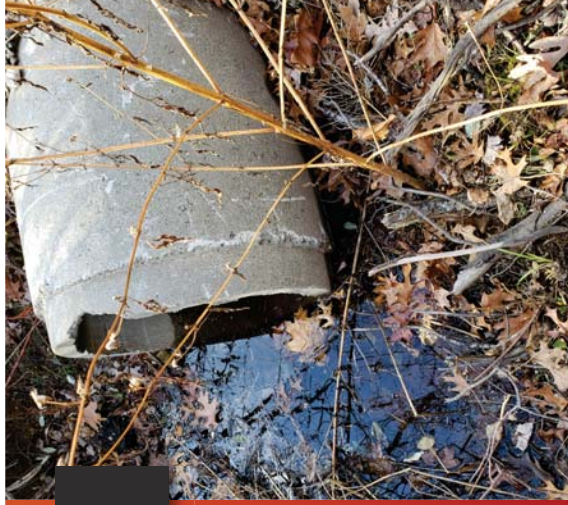
- Evaluate the cost of a municipal sewer system
- Continue to monitor and enforce Title V requirements
- Maintain and upgrade existing Emergency Response Plan
- Assess existing evacuation routes
- Formalize Emergency Notification System
- Improve stormwater management at sports fields to improve flood control
- Develop pest and nuisance management plan for fields
- Develop plan for severe storm damage outside of DPW general maintenance scope

Lower Priority Infrastructural Actions

- Perform a feasibility study to improve flood resilience of well fields
- Determine if new generators in the well fields would mitigate power loss during storm events and continue to provide access to water
- Assess the age of the water distribution system to identify improvement/replacement
- Explore deeper well siting

Questions/Discussion

- Input on Infrastructural Actions



Additional Societal Actions



Showcase Cinemas, Seekonk Sign During 2020 Covid-19 Quarantine. © Caitlin Howls 2020

High Priority Societal Actions

- Evaluate centralized locations for affordable senior housing on municipal or other land
- Improve town's ability to accommodate and transport individuals with special service needs during hazard occurrence
- Acquire handicap-accessible vehicles to assist with transportation
- Perform an ADA audit of public buildings
- Maintain or expand existing mutual aid agreements

Medium Priority Societal Actions

- Increase access to cooling stations. Increase emergency resources for elderly population
- Determine vulnerable population size, general locations, potential needs to better inform emergency response programs
- Develop an education plan for communicating during emergencies
- Host forum to discuss community and municipal interests and involvement
- Develop an education program to distribute to schools and camps regarding natural hazards
- Investigate severe weather planning and preparation. Look for advanced methods of snow storage and removal for DPW.

Medium Priority Societal Actions Continued (2 of 2)

- Take advantage of existing outreach opportunities (e.g. Census) to improve dissemination of information to vulnerable populations
- Improve communication during emergencies by providing in multiple languages
- Incentivize employment of multi-lingual emergency responders
- Investigate and/or revise emergency response plan (currently outdated) and make this plan available to other town departments and stakeholders.
- Evaluate/develop plan for pet/domestic animal care during evacuation/shelter
- Provide additional means of transportation for residents (including busing and other public transit).

Lower Priority Societal Actions

- Evaluate capacity of existing shelters to accommodate excess population working in and traveling through town
- Develop plan for road closures to respond to hazards
- Determine population size, general locations, potential needs to better inform emergency response programs
- Access multi-lingual forms of emergency notifications
- Establish outreach commissions to improve communication with vulnerable populations
- Develop education plan regarding distribution/retail of non-native/invasive species

Lower Priority Societal Actions Continued (2 of 2)

- Develop a plan for businesses to better operate during emergency situations
- Explore alternative forms of government that improve representation
- Maintain existing stormwater structures and increase storage capacity where possible.
- Examine feasibility of requiring wider roads for planning purposes (e.g., subdivision regs) and to assist plow drivers in snow events.

Questions/Discussion

- Input on Societal Actions

Additional Environmental Actions



High Priority Environmental Actions

- Access potential areas for retrofitting stormwater management systems to increase water quality treatment and improve infiltration
- Develop and maintain stormwater regulations
- Improve monitoring of existing stormwater management systems
- Continue to work with state and federal partners for remediation/redevelopment of Attleboro Dye Works site
- Inventory possible sources of contamination with community-wide assessment, especially regarding vulnerable populations

High Priority Environmental Actions Continued (2 of 4)

- Work with MDAR to improve quality of runoff with pesticides and implement through the MS4 program
- Upgrade septic system requirements to treat higher levels of pollution
- Continue to monitor water quality for private water supplies in critical areas
- Incorporate radio cabinet maintenance into town-wide invasive species/pest management plan
- Include open space in town-wide invasive species/pest management plan

High Priority Environmental Actions Continued (3 of 4)

- Evaluate nature-based solutions for pest management (e.g. bat houses)
- Provide education to the public regarding the dangers of standing water
- Develop a regional deer management program
- Perform analysis (or hire consultant to do so) to perform a groundwater elevation analysis and plan for future impacts (and effects on development)
- Prioritize completion of OSRP and evaluate related projects for funding opportunities

High Priority Environmental Actions Continued (4 of 4)

- Identify and acquire additional open space parcels, particularly those connecting Town-owned open space
- Prepare site-specific resource management plans with invasive and pest-management and public access components
- Acquire additional conservation land
- Incorporate potential for hazard occurrence into design of trail facilities and other passive recreation opportunities

Medium Priority Environmental Actions

- Assess yield of water supply wells relative to projected development trends
- Encourage rainwater collection/reuse for residential and commercial irrigation
- Evaluation additional land acquisition in vicinity of public water supply
- Implement tree planting program
- Encourage public to partake In Energy Savings Tree Program

Lower Priority Environmental Actions

- Perform feasibility study to raise well grades (thus placing them out of the floodplain)
- Explore alternate power sources, including tie-in with other towns and local generator supplying
- Examine effectiveness of water use restrictions and enforce these rules where necessary
- Investigate opportunities to preserve additional areas of flood zone (beyond those which are already designated for open space)
- Continue to plan maintenance that is location-specific and prioritize culverts and stormwater infrastructure within flood zones

Lower Priority Environmental Actions Continued (2 of 2)

- Continue to administer wetlands protection regulations through permitting (Conservation Commission)
- Assess and implement additional critter crossings
- Identify and acquire open parcels connecting Town Owned open space

Questions/Discussion

- Input on Environmental Actions



Public Input

- Remote Session to be broadcast live on Seekonk TV-9
 - Presentation to be re-broadcast at later date
- Presentation materials to be made available at www.seekonk-ma.gov
- Submit written public comments to Conservation Agent, Jennifer Miller via email at jmiller@seekonk-ma.gov through Monday, May 11th
- Additional public input opportunities at Public Listening Session #2

Next Steps

- Hold listening session #2 to present final list of priority actions to Board of Selectmen: May 2020, TBD
- Provide draft summary report/HMP for public review
- Incorporate listening session results and comments into final summary report/HMP
- Identify potential Action Grant projects
- Submit final summary report/HMP to EEA to receive MVP designation, and to MEMA and FEMA for review and comment
- Incorporate MEMA/FEMA comments on HMP

2nd Public Listening Session

Municipal Vulnerability Preparedness (MVP) Planning Grant

Wednesday, June 10th, 2020

****Remote Session to be broadcast live on Seekonk TV-9****



The Town of Seekonk invites the public to provide input on the Community Resiliency Building process, guiding future resiliency planning and improvement projects. This process, made possible by a Municipal Vulnerability Preparedness (MVP) Planning Grant from the Executive Office of Energy and Environmental Affairs, leverages local knowledge and the experience of community stakeholders to develop an action plan and a Hazard Mitigation Plan (HMP).



Please note, due to current restrictions on public gatherings, the public listening session will be held during the BOS meeting as a public hearing agenda item and broadcast live on Seekonk TV-9 after 7:00pm on Wednesday, June 10th. During the 2nd Public Listening Session, we will outline the draft MVP/HMP document, with the opportunity for comments and questions to follow.



The presentation materials will be available prior to the meeting on the Town's website, www.seekonk-ma.gov and public comment may be made in writing to Conservation Agent, Jennifer Miller via email at jmiller@seekonk-ma.gov through Wednesday, June 24th.





**** AMENDED AGENDA ** (original agenda was posted June 5, 2020 at 11:16 am)**
BOARD OF SELECTMEN
WEDNESDAY, June 10, 2020 – 7:00 p.m.
Via Teleconference due to COVID-19

Per Governor Baker's Order suspending certain provisions of the Open Meeting Law, G.L. c. 30A, sec. 20 the public will not be allowed to physically access this Board of Selectmen meeting. However, public comments and questions may be submitted to the Board in advance of the meeting by completing the Google Form below prior to the meeting by Monday, June 8, 2020 by noon. Additionally, the meeting will be conducted through Zoom; public access information for participation during the Public Listening Session will be provided on the Town's website www.seekonk-ma.gov

https://docs.google.com/forms/d/1g4WZHCWGJbAJASPezyNq75aQjMJj4usG4X_tQghaQbM/edit

MGL C 30A § 20(f) REQUIRES ANY PERSON RECORDING MUST NOTIFY CHAIRMAN AT THE BEGINNING OF THE MEETING

CALL REGULAR MEETING TO ORDER

BOARD AND COMMITTEE OPENINGS UPDATE

Volunteers are needed on the: Capital Improvement Committee (1 BOS); Commission on Disability (5-13 BOS); Economic Development Committee (4 BOS); Energy Committee (1 BOS); Historical Commission (2 BOS); Recycling Committee (up to 3 BOS); Zoning Board of Appeals (2 alternates)

PRIORITY MATTERS

- A. Consider the appointment of Eric Schoonmaker to the position of Patrol 3rd Class effective June 19, 2020

PUBLIC LISTENING SESSION

- A. Second Public Listening Session for the Municipal Vulnerability Preparedness (MVP) Planning Grant

OLD BUSINESS

- A. Continued discussion with Flying Goose regarding a marijuana manufacturing and transportation business to be located at 1853 Fall River Avenue

NEW BUSINESS

- A. Consider the Bid Award for Department of Public Works 20-01 Cold Planing & Bituminous Concrete Overlay
- B. Consider the Bid Award for Department of Public Works 20-02 Pavement Reclamation
- C. Consider and sign the DiGiorgio Associates Inc. contract for Architectural Services for phase II of the 540 Arcade Avenue building
- D. Consider establishing a process for approving requests to allow outdoor dining service for local restaurants
- E. Assign Warrant Articles for Spring Town Meeting
- F. Consider the approval of a Town Administrator evaluation tool
- G. Consider approving the minutes from May 27, 2020

OTHER BUSINESS

- A. Discuss other topics not reasonably anticipated by the Chairman 48 hours before the meeting

TOWN ADMINISTRATOR'S REPORT

- A. Radio Project
- B. DPW Facility
- C. Senior Center Phase II/540 Arcade Avenue
- D. Playground at Town Hall
- E. Animal Shelter
- F. South End Fire Station
- G. Old Town Hall
- H. Cable Contract
- I. Policies and Procedures
- J. ADW/Maple Avenue Project

COMMUNITY SPEAKS – A list of questions submitted to the Board that were not addressed during the meeting will be read by the Board and the Board will provide possible updates

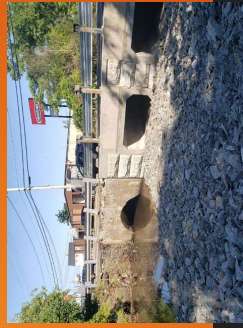
EXECUTIVE SESSION

- A. Negotiations with Dispatch AFSCME Council 93 per MGL c 30A § 21(a) (3) as having the discussion in open session would be detrimental to the litigation or bargaining position of the town
- B. Negotiations with DPW AFSCME Council 93 per MGL c 30A § 21(a) (3) as having the discussion in open session would be detrimental to the litigation or bargaining position of the town
- C. To conduct strategy sessions with respect to negotiations with the Finance Director, per MGL c 30A § 21(a) (2) as having the discussion in open session would be detrimental to the litigation or bargaining position of the town.
- D. To conduct strategy sessions per MGL c 30A § 21(a) (3) with respect to collective bargaining and litigation if an open meeting may have a detrimental effect on the bargaining or litigating position of the Town and the Chair so declares - United Steelworkers Local 9517- Arbitration
- E. To conduct strategy sessions with respect to negotiations with the Fire Chief per MGL c 30A § 21(a) (2) as having the discussion in open session would be detrimental to the litigation or bargaining position of the town.
- F. Consider approval of Executive Session minutes of January 22, 2020
 - i. To discuss the reputation, character, physical condition or mental health, rather than professional competence, of an individual, or discuss the discipline or dismissal of, or complaints or charges against, a public officer, employee, staff member or individual per MGL c 30A § 21(a) (1) as having the discussion in open session would be detrimental to the litigation or bargaining position of the town.
- G. Consider the approval of Executive Session minutes of February 5, 2020.
 - i. To discuss the reputation, character, physical condition or mental health, rather than professional competence, of an individual, or discuss the discipline or dismissal of, or complaints or charges against, a public officer, employee, staff member or individual per MGL c 30A § 21(a) (1) as having the discussion in open session would be detrimental to the litigation or bargaining position of the town.
 - ii. To consider the purchase, exchange, lease or value of real property pursuant to MGL c 30A § 21(a) (6) as having the discussion in open session would be detrimental to the negotiating position of the town (320 Fall River Ave; Map 14/Lot 78, and 350 Fall River Ave; Map 14/Lot96,)
- H. Consider the approval of Executive Session minutes of March 4, 2020
 - i. To consider the purchase, exchange, lease or value of real property pursuant to MGL c 30A § 21(a) (6) as having the discussion in open session would be detrimental to the negotiating position of the town (Map 16/Lots 30 & 117)

******VOTES MAY BE TAKEN ON ANY OF THE ABOVE ITEMS******

**ALL BOARD OF SELECTMEN MEETINGS ARE RECORDED VIA AUDIO AND VIDEO
AND ARE BROADCAST LIVE ON SEEKONK CHANNEL 15**

NEXT BOARD MEETING WEDNESDAY, June 24, 2020



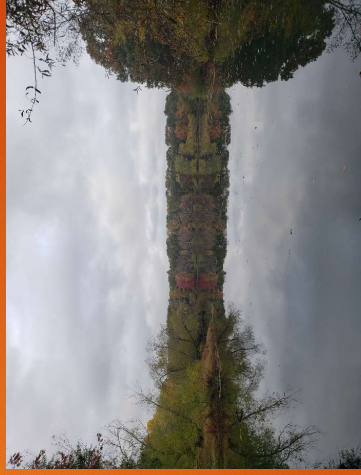
Town of Seekonk Municipal Vulnerability Preparedness and Hazard Mitigation Plan

Presented By:



BEALS + THOMAS Public Listening Session #2
Board of Selectmen Meeting
June 10, 2020

Welcome and Introduction



Jennifer Miller

Conservation Agent

Town of Seekonk

Mary Kate Schneeweis

Senior Environmental Specialist

Beals & Thomas

Municipal Vulnerability Preparedness (MVP) Program



www.CommunityResilienceBuilding.org

Municipal Hazard Mitigation Plan

- Completed using funds from MVP Planning Grant
- Required for municipalities to receive Federal Emergency Management Agency (FEMA) funding for non-emergency disaster assistance
- Updates required every 5 years
- Must address natural hazards outlined in the Massachusetts Integrated State Hazard Mitigation and Climate Adaptation Plan (SHMCAP)



FEMA

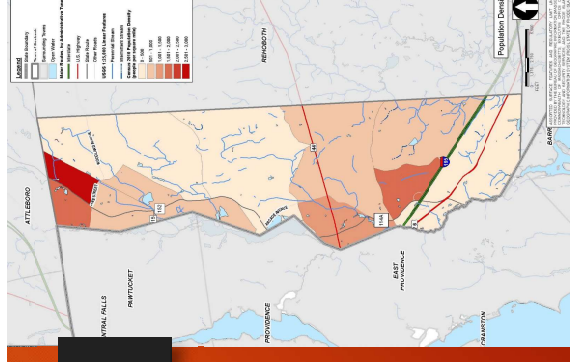


Draft Hazard Mitigation Plan Overview

- Section I: Overview
 - Town Profile
- Section II: Community Resilience Building Workshop
 - Intro to Local Planning Process and Public Participation
 - Overview of CRB Workshop
 - Other Local and Regional Planning Initiatives
- Section III: Top Hazards and Vulnerable Areas
 - Intro to Known Natural Hazards
 - Top Hazards Identified by Stakeholders
- Critical Facilities and Specific Areas of Community Concern
 - Geographic
 - Infrastructural
 - Societal
 - Environmental
- Specific Categories of Concerns and Challenges
 - Strengths
 - Vulnerabilities
- Section IV: Top Recommendations and Strategies to Improve Resilience
 - Priority Actions

Section I: Overview

- Population, Housing, Land Use Characteristics
- Open Space/Conservation Land
- Water Resources/Water Quality/Utilities
- Regional Economy
- Historic and Cultural Resources
- Demographic Data and Projections

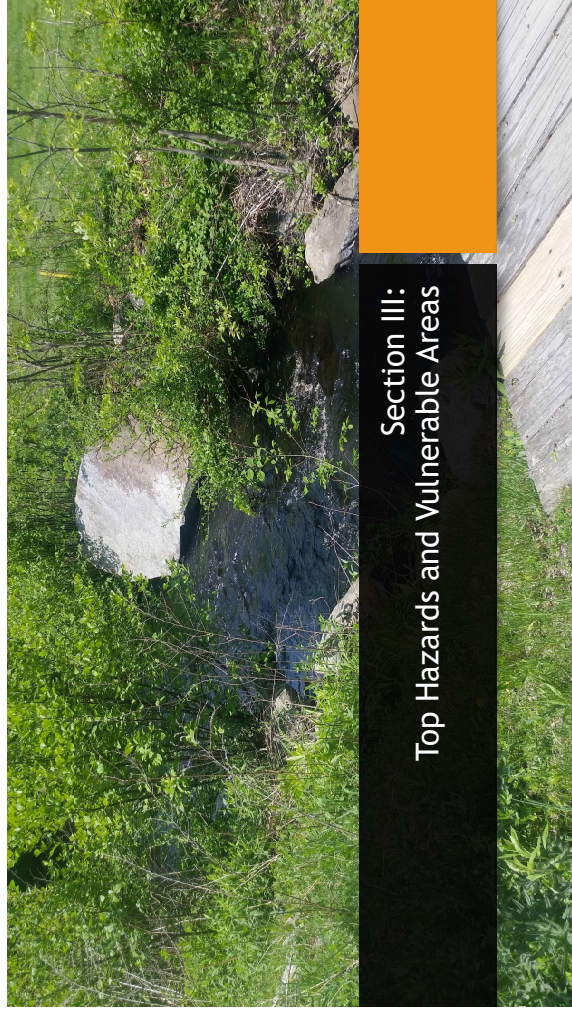


January Workshop Objectives

- Define extreme weather and natural and climate-related hazards
- Identify existing and future vulnerabilities and strengths
- Develop and prioritize actions for the community and broader stakeholder networks
- Identify opportunities for the community to advance actions to reduce risks and build resilience.



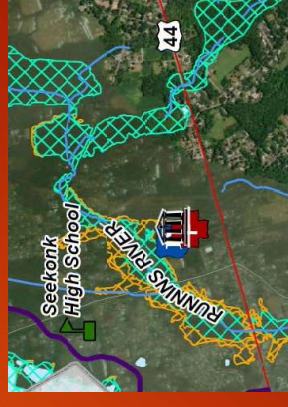
Section II: Community Resilience Building Workshop



Section III: Top Hazards and Vulnerable Areas

Hazard Occurrence and Impact

- Potential impact of hazard
 - e.g. Estimates of losses from flooding
- Local examples of each natural hazard (or potential of examples are not available/documented)
 - e.g. Flood-related disaster declarations
- Critical areas located within potential area of impact



SHMCAP Natural Hazards - considered in Seekonk

Inland flooding
Coastal flooding
Average and extreme temperatures
Drought
Coastal Erosion
Wildfire
Landslides
Tsunami
Invasive species
Hurricanes/tropical storms
Severe winter storm/nor'easter
Tornadoes
Other severe weather
Earthquakes

Top Hazards Prioritized by the CRB Workshop



- Drought/Heat
- Inland Flooding
- Severe Storms
- Extreme Winter Weather
- Invasive Species



Section IV: Top Recommendations and Strategies to Improve Resilience



January Workshop: Top Priorities

- Assess the condition/sizing of existing culverts, dams, and bridges, incorporating need to accommodate climate projections for stormwater
- Assess the extent of elderly and disabled populations and the ability of emergency shelters to accommodate their needs
- Identify roads susceptible to flooding and continue/improve existing maintenance programs (e.g. tree trimming)
- Prepare an invasive species and pest management plan and educate the public

MVP Action Grants

- Available to complete projects identified as priority actions through the CRB process
 - Town eligible to apply upon completion of second listening session
- Project categories include:
 - Planning, Assessments, and Regulatory Updates
 - Nature-based Solutions for Ecological and Public Health
 - Resilient Redesigns and Retrofits for Critical Facilities and Infrastructure

Proposed FY 2021-2022 MVP Action Grant Applications

- Town-wide Assessment of Hydraulic Restrictions
- Town-wide Flood Modeling Study



Town-wide Assessment of Hydraulic Restrictions

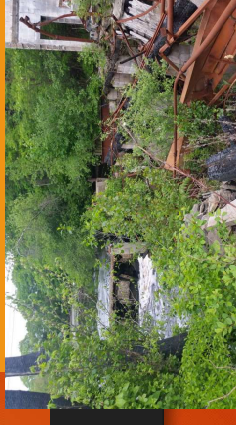
- Assess three municipally-owned hydraulic restrictions on Ten Mile and Runnins Rivers
 - Attleboro Dye Works Dam
 - Burr's Pond Dam
 - Runnins River Former Bridge Abutments
- Develop solutions that consider climate change projections, including nature-based options such as dam removal
- Design and permit proposed solutions

Related MVP Priority Actions

- Assess the condition/sizing of existing culverts, dams, and bridges, incorporating need to accommodate climate projections for stormwater (Top)
- Conduct engineering and construction of the Pond Street Bridge improvements (High)
- Evaluate and assess the Attleboro Dye Works and Burr's Pond dams to identify future improvements (High)

Town-wide Assessment of Hydraulic Restrictions

- Assess three municipally-owned hydraulic restrictions on Ten Mile and Runnins Rivers
 - Attleboro Dye Works Dam
 - Burr's Pond Dam
 - Runnins River Former Bridge Abutments
- Develop solutions that consider climate change projections, including nature-based options such as dam removal
- Design and permit proposed solutions



Related MVP Priority Actions

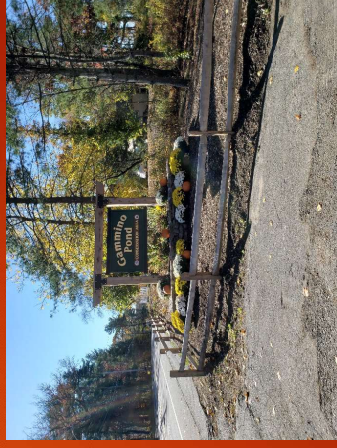
- Assess the condition/sizing of existing culverts, dams, and bridges, incorporating need to accommodate climate projections for stormwater (Top)
- Conduct engineering and construction of the Pond Street Bridge improvements (High)
- Evaluate and assess the Attleboro Dye Works and Burr's Pond dams to identify future improvements (High)

Town of Seekonk Commitments

- Submission deadline June 18, 2020
- Request that Board of Selectmen vote to authorize Town Administrator to sign and submit applications and letter of support on their behalf
- Required 25% match in previously appropriated funding and in-kind services
 - \$161K for Town-wide Assessment of Hydraulic Restrictions (includes construction costs to remove one of three structures)
 - \$25K for Town-wide Flood Modeling Study
- Grant scope of work must be completed by June 30, 2022

Public Comment

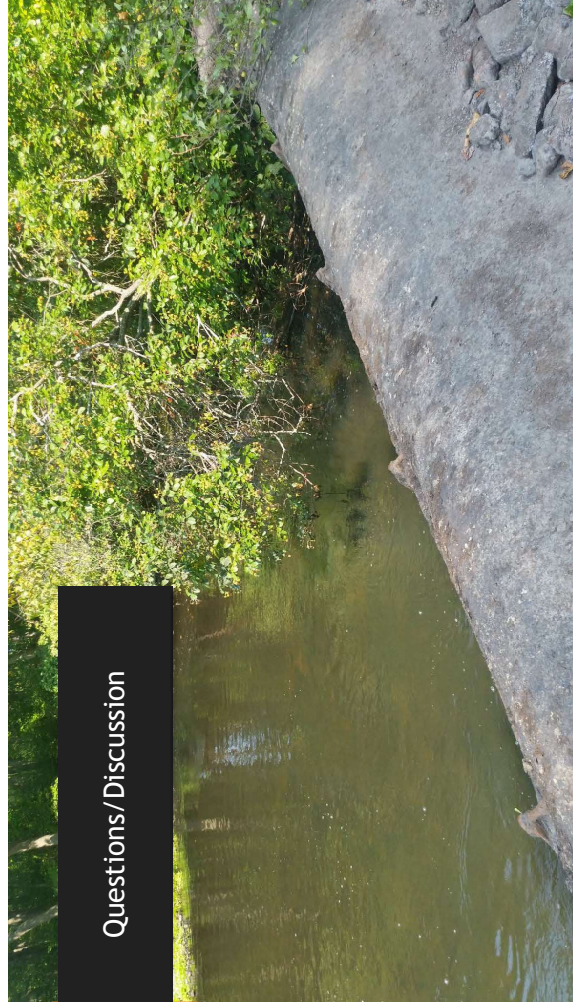
- Presentation materials and draft HMP will be available at www.seekonk-ma.gov
- Submit written public comments to Conservation Agent, Jennifer Miller via email at jmiller@seekonk-ma.gov through **Thursday, June 25th**



Next Steps

- Submit MVP Action Grant applications
- Incorporate listening session results and public comments into final summary report/HMP
- Submit final summary report/HMP to EEA and MEMA
- Incorporate MEMA comments and submit updated draft to FEMA for review and comment
- Board of Selectmen to vote to adopt final plan upon FEMA approval

Questions/Discussion



Mary Kate Schneeweis

From: Jennifer Miller <jmiller@seekonk-ma.gov>
Sent: Wednesday, June 10, 2020 11:36 AM
To: Mary Kate Schneeweis
Subject: FW: MVP: Remote Public Listening Session w/ Live Broadcast via Seekonk TV-9
Attachments: IMG_0533.jpg; IMG_0535.jpg; IMG_0534.jpg

[Public comment from 1st session...](#)

From: Charles Beauchamp [mailto:charlesbeauchamp@msn.com]
Sent: Monday, May 11, 2020 8:27 AM
To: Jennifer Miller <jmiller@seekonk-ma.gov>; Willit Mason <wmason4445@gaill.com>; John Alves <alvesmiller@comcast.net>; John Aubin <jaubin@seekonk-ma.gov>; Phoebe Dunn <phoebeleed@gmail.com>; David Sullivan Jr. (d.sullivan.jr@comcast.net) <d.sullivan.jr@comcast.net>
Subject: Re: MVP: Remote Public Listening Session w/ Live Broadcast via Seekonk TV-9

MVP comments

I want to thank you for Inviting me participate in the MVP listening session last week.

I got the sense that one primary objective of the MVP is to prepare for the vulnerabilities due to climate change. To that end I think we should put more effort into mitigating climate change versus reacting to it. That is, an ounce of prevention is worth a pound of cure.

Towards mitigating climate change one good environmental priority is planting trees. However, if this is a priority, shouldn't there be a higher priority to take actions to mitigate the cutting down of trees. I could see the way to do this would be to pass zoning laws that require all new developments to consider alternatives with the least number of trees cut down. Or better yet. require a permit to justify cutting down any large trees even on private property. In Oakland CA the law requires a permit to cut down any tree over 9 inches in diameter, even on private property.

As an example of what I am proposing is what could have been done with the recent playground development. A lot of trees were taken out to put in the parking lot. One of these trees was over 100-years-old. (See attached photos. It is difficult to count the rings but I estimate >100.) I suggest that an alternative would have been to put the parking lot in the field between the Townhall and the Animal Shelter. It seems sadly ironic to me that we built a playground for the children but cut down about an acre of trees that will make the climate crisis worse for those children. If we really cared about our children we would not want to cut down anymore trees. **If you planted one tree today the first children to play on that playground will have great-grandchildren before it completely replaces the 100-year-old tree that was cut down. Not to mention the other trees that were cut down. If you want to have a timely impact on climate change you would have to plant many acres of trees to replace the ones cut down for the playground parking lot.**

Another healthy 100-year-old tree was recently cut down at the intersection of Olney and Cole Streets. For the life of me, I cannot see any justification for cutting down that tree.

Two things we should learn from the COVID-19 pandemic are: (1) our complex society and economy are very fragile and (2) dire scientific predictions can come true. The climate scientists are predicting that the effects of climate change will make the pandemic seem mild. Furthermore, scientist predict that we need to take many radical actions in the next decade to prevent going over a tipping point from which there is no return from the climate crises. The above action I am proposing take to stop cutting down old trees is not even radical. It is just one of many actions needed to mitigate the climate crisis.

Respectfully submitted

Charles Beauchamp

From: Jennifer Miller <jmiller@seekonk-ma.gov>

Sent: Friday, April 24, 2020 2:46 PM

To: Neal Abelson <nabelson@seekonk-ma.gov>; 'adione@comcast.net' <adione@comcast.net>; 'jaguiar@townofdighton.com' <jaguiar@townofdighton.com>; Bruce Alexander <balexander@seekonk-ma.gov>; 'nelsonalmeida@comcast.net' <nelsonalmeida@comcast.net>; 'alvesmiller@comcast.net' <alvesmiller@comcast.net>; 'selectman.andrade@gmail.com' <selectman.andrade@gmail.com>; John Aubin <jaubin@seekonk-ma.gov>; 'charlesbeauchamp@msn.com' <charlesbeauchamp@msn.com>; 'gbessette@barrington.ri.gov' <gbessette@barrington.ri.gov>; 'mbourque@seekonkfd.com' <mbourque@seekonkfd.com>; 'bbraunsdorf@comcast.net' <bbraunsdorf@comcast.net>; 'robbernardo@seekonkwaterdistrict.com' <robbernardo@seekonkwaterdistrict.com>; Dave Cabral <dcabral@seekonk-ma.gov>; Shawn E. Cadime <scadime@seekonk-ma.gov>; 'mike.campagnone@foth.com' <mike.campagnone@foth.com>; Ashley Cartwright <acartwright@seekonk-ma.gov>; 'brotherb2@comcast.net' <brotherb2@comcast.net>; Florice Craig <fcraig@seekonk-ma.gov>; 'alexundunwoodie@comcast.net' <alexundunwoodie@comcast.net>; 'Deputy Chief Enos' <Enod@seekonkpd.com>; 'enod@seekonkpd.com'; Brittney Faria <bfaria@seekonk-ma.gov>; 'Peter Fuller' <pfuller@seekonkpl.org>; 'KTGgroup@aol.com' <KTGgroup@aol.com>; Sharonlyne Hall <shall@seekonk-ma.gov>; 'Healy, Michael' <chief@seekonkfd.com>; 'seekonkmoderator02771@gmail.com' <seekonkmoderator02771@gmail.com>; Jessica Horsman <jhorsman@seekonk-ma.gov>; 'jarm@seekonkpd.com' <jarm@seekonkpd.com>; 'vickikinniburgh@aol.com' <vickikinniburgh@aol.com>; James LaFlame <jlaflame@seekonk-ma.gov>; 'lafg@seekonkpd.com' <lafg@seekonkpd.com>; 'slowery@seekonkfd.com' <slowery@seekonkfd.com>; 'Kate McPherson' <kmcpherson@savebay.org>; 'Bill Napolitano' <bnap@srpedd.org>; Scott Olobri <solobri@seekonk-ma.gov>; John Pozzi <jpozzi@seekonk-ma.gov>; 'jamieroac@me.com' <jamieroac@me.com>; 'gary@krazespeedequipment.net' <gary@krazespeedequipment.net>; 'jonathan_schiller@brown.edu' <jonathan_schiller@brown.edu>; 'jdsullivan01@gmail.com' <jdsullivan01@gmail.com>; 'd.sullivan.jr@comcast.net' <d.sullivan.jr@comcast.net>; 'jtroiano@eccountingsolutions.com' <jtroiano@eccountingsolutions.com>; David Viera-Yahoo <dviera5@yahoo.com>; 'wallace815@comcast.net' <wallace815@comcast.net>; 'thompson_webb_iii@brown.edu' <thompson_webb_iii@brown.edu>; 'czorra@aol.com' <czorra@aol.com>; 'Mary Kate Schneeweis' <mschneeweis@bealsandthomas.com>; 'Eric Las' <elas@bealsandthomas.com>; 'Caroline Booth' <cbooth@bealsandthomas.com>; Kim Lallier <klallier@seekonk-ma.gov>; Testa, Christina P. <ctesta@seekonk-ma.gov>; Kristen L'Heureux <klheureux@seekonk-ma.gov>; 'Andrew Gorman' <agorman@bealsandthomas.com>; 'Nick Santangelo' <NSantangelo@bealsandthomas.com>; Carol A. Days <directordays@seekonkpd.com>; Cody Peixoto <contactus@tv9seekonk.com> <contactus@tv9seekonk.com>

Subject: MVP: Remote Public Listening Session w/ Live Broadcast via Seekonk TV-9

Good afternoon, MVP Stakeholders.

I hope this email finds all of you and your loved ones healthy and safe.

Please find attached the agenda and PowerPoint presentation for the upcoming MVP public listening session. Again, this will be 1 of 2 public listening sessions, with this one focusing on reviewing the priority hazards/vulnerabilities and then the 2nd session will review the draft MVP/HMP document. Due to the current circumstances, it will be a remote listening session with Mary Kate and me reviewing presentation materials and asking for you, the stakeholders, to attend remotely and give feedback as we review the priority hazards. The public will **NOT** be able to call in to the remote session, but can watch it live via TV-9 and submit comments in writing for 2 wks after the broadcast.

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WHEN: Mon, 04/27 at 6pm

WHERE: From the comfort of your home ☺

HOW: **Please join my meeting from your computer, tablet or smartphone.**

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Please let me know if you have any questions or concerns. If you would like to be removed from these stakeholder emails, please let me know.

Respectfully,

Mhḡ ḡ Lihuh#P loohu

Conservation Agent

Town of Seekonk

100 Peck St

Seekonk, MA 02771

jmiller@seekonk-ma.gov

508.336.2944

Mary Kate Schneeweis

From: Jennifer Miller <jmiller@seekonk-ma.gov>
Sent: Wednesday, June 10, 2020 11:39 AM
To: Mary Kate Schneeweis
Subject: FW: MVP: Remote Public Listening Session w/ Live Broadcast via Seekonk TV-9

From 1st public listening session...

From: Lee Dunn [mailto:phoebeleed@gmail.com]
Sent: Monday, May 11, 2020 4:09 PM
To: Jennifer Miller <jmiller@seekonk-ma.gov>
Subject: Fwd: MVP: Remote Public Listening Session w/ Live Broadcast via Seekonk TV-9

----- Forwarded message -----

From: Lee Dunn <phoebeleed@gmail.com>
Date: Mon, May 11, 2020 at 9:33 AM
Subject: Re: MVP: Remote Public Listening Session w/ Live Broadcast via Seekonk TV-9
To: Charles Beauchamp <CharlesBeauchamp@msn.com>

Dear CB,

I have been mourning the grandfather tree at the corner of olney and cole as well. It created a welcome shady spot.

WHY? was it cut down?

phoebe

On Mon, May 11, 2020, 8:27 AM Charles Beauchamp <charlesbeauchamp@msn.com> wrote:

MVP comments

I want to thank you for Inviting me participate in the MVP listening session last week.

I got the sense that one primary objective of the MVP is to prepare for the vulnerabilities due to climate change. To that end I think we should put more effort into mitigating climate change versus reacting to it. That is, an ounce of prevention is worth a pound of cure.

Towards mitigating climate change one good environmental priority is planting trees. However, if this is a priority, shouldn't there be a higher priority to take actions to mitigate the cutting down of trees. I could see the way to do this would be to pass zoning laws that require all new developments to consider alternatives with the least number of trees cut down. Or better yet. require a permit to justify cutting down any large trees even on private property. In Oakland CA the law requires a permit to cut down any tree over 9 inches in diameter, even on private property.

As an example of what I am proposing is what could have been done with the recent playground development. A lot of trees were taken out to put in the parking lot. One of these trees was over 100-years-old. (See attached photos. It is difficult to count the rings but I estimate >100.) I suggest that an alternative would have been to put the parking lot in the field between the Townhall and the Animal Shelter. It seems sadly ironic to me that we built a playground for the children but cut down about an acre of trees that will make the climate crisis worse for those children. If we really cared about our children we would not want to cut down anymore trees. **If you planted one tree today the first children to play on that playground will have great-grandchildren before it completely replaces the 100-year-old tree that was cut down. Not to mention the other trees that were cut down. If you want to have a timely impact on climate change you would have to plant many acres of trees to replace the ones cut down for the playground parking lot.**

Another healthy 100-year-old tree was recently cut down at the intersection of Olney and Cole Streets. For the life of me, I cannot see any justification for cutting down that tree.

Two things we should learn from the COVID-19 pandemic are: (1) our complex society and economy are very fragile and (2) dire scientific predictions can come true. The climate scientists are predicting that the effects of climate change will make the pandemic seem mild. Furthermore, scientist predict that we need to take many radical actions in the next decade to prevent going over a tipping point from which there is no return from the climate crises. The above action I am proposing take to stop cutting down old trees is not even radical. It is just one of many actions needed to mitigate the climate crisis.

Respectfully submitted

Charles Beauchamp

From: Jennifer Miller <jmiller@seekonk-ma.gov>

Sent: Friday, April 24, 2020 2:46 PM

To: Neal Abelson <nabelson@seekonk-ma.gov>; 'adione@comcast.net' <adione@comcast.net>; 'jaguiar@townofdighton.com' <jaguiar@townofdighton.com>; Bruce Alexander <balexander@seekonk-ma.gov>; 'nelsonalmeida@comcast.net' <nelsonalmeida@comcast.net>; 'alvesmiller@comcast.net' <alvesmiller@comcast.net>; 'selectman.andrade@gmail.com' <selectman.andrade@gmail.com>; John Aubin <jaubin@seekonk-blue.gov>; 'charlesbeauchamp@msn.com' <charlesbeauchamp@msn.com>; 'gbessette@barrington.ri.gov' <gbessette@barrington.ri.gov>; 'mbourque@seekonkfd.com' <mbourque@seekonkfd.com>; 'bbraunsdorf@comcast.net' <bbraunsdorf@comcast.net>; 'robbernardo@seekonkwaterdistrict.com' <robbernardo@seekonkwaterdistrict.com>; Dave Cabral <dcabral@seekonk-ma.gov>; Shawn E. Cadime <scadime@seekonk-ma.gov>; 'mike.campagnone@foth.com' <mike.campagnone@foth.com>; Ashley Cartwright <acartwright@seekonk-ma.gov>; 'brotherb2@comcast.net' <brotherb2@comcast.net>; Florice Craig <fcraig@seekonk-ma.gov>; 'alexndunwoodie@comcast.net' <alexndunwoodie@comcast.net>; 'Deputy Chief Enos' (Enod@seekonkpd.com) <enod@seekonkpd.com>; Brittney Faria <bfaria@seekonk-ma.gov>; 'Peter Fuller' <pfuller@seekonkpl.org>; 'KTGgroup@aol.com' <KTGgroup@aol.com>; Sharonlynn Hall <shall@seekonk-ma.gov>; 'Healy, Michael' <chief@seekonkfd.com>; 'seekonkmoderator02771@gmail.com' <seekonkmoderator02771@gmail.com>; Jessica Horsman <jhorsman@seekonk-ma.gov>; 'jarm@seekonkpd.com' <jarm@seekonkpd.com>; 'vickikinniburgh@aol.com' <vickikinniburgh@aol.com>; James LaFlame <laflame@seekonk-ma.gov>; 'lafg@seekonkpd.com' <lafg@seekonkpd.com>; 'slowery@seekonkfd.com' <slowery@seekonkfd.com>; 'Kate McPherson' <kmcpherson@savebay.org>; 'Bill Napolitano' <bnap@srpedd.org>; Scott Olobri <solobri@seekonk-ma.gov>; John Pozzi <jpozzi@seekonk-ma.gov>; 'jamieroac@me.com' <jamieroac@me.com>; 'gary@krazespeedequipment.net' <gary@krazespeedequipment.net>; 'jonathan_schiller@brown.edu' <jonathan_schiller@brown.edu>; 'jdsullivan01@gmail.com' <jdsullivan01@gmail.com>; 'd.sullivan.jr@comcast.net' <d.sullivan.jr@comcast.net>; 'jtroiano@eccountingsolutions.com' <jtroiano@eccountingsolutions.com>; David Viera-Yahoo <dviera5@yahoo.com>; 'wallace815@comcast.net' <wallace815@comcast.net>; 'thompson_webb_iii@brown.edu' <thompson_webb_iii@brown.edu>; 'czorra@aol.com' <czorra@aol.com>; 'Mary Kate Schneeweis'

<mschneeweis@bealsandthomas.com>; 'Eric Las' <elas@bealsandthomas.com>; 'Caroline Booth' <cbooth@bealsandthomas.com>; Kim Lallier <klallier@seekonk-ma.gov>; Testa, Christina P. <ctesta@seekonk-ma.gov>; Kristen L'Heureux <klheureux@seekonk-ma.gov>; 'Andrew Gorman' <agorman@bealsandthomas.com>; 'Nick Santangelo' <NSantangelo@bealsandthomas.com>; Carol A. Days <directordays@seekonkpd.com>; Cody Peixoto (contactus@tv9seekonk.com) <contactus@tv9seekonk.com>

Subject: MVP: Remote Public Listening Session w/ Live Broadcast via Seekonk TV-9

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Respectfully,

Mhḡ ḡ lihu#P lochu

Conservation Agent

Town of Seekonk

100 Peck St

Seekonk, MA 02771

jmiller@seekonk-ma.gov

508.336.2944

Mary Kate Schneeweis

From: Jennifer Miller <jmiller@seekonk-ma.gov>
Sent: Wednesday, June 10, 2020 11:36 AM
To: Mary Kate Schneeweis
Subject: FW: Potential Town Solar Power Projects

Public comment for 2nd session...

From: Charles Beauchamp [mailto:CharlesBeauchamp@msn.com]
Sent: Tuesday, June 2, 2020 7:29 PM
To: Jennifer Miller <jmiller@seekonk-ma.gov>
Subject: Potential Town Solar Power Projects

Jennifer

Thanks for your call today. It was very informative.

FYI Below is the Energy Committee Report sent to the Town and presented to the BOS at their meeting on May 15, 2019 and the School Committee on June 20, 2019. The School Committee did get back to me and told me they were too busy with the Aiken expansion to do this last year. Now I am sure they are very busy trying to figure out how to reopen the schools in the Fall. I plan to reengage with them in the Spring. I never heard anything for the Town Administration or BOS.

I suggest that this could be part of the MVP, however, it would not be in any grant applications because no funding is needed to do this.

So my questions to you:

Is it appropriate to add this to the MVP?

Would having items in the MVP that will be funded by other means make your grant applications stronger?

Thanks
Charlie

From: Charles Beauchamp
Sent: Monday, April 22, 2019 3:55 PM
To: David Andrade <port42780@gmail.com>; Shawn Cadime <scadime@seekonk-ma.gov>; Chris Testa <ctesta@seekonk-ma.gov>; Dave Cabral <dcabral@seekonk-ma.gov>; jaubin@seekonk-ma.gov <jaubin@seekonk-ma.gov>; bbraunsdorf@comcast.net <bbraunsdorf@comcast.net>; Paul Waltz <pwaltz@hotmail.com>; tomcrowley@comcast.net <tomcrowley@comcast.net>
Subject: Potential Town Solar Power Projects

All

The Energy Committee has been investigating the potential for Town of Seekonk solar power projects. We would like to come to the May 1 BOS meeting to discuss our findings.

The State Department of Energy Resources (DOER) has a new a SMART program that replaces the SREC program. The Town can qualify for incentives under this program. Also, the Federal Government gives 30% tax credits for solar energy development but since the Town does not pay taxes we cannot take advantage of this. However, there are numerous energy companies that will use the state and federal incentives to develop turnkey solar projects for the Town under a lease agreement.

The SMART program has base rate power blocks with a specific megawatt capacity limit for each incentive block. Projects are assigned to a block until the capacity limit is met. These have a declining rate structure, so, subsequent blocks pay less than the previous.

The SMART program has incentive adders for the location and offtake of the project. Each adder block also has capacity limits with a declining rate structure.

The Energy Committee has considered 3 types of solar projects

1. Solar Carports at the Town School and Public Safety Building Parking Lots
2. Solar panel field at the town landfill located behind the American Legion on Fall River Avenue.
3. Roof-top solar panels at the town schools.

The Energy Committee has communicated with several potential solar energy developers and has come to the following conclusions.

Companies would not likely do a lease agreement for the solar carports because the ROI is too low. This is because the cost of the carport installation is significantly more than rooftop or ground mounted panels. Companies may install carports for free but it is likely that the only benefit to Seekonk would be the community solar credits (approx. 10% less than retail rate) as well as some avoided snow removal cost.

The below table summarizes estimated lease agreements for the landfill ground mounted and school rooftop mounted panels. A model layout for solar panels at the landfill is attached.

Location	Landfill behind American Legion	High School Rooftop	Middle School Rooftop	Martin School Rooftop	Total
First Year Payment	\$28,000	\$15,000	\$7,500	\$7,200	\$58,000
30 Year Payments	\$1,000,000	\$550,000	\$280,000	\$260,000	\$2,100,000
DC Power Capacity	1960	690	310	290	3250
SMART Base Rate Block	8	8	8	8	
Location Adder	Landfill	Building Mount	Building Mount	Building Mount	
Location Block	1	1	1	1	

Offtake Adder	Community Solar	Community Solar	Community Solar	Community Solar	
Offtake Block	9	9	9	9	

The following notes apply to the table:



1. These estimates are non-binding but serve to identify the commercial components for lease negotiations. These commercial components are derived from assumed SMART base rate and adder blocks which are subject to change.
2. The typical term of the lease would be 20 years with options for two 5-year extension,
3. The Town can expect to receive quarterly payments.
4. Typically, there will be a fixed percentage for an annual payment escalator
5. The Town Utility is National Grid
6. The Aiken School was omitted due to a miscommunication but could have rooftop solar panels.
7. The Energy Committee has been assured that solar panels can be mounted at the landfill without disturbing the cap seal. Structural analysis will be done to assure that roofs can hold the panel load. Typically, no reinforcement is required.



We look forward to discussing this with the BOS



Respectfully submitted
Charles Beauchamp
Energy Committee Chair
401-864-5731

Appendix F

Completed Risk Matrices

Community Resilience Building Risk Matrix				 		Green Group		www.CommunityResilienceBuilding.org			
H-M-L priority for action over the Short or Long term (and Ongoing) V = Vulnerability S = Strength				Top Priority Hazards (tornado, floods, wildfire, hurricanes, earthquake, drought, sea level rise, heat wave, etc.)							
Features		Location	Ownership	V or S	Flooding	Winter Weather	Severe Storms	Invasive Species	Priority H - M - L	Time Short Long Ongoing	
Infrastructural											
Bridges/Culverts/Dams	Townwide	Varies	V/S	Conduct assessment of the condition and capacity of existing infrastructure, focusing on culverts and stormwater facilities in older neighborhoods					H	O	
				Conduct engineering and construction of the Pond Street Bridge improvements							
				Evaluate and assess the Attleboro Dye Works and Burr's Pond dams to identify future improvements							
				Assess vulnerabilities to single-phase electric power system from pole age and trees with a certified arborist							
Utilities (electric, communication, water)	Townwide	Varies (water district, utility companies)	V	Assess the age of the water distribution system to identify improvement/replacement					H	O	
				Explore cooperative agreements with neighboring water supplies							
				Evaluate installation of solar on municipal buildings					M/L	L	
				Include low-lying, flood-prone roadways in bridge/dam/culvert evaluation							
Transportation	Townwide	Varies (State (RI/MA), Town)	V/S	Expand public transportation opportunities into vulnerable population areas (e.g. central Seekonk) to improve emergent evacuation and travel during hazard occurrences					M	L	
				Encourage alternative transportation		Evaluate plowing contracts relative to nearby municipalities to improve snow clearing during storm events			H	L	
				Consider resilient design alternatives for construction of south-end fire station							
				Conduct study of coverage of public safety radio network					H	L	
Public Safety	Specific	Town	V/S	Set up pest management contract for radio cabinet to maintain communication channels during emergencies							
Emergency Management (shelters, radio station, generators)	Specific	Town	V/S	Evaluate existing municipal buildings for additional shelter capacity and adequacy of amenities					H	O	
Athletic Facilities	Townwide	Town	V	Provide additional generator capacity at emergency shelter sites							
				Improve stormwater management at sports fields to improve flood control							
				Develop plan for severe storm damage outside of DPW general maintenance scope					M/L	L	
Societal											
Senior/Disabled Populations	Townwide	Private	V	Evaluate centralized locations for affordable senior housing on municipal/other land					H	O	
				Improve town's ability to accommodate and transport individuals with special service needs during hazard occurrence							
				Acquire handicap-accessable vehicles to assist with transportation							
				Evaluate capacity of existing shelters to accommodate excess population working in and traveling through town					L	L	
Non-Resident Population	Townwide	Private	V	Develop plan for road closures to respond to hazards							
Cultural Tradition	Townwide	Private	V	Establish outreach commissions to improve communication with vulnerable populations					L	L	
Communication (Reverse 911, Collaboration, Cable TV)	Townwide	Town	S	Take advantage of existing outreach opportunities (e.g. Census) to improve dissemination of information to vulnerable populations							
				Improve communication during emergencies by providing in multiple languages					M	S	
				Incentivize employment of multi-lingual emergency responders							
				Maintain or expand existing mutual aid agreements					H	S	
Mutual Aid/Public Safety	Townwide	Town	V	Explore alternative forms of government that improve representation					L	O	
Form of Government	Townwide	Town	V	Evaluate/develop plan for pet/domestic animal care during evacuation/shelter					M	L	
Domestic/Farm Animals	Townwide	Private	V								
Environmental											
Sources of Contamination (industrial, agricultural, wastewater treatment facility)	Townwide	Varies	V	Continue to work with state and federal partners for remediation/redevelopment of Attleboro Dye Works site		Continue to work with state and federal partners for remediation/redevelopment of Attleboro Dye Works site			H	O	
				Inventory possible sources of contamination with community-wide assessment, especially vulnerable populations		Inventory possible sources of contamination with community-wide assessment, especially vulnerable populations					
				Work with MDAR to improve quality of runoff with pesticides and implement through the MS4 program		Work with MDAR to improve quality of runoff with pesticides and implement through the MS4 program					
				Prioritize completion of OSRP and evaluate related projects for funding opportunities		Prioritize completion of OSRP and evaluate related projects for funding opportunities			H	S	
OSRP/Conservation/Parks and Recreation	Townwide	Town	S	Acquire additional conservation land		Acquire additional conservation land			H	O	
Conserved Land	Townwide	Varies	V/S	Prepare site-specific resource management plans with invasive and pest-management and public access components		Prepare site-specific resource management plans with invasive and pest-management and public access components					
				Acquire additional conservation land		Acquire additional conservation land			H	O	
				Incorporate potential for hazard occurrence into design of trail facilities and other passive recreation opportunities		Incorporate potential for hazard occurrence into design of trail facilities and other passive recreation opportunities			H	O	
Public Water Supply	Specific	Water District	V/S	Assess yield of water supply wells relative to projected development trends					M	L	
				Encourage rainwater collection/reuse for residential and commercial irrigation							
				Evaluation additional land acquisition in vicinity of public water supply							
Invasive/Pest Management	Townwide	Varues	V	Incorporate radio cabinet maintenance into townwide invasive species/pest management plan					H	O	
				Include open space in townwide invasive species/pest management plan							
				Educate public on prevention of invasive species spread							
				Evaluate nature-based solutions for pest management (e.g. bat houses)							

Community Resilience Building Risk Matrix						 Yellow Group		www.CommunityResilienceBuilding.org				
H-M-L priority for action over the S hort or L ong term (and O ngoing) V = Vulnerability S = Strength				Top Priority Hazards (tornado, floods, wildfire, hurricanes, earthquake, drought, sea level rise, heat wave, etc.)							Priority	Time
				Inland Flooding		Drought/Heat		Extreme Winter Weather		Severe Storms		H - M - L
Features	Location	Ownership	V or S									
Infrastructurel												
Stormwater Infrastructure, Including Dams, Bridges, and Groundwater Studies.	Townwide	Town/State	V/S	Continue annual maintenance and upgrade infrastructure		Work on an active/annual maintenance plan		Continue managment of stormwater infrastructure, including culvert cleaning.		M-H	S (Inventory) O (Maint.)	
						Generate an inter-municipal plan						
Electrical Utilities	Townwide	Private	V/S			Selective tree cutting to remove hazard trees from roadways.		Purchase portable generators for emergency use		M-H	S/O	
Town Buildings/Generators/Structures	Townwide	Town	S		Update/finish cooling stations for public use during drought or extreme heat.	Upgrade/update heating systems in older buildings and assess overall resiliency of buildings to storm events.				H	O	
Water Infrastructure (wells and connection with Pawtucket)	Townwide	Private-Public Partnership	S	Perform a feasibility study to improve flood resilience of well fields.	Explore deeper well siting		Determine if new generators in the well fields would mitigate power loss during storm events and continue to provide access to water.				L	L
Technology and Equipment	Townwide	Municipal	S			Investigate additional potable water sources		Continue advancing the capacity of town's snow and ice operation		M	O	
Road Access (lack of major artery roads from north to south)	Townwide	Town/State	V		Plan for selective tree removal and identify specific hazards that would disrupt traffic between the north and south portions of town.					M	O	
Societal												
Major Population Centers (and the fact that they are located outside of the flood zone)	Townwide	Private	S	Maintain existing stormwater structures and increase storage capacity where possible.		Examine feasibility of requiring wider roads for planning purposes (e.g., subdivision regs) and to assist plow drivers in snow events.				L	O	
Water Restrictions/Rule Making	System/Town-Specific	Private	S		Examine effectiveness of water use restrictions and enforce these rules where necessary.					L	O	
					Increase access to cooling stations. Expand cooling stations to multiple buildings.					M	L	
Public Housing	Localized to Specific Areas	Private	V		Provide additional means of transportation for residents (including busing and other public transit).					M	L	
Elderly Population	Townwide	Private	V		Increase access to cooling stations. Increase emergency resources for elderly population.							
Weather Forecasting & Emergency Response Time	Townwide	Private	S			Investigate severe weather planning and preperation. Look for advanced methods of snow storage and removal for DPW.				M	O	
Inter-departmental Communication	Townwide	Private	S	Investigate and/or revise emergency response plan (currently outdated) and make this plan available to other town departments and stakeholders.							M	O
Environmental												
Lack of Coastal Influence (fact that most of the town is 'inland')	Specific Locations	Public and Private	S	Investigate opportunities to preserve additional areas of flood zone (beyond those which are already designated for open space).		Continue to plan maintenance that is location-specific and prioritize culverts and stormwater infrastructure within flood zones				L	O	
Low-lying areas, flood zones, and wetlands	Townwide	Public and Private	S	Continue to administer wetlands protection regulations through permitting (Conservation Commission)							L	O
High Groundwater	Townwide	Public and Private	S/V	Perform analysis (or hire consultant to do so) to perform a groundwater elevation analysis and plan for future impacts (and effects on development)							H	S/L/O
Geography	Townwide	Public and Private	S/V			Perform forest and tree maintenance, including hazard tree removal.				M	O	
Tree Cover (speficically tree cover along roads)	Townwide	Public and Private	V			Perform selective tree removal to prevent hazards to traffic and public safety.				M	O	
Water Supply	Townwide	Quasi-municipal	S	Perform feasibility study to raise well grades (thus placing them out of the floodplain)	Continue water restrictions and enforce said rules when necessary		Explore alternate power sources, including tie-in with other towns and local generator supplying.				L	L

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				Inland Flooding		Severe Storms		Extreme Winter Weather		Invasive Species	
Features	Location	Ownership	V or S								
Infrastructural											
Roads	Townwide	Municipal	V/S	Identify roads susceptible to flooding	Maintain tree trimming program		Maintain roadside/ROW mowing program		H	O	
Dams/Culverts	Specific	Public/Private	V			Maintain winter preparedness program					
Stromwater Management Systems	Townwide	Municipal/Private	V	Access conditions of dams and culverts and develop a program for routine/periodic maintenance						H	O
Utilities	Townwide	Municipal/Private	V/S	Promote use of Municipal water supply		Continue to coordinate with National Grid regarding locating and protecting existing OHW and UE				M	O
Emergency Response Program	Townwide	Municipal	V/S	Continue roadside/ROW maintenance programs						M	S
Septic/Waste Management	Townwide	Private	V	Maintain and upgrade existing Emergency Response Plan						M	L/O
				Access existing evacuation routes							
				Formalize Emergency Notification System							
				Access existing septic systems in floodzonees							
				Access opportunities to connect commerical developments to existing sewers							
				Evaluate the cost of a Municipal sewer system							
				Continue to monitor and enforce Title V requirements							
Societal											
Elderly Population	Townwide	Private	V	Determine population size, general locations, potential needs to better inform emergency response programs						M	O/S
Homeless/Transient Community	Townwide	Private	V	Develop an education plan for communicating during emergencies							
Children/Youth	Townwide	Private	S	Determine population size, general locations, potential needs to better inform emergency response programs						M	S
Dissabled Persons	Townwide/ Specific North	Private	V	Develop an education plan for communicating during emergencies							
Non-English Speaking Community	Townwide/ Specific North	Private	V	Host forum to discuss community and municipal interests and involvement						H	O/S
Commerse/Farmers	Townwide/ Specific	Private	V/S	Develop an education program to distribute to schools and camps regarding natural hazards							
				Determine population size, general locations, potential needs to better inform emergency response programs						L	S
				Perform an ADA audit of public buildings							
				Determine population size, general locations, potential needs to better inform emergency response programs						L	L
				Access multi-lingual forms of emergency notifications							
				Develop a plan for businesses to better operate during emergency situations							
Environmental											
Surface Water Quality	Townwide	Private/Public	V/S	Access potential areas for retrofitting stormwater management systems to increase water quality treetment and improve infiltration						H	O/S
Habitat Connectivity	Townwide	Private/Public	V/S	Develop and mainatin stormwater regulations							
Aquifer/Public Water Supply	Townwide	Public	V	Improve monitoring of existing stormwter management systems						L	O/L
Tics/Mosquitos	Townwide	N/A	V	Access and implement additioanl critter crossings							
Plant Diversity	Townwide	Municipal	S	Identify and aquire open parcels connecting Town Owned open space						H	O/L
Openspace/Recreation/Conservation	Townwide	Private/Public	V/S	Upgrade septic system requirements to treat higher levels of pollution							
				Continue to mornitor water quality for private water supplies in critical areas						H	O/S
				Provide education to the public regarding the dangers of standing water							
				Develop a regional deer managemet program						M	L
				Implement tree planting program							
				Encourage public to partake in Energy Savings Tree Program						H	O
				Identify and aquire open parcels connecting Town Owned open space							

Community Resilience Building Risk Matrix

Compiled Matrix

CommunityResilienceBuilding.org

H M L

priority for action over the Short or Long term (and Ongoing)

V = Vulnerability S = Strength

Top Priority Hazards (tornado, floods, wildfire, hurricanes, earthquake, drought, sea level rise, heat wave, etc.)

Features

Location

Ownership

V or S

Inland Flooding

Extreme Winter Weather

Severe Storms

Heat/Drought

Invasive Species

Priority

Time

H M L

Short Long Ongoing

Infrastructural

Appendix G
Draft Certificate of Adoption

Seekonk, Massachusetts

RESOLUTION NO. _

A RESOLUTION OF THE TOWN OF SEEKONK, MA ADOPTING THE MUNICIPAL VULNERABILITY PREPAREDNESS SUMMARY OF FINDINGS AND 2020 DRAFT HAZARD MITIGATION PLAN

WHEREAS the Town of Seekonk, Board of Selectman recognizes the threat that natural hazards pose to people and property within Seekonk; and

WHEREAS the Town of Seekonk has prepared a multi-hazard mitigation plan, hereby known as the Municipal Vulnerability Preparedness Summary of Findings and 2020 Hazard Mitigation Plan in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS the Municipal Vulnerability Preparedness Summary of Findings and 2020 Hazard Mitigation Plan dated _____ identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in Seekonk from the impacts of future hazards and disasters; and

WHEREAS adoption by the Town of Seekonk Board of Selectman demonstrates their commitment to the hazard mitigation and achieving the goals outlined in the Municipal Vulnerability Preparedness Summary of Findings and 2020 Hazard Mitigation Plan dated _____.

NOW THEREFORE, BE IT RESOLVED BY THE SEEKONK, MASSACHUSETTS THAT:

Section 1. In accordance with _____, the Town of Seekonk, Board of Selectman adopts the Municipal Vulnerability Preparedness Summary of Findings and 2020 Hazard Mitigation Plan dated _____.

ADOPTED by a vote of _____ in favor and _____ against, and _____ abstaining, this _____ day of

_____, _____.

By: _____ (print name)

ATTEST:

By: _____ (print name)

APPROVED AS TO FORM:

By: _____ (print name)