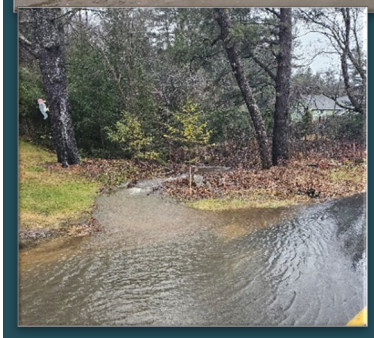
Washington, Massachusetts

Municipal Vulnerability Preparedness (MVP)

Summary of Findings

May 2024



BRPC

Berkshire Regional Planning Commission

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Overview

Introduction

The need for municipalities to increase resilience and adapt to extreme weather events and natural hazards is becoming more evident among Berkshire County, Massachusetts communities. Responding to this need, the Town of Washington pursued funds under the Municipal Vulnerability Preparedness (MVP) program to address vulnerabilities to the growing threat of natural hazards.

The Town of Washington spans 37.8 square miles in the Berkshire Hills of central Berkshire County along the Hampshire County line. The town is bordered by Pittsfield to the northwest, Dalton, Hinsdale and Peru to the north, Middlefield to the east, Becket to the southeast, Lee to the southwest, and Lenox to the west. Washington is characterized by its forested landscape, which constitutes 90% of its land use. Notably, October State Forest dominates on the western side, managed by the State's Department of Conservation and Recreation. This reservation encompasses October Mountain Lake and offers diverse recreational activities, including picnicking, hiking, camping, and 17.6 miles of the Appalachian Trail of the Berkshire Appalachian Corridor. There are also several water bodies, including many recreational lakes and drinking water supply reservoirs for neighboring towns found in central and western Washington. The town's development is concentrated in the eastern half, adjacent to State Route 8, the sole state route traversing Washington from Becket to Hinsdale and the primary route in the town. This eastern side hosts key facilities such as the Town Hall (serving as the town's shelter and council on aging), the Town Park, the Town Garage, and various residential homes. The town accommodates a rail line, the CSX Berkshire Subdivision, operated by CSX and used by Amtrak, which runs parallel to Route 8.

The town has an estimated population of approximately 501 residents, giving a density of 13.2 people per square mile. 194 residents (38% of the total) are older than 65, and 73 (15% of the total) are school-aged children less than 18 years of age. There are an estimated 246 housing units, resulting in a household size of about 2.0 people per household.[1] The predominant land uses in town are forest (92%), water/wetlands (5%), residential (2%), and agricultural (1%).[2] The Town is part of the Central Berkshire Regional School District, where K-5 students attend Becket Washington Elementary. Gades 6-8, and high school students attend Dalton's Nessacus Middle and Wahconah High School.

Project Identification and Selection Process

Washington completed and adopted their Hazard Mitigation Plan in 2019. Although the plan included climate change data, it was completed independently of the Municipal Vulnerability Preparedness (MVP) Process. Therefore, the Town was awarded MVP Planning funds to complete an MVP Plan as an appendix to their Hazard Mitigation Plan.

The Town formed a Municipal Vulnerability Preparedness Committee to steer the process. Members of the Committee include municipal department heads, representatives from town boards and committees from several disciplines, and representatives of key community stakeholders. The Town retained the Berkshire

[1] American Community Survey (ACS) 2021
2 MassGIS Land Cover/Land Use Data (2016)

Regional Planning Commission (BRPC), an MVP Provider, to aid them in developing this appendix. Through workshops, the project team assessed the impact of climate change on community issues, vulnerabilities, and social factors. They explored nature-based solutions, identified opportunities for action, and integrated downscaled climate change projections into the planning process. The objectives of the committee were to 1) Identify top priority hazards caused or exacerbated by climate change, 2) Choose the top three priority actions identified in the Hazard Mitigation Plan, and 3) Transform action into climate adaptation projects aligned with MVP program principles. This document serves as the MVP Plan summarizing the results of this process. Approval of this plan by the Executive Office of Energy and Environmental Affairs (EOEEA) will enable the Town to be eligible for funding to implement the various preparedness measures identified through this plan development process.

The Committee held a series of meetings to review the existing Hazard Mitigation Plan, examine climate change's impacts more closely through localized climate data provided in part by resilientma.org, and discuss areas that will receive the greatest impact. All agreed that increased precipitation, subsequent flooding, and extreme temperate changes were the top climate change impacts. The workshops provided a nuanced exploration of the challenges specific to this geographic region, notably within the Town's centrally developed area.

The Depot Brook area, encompassing streets like Frost Rd, S Washington Rd (Route 8), Cross Place Rd, and Lower Valley Rd in the north and east sections of town, was identified as an area of vulnerability. The Hazard Mitigation Plan highlights frequent and severe flooding as a significant concern. These concerns are identified along the Depot Brook, presenting challenges such as isolating 12 families due to flooding on Cross Place Rd and impacting critical infrastructure like the Department of Public Works and the Town Park. Moreover, issues of scouring, bank erosion, and culvert failure on Cross Place Rd and Lower Valley Rd further amplify the vulnerability of this region. See Figure 1: Town of Washing Floodplain (FEMA 100 year floodplain FIRM data).

The town's elevated terrain and extensive forest cover expose it to the impact of fallen trees during adverse weather events. Rising temperatures contribute to expanding invasive species like the Emerald Ash Borer, Woolly Adelgid, and beech bark disease into previously cooler habitats, weakening various tree species in the area. Additionally, warmer winters result in heavier snow and ice storms, coupled with increased freezing-thaw cycles, further compromising tree stability and accelerating their fall rate. This vulnerability poses immediate challenges, including the obstruction of major road arteries. The town's compact dimensions and limited alternative routes exacerbate these challenges, potentially isolating residents. A notable historical incident involving a tree collapse onto a public service vehicle during a winter storm underscores the urgency of addressing this issue, given its impact on public safety and essential services.

Lastly, The Town of Washington is predominantly home to older residents, some living alone, families with young children, and an area characterized by older housing stock vulnerable to extreme weather events. The Town has grappled with prolonged utility loss in recent years, sometimes lasting upwards of ten days due to winter storms, high winds, and ice events. In response to these climatic challenges and recognizing the heightened vulnerabilities, the Town strategically identified the Town Hall as a climate resiliency hub. The Town Hall is Washington's most stable site, with minimal natural hazard disruption and stable internet connectivity. As such, the Town Hall became the primary choice for providing essential assistance during extreme weather conditions.

In addition to these three projects, the group agreed that an action to address greater communication and community building was direly needed, especially in times of emergency. Thus, communication and community building were integrated into the three discussed projects.

Two, 2-hour workshops were held on November 15th and December 20th, which included the Core Committee members as well as additional stakeholders from the Council on Aging and the Board of Health. A full list of workshop attendees can be found in Table 1. During these workshops, presentations elaborated on the impacts of climate change to the Town, assessed community needs, as well as background information on the historical importance, uses and current issues of these areas.

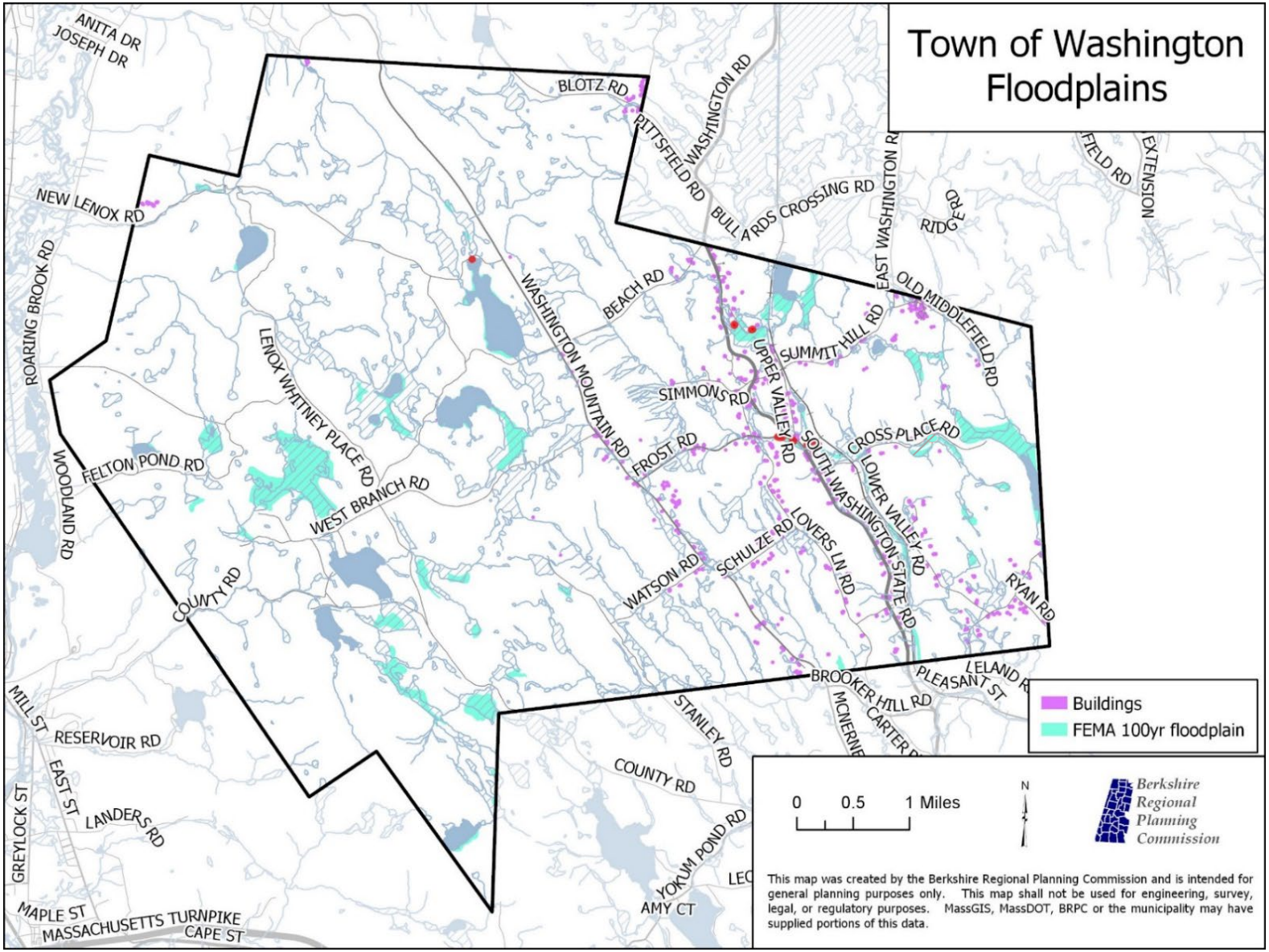
The committee gathered public feedback through a public survey and open listening session. The survey was made available at the town hall, and an online copy was posted on the town website and in the online newsletter. The public listening session was announced through the monthly newsletter, the town website, and the town calendar events page. A link to the survey and the date for the public listening session was mailed to each household in Washington, and announcements were made during Council on Aging events, and various town board meetings. A draft copy of this Summary of Findings was made available on the Town website prior to the Listening Session. Examples of outreach can be found in Appendix A.

The Survey received 19 responses with feedback and questions from community members. Appendix B includes a summary of the survey results. 32 people attended the listening session, including the five core team members. Presentations included an introduction to climate change impacts at the local level and a presentation on each of the projects by Core Team members. A sign-in sheet and feedback were recorded in notes found in Appendix B.

Table 1: List of Workshop Attendees

Name	Affiliation
Facilitators	
Courteny Morehouse	Berkshire Regional Planning Commission – Project Coordinator
Britney Danials	Berkshire Regional Planning Commission
MVP Core Team	
Sean Curran	Washington Town Administrator
Kent Lew	Washington Select Board Member
David Ellis	Washington Select Board Member
Rika Alper	Washington Conservation Commission
Tom Johnson	Washington Dept of Public Works
Workshop Attendees	
Steve Deloye	Council on Aging, former Emergency Manager and Fire Academy Instructor
Ellen Bond	Board of Health, Nurse

Figure 1: Town of Washing Floodplain (FEMA 100 year floodplain FIRM data)



Findings

Extreme Precipitation Events, Rising Temperatures, and Increased Storm Frequency

The MVP Committee identified extreme precipitation events as Washington's top hazard. Extreme precipitation events encompass flooding concerns, increased sedimentation, and the degradation of local roadways due to undersized culverts. Climate data reveals that the Northeast region of the US experienced a significant increase in heavy precipitation events (defined as the heaviest 1% of all daily events), with a rise of more than 55%.[3] This increase was greater than in any other region in the country. The region's average annual precipitation has increased by 10% in the last fifty years. Massachusetts state projections indicate that the total annual precipitation could increase by 2% to 13%, with an additional six inches annually by 2050 and up to seven inches by 2090.

Figure 2: Precipitation Projection 2030-2090 for Washington, MA

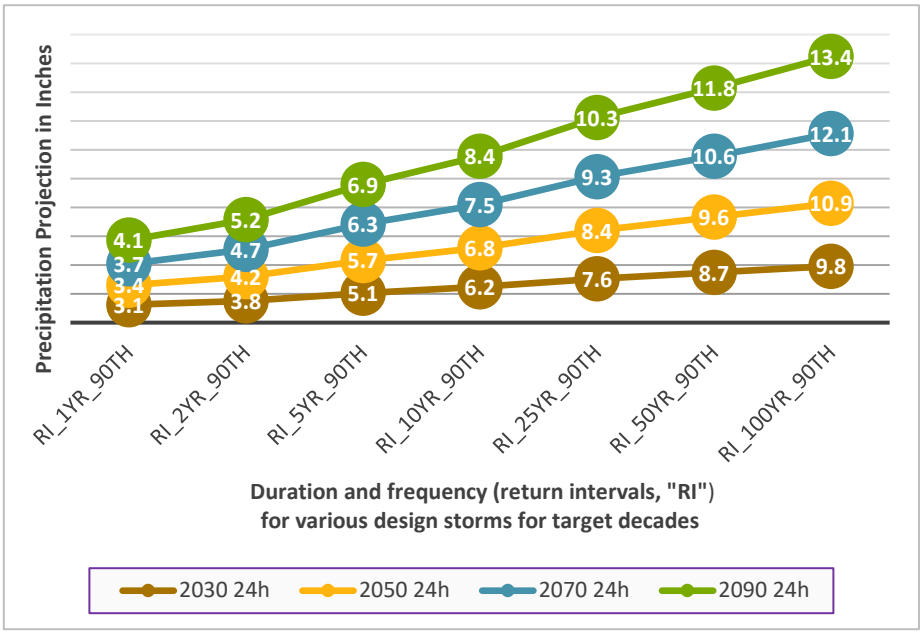


Figure 2 presents Intensity-Duration-Frequency (IDF) precipitation estimates from the Massachusetts Climate and Hydrologic Risk Project, led by the Executive Office of Energy and Environmental Affairs (EEA) in collaboration with Cornell University, U.S. Geological Survey, and Tufts University.[4] Focusing on local climate trends, the data reveals a significant precipitation increase by 2090 in Washington, particularly where Depot Brook intersects the town's developed areas. The figure illustrates duration and frequency trends for precipitation from 2030 to 2090 at the 90th percentile, indicating a consistent growth in precipitation levels as the return interval increases (Year 1 to Year 100). This upward trend suggests a rise in precipitation for extreme weather events with higher return intervals over time. The town is situated in both the Housatonic Watershed and the Westfield Watershed. See Figure 1 of the 100-year floodplain map showing flooding areas of concern and buildings at risk.

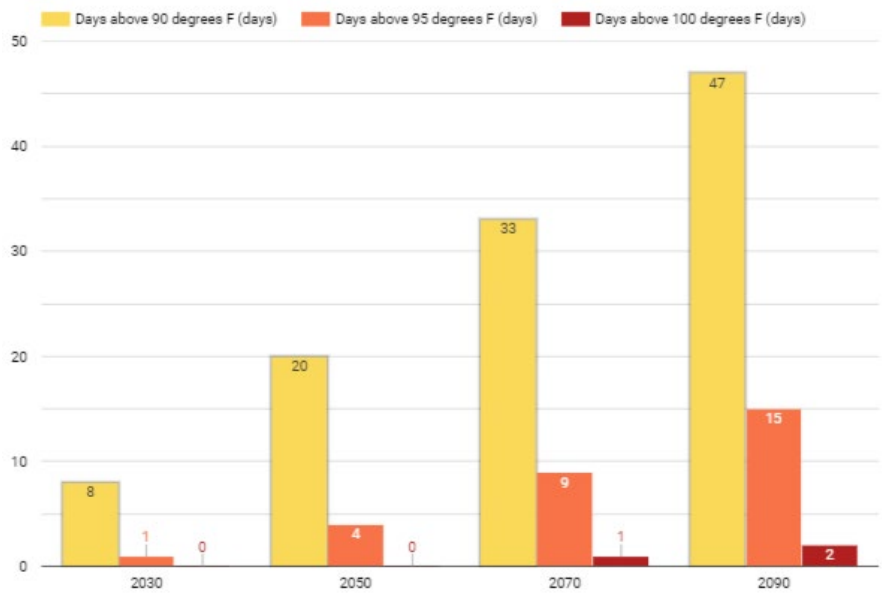
Extreme precipitation is contingent on temperature increases and atmospheric capacity to hold water. In the context of climate change, it encompasses various forms of intense weather patterns, including heavy snowfall and ice storms during winter. As temperatures rise, the atmosphere's capacity to hold water

3 Pubs.GISS: Easterling et al. 2017: Precipitation change in the United States (nasa.gov).
4 https://resilientma-mapcenter-mass-eoeea.hub.arcgis.com/

increases. This phenomenon not only intensifies rain events but also influences winter weather. The MA Climate Assessment indicates that climate change contributes to more severe winter storms, characterized by colder temperatures, even if the overall winter season shortens. This shift leads to increased occurrences of severe winter weather, such as ice storms, nor'easters, heavy snow, blowing snow, and other extreme forms of winter precipitation.

The implications of these changes extend beyond the inconvenience of harsh winter conditions. Severe winter storms pose risks to rural populations, particularly in terms of service and access issues. Heavy snow conditions can block roads, leading to transportation challenges, often resulting in downed power and communication lines, affecting essential services. Additionally, snow and ice melt can worsen the impact of heavy precipitation when temperatures rise suddenly. This fluctuation may result in flooding, dam failure, and heightened landslide risks due to destabilized slopes. Moreover, the specific challenges posed by snow and ice melt on gravel roads include increased runoff that saturates and softens the gravel, causing erosion, rutting, and potential washouts. These issues not only affect road stability but also present challenges for accessibility and transportation.

Figure 3: Annual Projection of Extreme Heat Days by Decade



Source: Climate Adaptation Clearinghouse for the Commonwealth. Data based on Representative Concentration Pathway [RCP] 8.5, a comparatively high greenhouse gas emissions scenario.

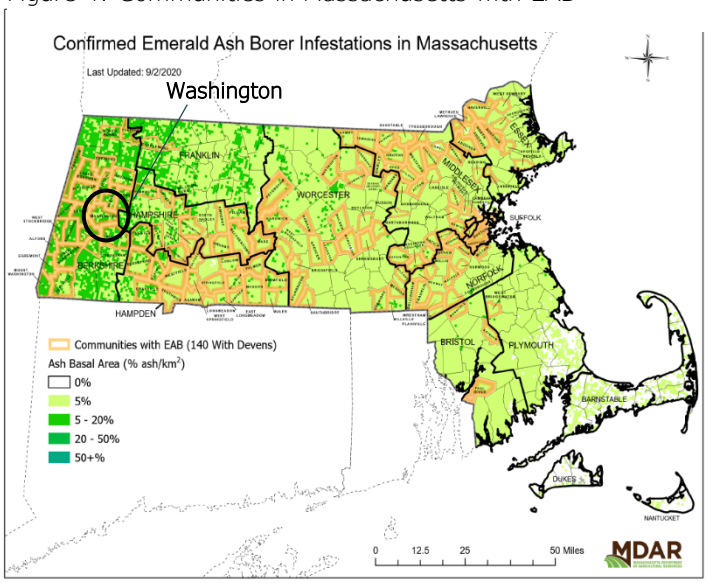
The rising temperatures associated with climate change also contribute to hotter summers, intensifying heatwaves throughout the region, see Figure 3. The Ma Climate Change Assessment predicts that temperatures are almost certain to rise across the Commonwealth. Humidity will rise as well, causing hot days to feel even hotter. Hotter summers pose significant challenges, particularly for residents residing in older housing stock that may lack proper insulation and ventilation. Extreme temperature is the leading cause of weather-related mortality in the U.S.[5] Age and chronic health conditions can also increase susceptibility to heat-related illnesses.[6] The combination of aging infrastructure and more extreme heat events underscores the pressing need for accessible cooling centers or alternative shelter options during peak summer temperatures.

Beyond the heat-related concerns, the shifting climate brings increased storm frequency, heightening the risk of fallen trees. The increased frequency of storms, coupled with invasive species weakening trees, heightens the risk of tree falls, posing additional concerns for the town's landscape and infrastructure. These events pose a dual challenge—jeopardizing community safety and frequently causing power outages. Thus, the pressing need for alternative shelter options becomes crucial, addressing both heat-related challenges and those arising from storms (summer and winter) and falling trees.

[5] National Weather Service, (2022). *Weather-Related Fatality and Injury Statistics*
6 Centers for Disease Control and Prevention, (2017). *Heat and People with Chronic Medical Conditions*

The town's elevated terrain and dense forest cover exacerbate the consequences of such incidents during severe weather events, impacting public safety and essential services. Washington, characterized by its rural setting, grapples with the impact of invasive species on its extensive forested landscape which include beech bark disease, black knot and sugar maple borer. However, the prevalence of the Emerald ash borer (EAB) targeting ash trees (Fraxinus spp.) poses the most significant threat. To date, this invasive beetle is responsible for the loss of tens of millions of ash trees across 30 states. According to the Department of Conservation and Recreation (DCR), 217 Massachusetts counties have detected EAB (see Figure 4).[7] Entomologists express concern over the potential alteration of forest ecology, especially since Berkshire County holds 64% of the state's forest, of which 12% is ash laden.[8] The enduring and devastating repercussions of invasive species can induce irreversible shifts in ecosystem functionality and compromise the broader landscape's resilience to climate change.[9]

Figure 4: Communities in Massachusetts with EAB



Source: The Massachusetts Introduced Pests Outreach Project

The Massachusetts State Hazard Mitigation Plan categorizes invasive species as an environmental hazard with multifaceted implications, affecting the diversity of native flora and fauna, deteriorating water quality, disrupting wildlife habitat, and potentially leading to the local and complete extinction of rare and endangered species. Invasive species further impede climate change mitigation efforts, notably diminishing forest carbon sequestration rates.[10] The threat from EAB is exacerbated by climate change, with warming temperatures facilitating the spread of invasive species.

[7] Department of Conservation and Recreation | Emerald Ash Borer Guide
[8] Massachusetts Forest Alliance
[9] Department of Interior: Invasive Species Advisory Committee Climate Change Report 2022.
[10] 2023 Massachusetts State Hazard Migitgation and Climare Adapative Plan 2023 https://www.mass.gov/doc/resilientmass-plan-2023/download

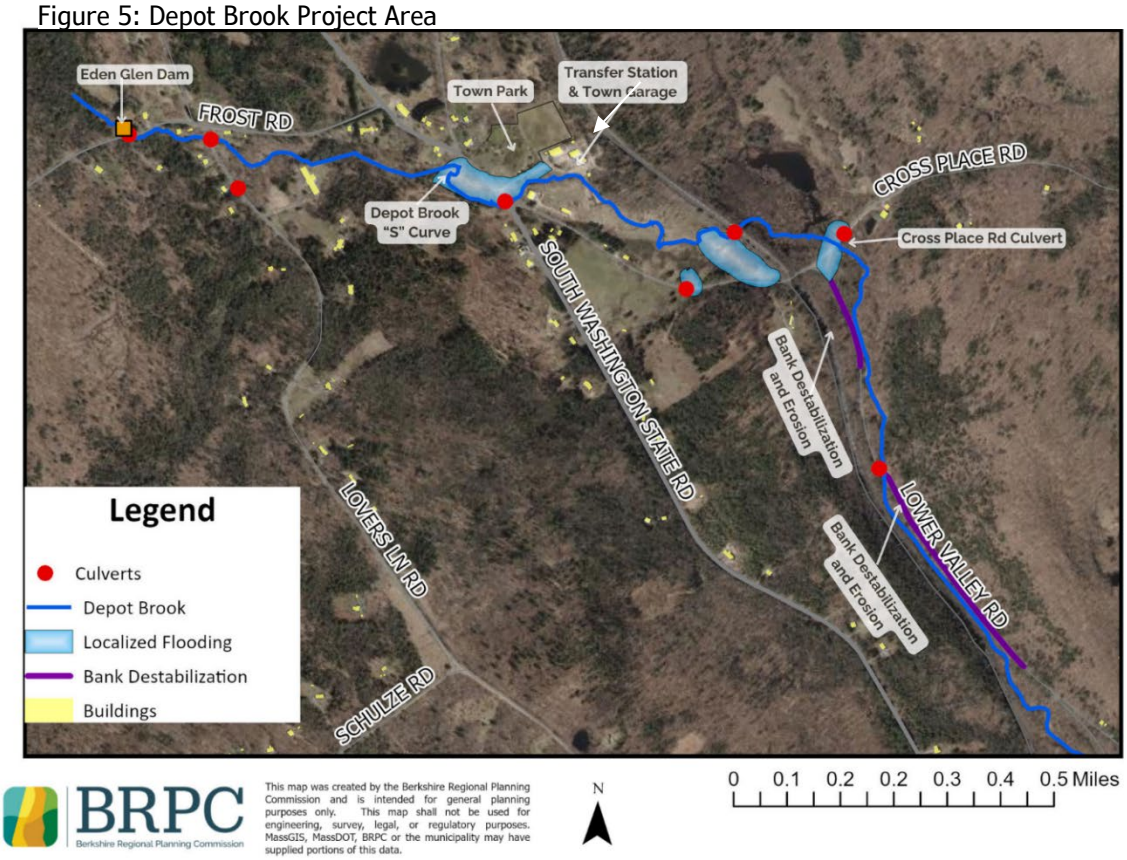


Depot Brook Project

Background

The eastern section of Washington stands as the focal point of the town's development. S. Washington State Rd (State Route 8), a vital thoroughfare, serves as the primary conduit connecting residents to essential facilities such as the Town Hall, Town Park, Town Garage, and Transfer Station. As the main north-south route, Route 8 also plays a pivotal role in local transportation and increasing access to essential services not available within the Town. Depot Brook, a tributary of the west branch of the Westfield River (designated as a federal-classified Wild and Scenic River), originates the town from the northwest. Meandering through the landscape, the brook intersects key town roads, including Frost Rd., S. Washington State Rd, and Cross Place Rd. Eventually turning south, it parallels Lower Valley Rd, making two crossings towards the southern end of the town, see Figure 5: Depot Brook Project Area

Figure 5: Depot Brook Project Area



Frost Road is the sole east-west route in the Town, linking S. Washington State Rd (State Route 8). It serves as a paved connection for east-west traffic south of Hinsdale, specifically facilitating home heating oil deliveries, buses, and triaxle gravel pit trucks. The proximity of these roads to the brook intensifies the risks of flooding, stemming from recurrent heavy precipitation and storm events, compounded by the presence of aging and undersized stormwater infrastructure. Within the Depot Brook water system, vulnerabilities exist at critical points, including the culverts on Simmons Rd and Cross Place Rd, as well as the dam at Eden Glen on Frost Rd. These vulnerabilities amplify the potential for flooding and damage during rainstorms. Recognizing the severity of these issues, the 2019 Hazard Mitigation Plan designates this area as a major concern, citing the isolation of families, damage to critical infrastructure, and broader impacts on the Town's operational integrity.

A particularly problematic spot is the Depot Brook near S. Washington Rd and the Town Park locally known as “S Curve”. Here, the accumulation of sediment and road gravel from upstream, near Frost Rd culvert coupled with geomorphological vulnerabilities, increases the frequency of flooding during high rain events. Town officials note a widening of the Brook’s bank further threatening the Lower Valley Rd. Consequently, this issue results in disruptions to Route 8, damage to the Town Park, and erosion of access routes to the Transfer Station and the Town Garage. Historically, Town officials documented that this section would flood once per decade. However, since the summer of 2021, it has experienced flooding five times.

Hurricane Sandy left a lasting impact, causing significant flooding and infrastructure damage. On Frost Road, a deep washout of about 16' occurred, with upheaved and hanging guardrails. The hole on Frost Rd measured about 40' by 15' and was 16' deep. In response, the Town received a $778,350 FEMA grant to replace the Frost Rd bridge with an open bottom culvert Subsequently, Cross Place Rd suffered washouts, prompting DPW to add 5 tri-axle loads of 6" talon and 4 loads of gravel to reopen the road.

Further downstream, near the convergence of Lower Valley Rd and Cross Place Rd, contends with persistent issues of flooding, road washout, and bank destabilization. In the early 2000s, Lower Valley Rd experienced flooding, inundating the abutting cattle pasture and halting operations. High waters from Depot Brook lead to persistent road edge erosion on Lower Valley Rd, necessitating repair and repaving. Town staff injuries during road repairs in 2019 and 2023 have imposed financial burdens on the town, including staff injuries, emergency response, equipment replacement, and over $100,000 in insurance claims. The culvert on Cross Place Rd has significant washouts and scouring, requiring extensive repairs during major storms. In July 2021, a sudden microburst caused flash flooding throughout the region. Twelve families were stranded on Cross Place Rd, necessitating $5,000 in road repairs. DPW reported thirty-two loads of gravel were needed to repair all roads. With each heavy rain, town staff continue to monitor and respond to recurring road erosion and blacktop breakage throughout Lower Valley Rd and Cross Place Rd.

As Depot Brook courses through the community, flooding events pose a dual challenge. Beyond the immediate societal and infrastructure impact, these events influence the Westfield River downstream, a designated National Wild and Scenic River. Excess water, sediment, and debris alter river dynamics, contributing to overbank flooding, erosion, and disturbances to aquatic habitats. The downstream Westfield River, known for its pristine water quality and diverse life, becomes vulnerable to upstream disturbances. Increased flooding frequency may impact water quality, introducing pollutants and posing challenges for downstream communities relying on the Westfield River for drinking water. Effective flood mitigation is crucial for the community and preserving the ecological vitality of the entire river system.

Proposed Solution

The goals of the Depot Brook Project are to implement comprehensive and strategic solutions for flood mitigation, addressing immediate concerns while establishing a resilient foundation for the future. The proposed interventions take a multi-faceted approach, starting with an analysis of the aging Eden Glen Dam - a non-jurisdictional dam with the last inspection report in November 1987. Understanding its current condition is crucial for managing upstream flood issues. This inspection will also explore potential future uses, as residents have expressed interest in developing the dam into an outdoor recreational area. A comprehensive downstream analysis from Eden Glen Dam to Route 8 aims to identify potential vulnerabilities, assess stream bank health and erosion risk, and propose strategic measures for increasing flood capacity.

One specific focus area for intervention is the Depot Brook "S" curve. The goal is to minimize channel widening and reduce immediate downstream flooding near Route 8, the Town Park, and Town Garage. Excessive sediment and gravel buildup in this region will be addressed through nature-based solutions, emphasizing floodplain restoration, bank stabilization, and green infrastructure. These interventions aim to reduce sediment buildup, mitigate flood risks, and contribute to improved watershed management.

Further downstream, the culvert on Cross Place Rd, a critical structure prone to severe damage during extreme weather events, will be evaluated for upsizing with improved functionality. This replacement will reinforce the infrastructure's resilience as precipitation patterns intensify, thereby reducing instances of road washouts and closures that could isolate families.

Lastly, bank stabilization techniques using nature-based solutions will be implemented along Lower Valley Road, addressing the rapidly occurring road edge erosion and washout. These measures will mitigate future flood risks during storm events, ensuring the road's integrity and enhancing overall resilience. Specific mitigation solutions are further expanded in the section titled *Nature-Based Solutions and Environmental Co-Benefits.*

The Depot Brook Project aims to keep the community informed and engaged, employing a transparent and community-focused approach to address the challenges of dynamic weather patterns and flood vulnerabilities.

Timeline, Scope, and Budget

The Depot Brook Project envisions a strategic and phased approach to mitigate flooding challenges and enhance resilience. The project spans three distinct phases.

Phase I: Project Design
With secured funding, the project will engage a team of experts, including a fluvial geomorphologist tasked with conducting a detailed downstream analysis from Eden Glen Dam to Route 8 and overseeing a sediment transportation study within the Depot Brook water system. Concurrently, a multidisciplinary engineer specializing in dam safety and culvert functionality will lead the structural assessments of the aging Eden Glen Dam and the culvert on Cross Place Rd.

Collaboration with essential stakeholders such as the Westfield Wild and Scenic Committee, CSX railroad, National Resource Conservation Services, MassDEP, private landowners, and the Conservation Commission will be a priority. The project also emphasizes active resident and community engagement through outreach activities designed to gather valuable input and insights.

Timeline: 12 months
Budget: $170,000

Phase II: Final Designs and Permitting
Building on the insights gained in Phase I, Phase II focuses on developing final designs and obtaining permits for comprehensive flood mitigation. Detailed designs, including the replacement of the Cross Place Rd culvert and nature-based solutions for bank stabilization on Lower Valley Rd, will be finalized. Insights from the fluvial geomorphologist's analysis and sediment transportation study will also secure any necessary permits for stream restoration. Collaboration with MassDEP and local agencies continues to secure necessary approvals. Throughout Phase II, targeted outreach gathers input on final designs, ensuring alignment with resident preferences. Specific activities are listed in the section title *Public Involvement and Community Engagement.*

Timeline: 12 months
Budget: $375,000

Phase III: Implementation & Construction
This phase marks the transition from planning to execution, focusing on translating the designed flood mitigation strategies into construction initiatives. The primary objectives include the replacement of the Cross Place Rd culvert and implementing nature-based solutions for bank stabilization. This phase will also incorporate stream restoration based on downstream analysis and sediment study. However, additional elements could be included depending on the design plans created and feedback from the community during Phase I & II.

Timeline: 5 – 8 years
Budget: $3 Million

Nature-Based Solutions and Environmental Co-Benefits

Native climate adaptive plantings will be strategically employed for diverse nature-based solutions, encompassing bank stabilization, riparian buffers, and restoring natural features along watercourses. These plantings will be crucial in implementing effective flood mitigation techniques, including reducing bank erosion, enhancing water quality, and fostering overall ecological resilience by supporting pollinator and wildlife habitats. Green infrastructure will be integrated into the Town properties, such as the Town Park and near the Transfer station, providing natural stormwater management systems, promoting infiltration and reducing runoff. While this project focuses on culvert replacement, traditional gray infrastructure, proper sizing, and improved environmental design considerations will facilitate enhanced fish and wildlife passage, promoting overall stream connectivity. Stream banks on both ends of the culvert will be strengthened using living shoreline techniques.

Environmental Justice and Public/Regional Benefits

While the Town of Washington does not have a formally mapped Environmental Justice (EJ) community, maintaining safe travel routes throughout Town would immensely benefit seniors and children in the area. Many in the community rely heavily on Route 8 for intertown travel, especially towards Pittsfield, as the Town's rural nature makes access to essential resources challenging. Maintaining roads for emergency service vehicles is paramount given the area's previous history of isolation during storm events.

Flooding in areas near the transfer station and Town park compounds challenges for the entire community, as these facilities play crucial roles in serving residents. Addressing flood mitigation in these areas aligns with the broader goals of enhancing regional resilience and ensuring equitable access to vital resources.

Public Involvement and Community Engagement

The Depot Brook Project strongly emphasizes public engagement throughout its various phases. The collaborative nature of the project extends to partnerships with youth groups, including the area's Girl Scouts, to facilitate streamside planting initiatives. Coordination with the Westfield Wild and Scenic Committee for these plantings will ensure a shared commitment to environmental stewardship and enhance the community's connection to the natural surroundings.

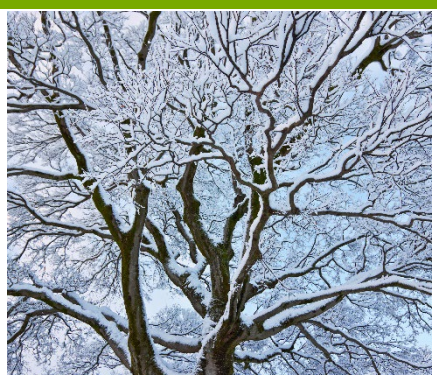
Residents will be actively engaged in each phase of the project, fostering transparency and inclusivity. This engagement is not only crucial for aligning the project with community needs but also for gathering valuable feedback to refine and enhance the proposed flood mitigation strategies. Special attention will be given to residents along Cross Place Rd, acknowledging the unique challenges they face due to the critical infrastructure in their vicinity.

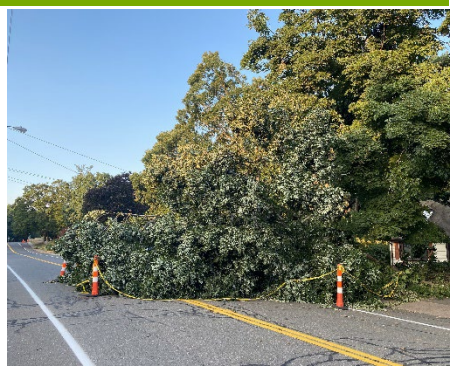
As part of our community engagement efforts, the committee will organize a Brook Walk along Depot Brook, spanning from the Eden Glen Dam to the "S" Curve. This walk aims to bring attention to flooding concerns and will serve as an opportunity for a Q&A session about the Depot Brook Project. Additionally, this event will provide a platform to engage the community in discussions about the restoration or removal of the Eden Glen Dam, topics that have elicited mixed feelings in the past. Community engagement sessions will be conducted to ensure that the transformation aligns with the desires and needs of the residents. To enrich the conversation, we will host a Fluvial Geomorphologist to discuss the role of dams in hydrology and river dynamics. Representatives from the Westfield River will share their methods for controlling waterborne invasive species, such as Japanese knotweed. We are also partnering with conservation organizations like The Nature Conservancy to offer valuable insights. Following the Brook Walk, there will be a post-event gathering at the Town Park, featuring an after-party with food and informational tables. This holistic approach aims to inform, engage, and involve the community in shaping the future of the Depot Brook Project.

	Print	Digital	In Person
Principal Strategy	- Town newsletter - Direct mailings via postcard or letters	- Town website	- Direct engagement at strategic locations (e.g., transfer station, Town hall meetings) - Collaborative events such as streamside planting with Westfield Wild and Scenic Committee and youth groups - Community Nursery that has residents fostering plants for bank restoration with personalized dedication plaques. - Brook walk from Eden Glen Dam to the "S" Curve with an after party at Town Park - Tabling and Outreach at June Family Fun Day
Assisting Strategy	- Sandwich board displays at key locations	- Social media platforms, email updates	- Informational sessions and presentations
Equitable Engagement Modifiers	- Multilingual materials	- Accessible online content	- Tailored outreach to priority populations that include mailed letters with large print or personal invites. - Ensuring accessibility for all residents, including those with disabilities - Providing food at meetings for inclusivity - Selecting diverse and accessible locations for meetings - Varied meeting times to accommodate different schedules - Childcare for working parents
How Community Feedback Will Be Incorporated into Project and Mechanism for Sharing Results	- Collection of feedback through Town meetings and distributed surveys - Regular review and analysis of received feedback	- Integration of online comments and suggestions	- Structured engagement sessions where residents can provide immediate feedback, voice concerns, and ask questions on-site. Project representatives will document this input for review. Themes, concerns, and suggestions will be compiled for project adjustments. A thorough report summarizing community feedback and detailing project adjustments will be generated. This report will be shared through various channels, including town newsletters and informational displays, with copies available at town meetings.

Project Transferability, Measurement of Success, and Maintenance

The project's success will be measured by the effective implementation of nature-based solutions, reduced flood incidents, and improved community resilience. Public involvement will be a key indicator of success. The knowledge gained will be transferrable to similar projects, ensuring long-term success and sustainability. Regular maintenance plans will be established to preserve the effectiveness of implemented solutions and address evolving challenges.





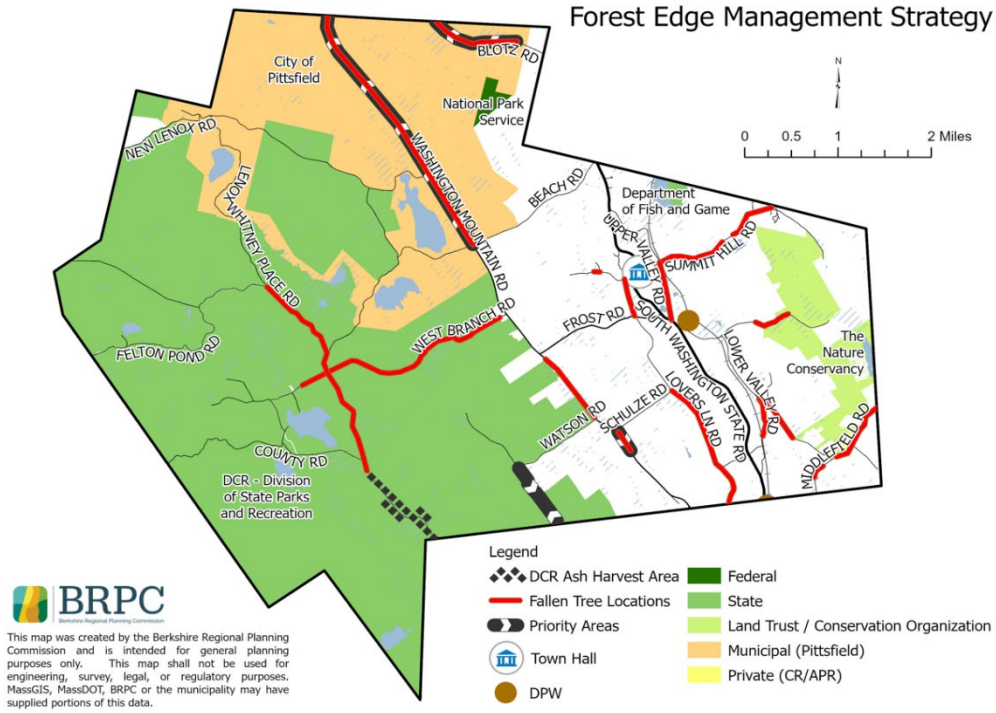
Forest Edge Management Project

Background

The changing climate brings increased risks of extreme weather events, including droughts, severe storms, and flooding. Rising temperatures foster the proliferation of invasive species, encompassing pests like the Emerald Ash Borer (EAB), fungal threats like beech bark disease, and problematic flora such as Norway maple, Japanese barberry, and garlic mustard. These climate factors and invasive species weaken trees, compromise their vitality, and contribute to increased tree mortality. As a result, the elevated mortality rate among trees heightens the threat of fallen trees, particularly along roadways.

The Town currently allocates $30,000 annually for tree removal, 50% of which is specifically for Ash trees. Each year, the town can remove upwards of 30 trees; however, the number continues to increase. This challenge is amplified along critical roadways, such as Blotz Road (priority area) where 50 trees have been removed. Emergency calls related to fallen trees dominate the Town's incidents, and in one occurrence, a tree fell on a DPW vehicle, trapping Town staff during a winter storm. Public safety is jeopardized

Figure 6: Locations of high occurrence rate of fallen trees



by these weakened and dead trees posing a risk of falling and blocking roadways, damaging vehicles, endangering lives and power lines, and isolating residents and emergency services. These concerns surpass the Town's and property owners' capacity to address them without additional support. Figure 6 displays locations with a high occurrence of fallen trees along roadsides, pinpointing high-priority zones. These high-priority areas are particularly vulnerable due to the absence of utility infrastructure, resulting in limited monitoring and response capabilities for fallen trees. Collectively, these priority and delineated areas cover a total of 32 road miles.

In this rural town, few alternative routes means that a blocked road by a fallen tree can result in up to an hour's delay for emergency services to reach homes, potentially risking lives. In the 2008 winter storm, Route 8 was blocked, causing town-wide power outages and cutting off emergency services from nearby communities. With no local emergency services, the town depends on bordering towns, making accessibility crucial in emergencies. This underscores the town's vulnerability as it lacks alternative routes, emphasizing the urgency of addressing the tree-related challenges for public safety.

Proposed Solution

Inspired by the success of DCR's 2018 pilot silviculture prescription in October Mountain State Forest (specifically along County Road in Washington), the MVP Committee is set to adopt a comparable approach. This state pilot project covered 1.56 miles and 73 acres, salvaging white ash trees infested or imminently affected by the Emerald Ash Borer (EAB) within 200 feet of the road. The proactive strategy ensures public safety, generates cost savings by eliminating hazards, recovering valuable resources like lumber, firewood, and pulp, and prevents associated financial and safety liabilities. Building upon this success, the MVP Committee proposes a similar initiative to manage the forest edge along town roadsides.

During the MVP workshop, committee members identified streets with recurring fallen trees and emergency removal, noted public safety concerns related to fallen trees, and highlighted essential commuter arteries. Particularly notable were areas along roadside edges that lacked utility poles, rendering them without the collaboration of utility companies to assist with tree maintenance. This assessment led to the conceptualization of "The Forest Edge Management Strategy," a project to address the heightened risk of fallen trees, particularly those afflicted by EAB. The primary objective is to proactively manage the forest edge along Town roadside areas, emphasizing public health, safeguarding infrastructure, and contributing to the overall health of a climate-resilient forest ecosystem.

Within the project's scope, a strategic plan involves conducting an Inventory and Invasive Species Spread Study to examine the extent and spread of invasive species, providing valuable insights for informed decision-making and guiding future forest management strategies. This study sets the foundation for developing an Invasive Species Management Plan, strategically targeting, and mitigating the threat posed by EAB. Following this, the project aims to identify areas suitable for resilient planting, fortifying the ecosystem against invasive species and climate-related challenges. In areas where dead trees are removed, the committee proposes planting climate-resilient shrubs and bushes that would protect soil and ground water and minimize tree spread close to the road edge. This measure aims to prevent the takeover of other invasives, fostering a healthier and more resilient roadside ecosystem. In areas where dead trees are removed, the committee proposes intentionally repurposing the ash trees for upcycling, such as art installation, construction materials, and furniture, emphasizing sustainable practices. Simultaneously, a Disease Control Plan will be implemented to address the prevalence of diseases

affecting tree species, reducing the risk of falling trees and promoting overall forest health. Lastly, the project proposes a Tree Nursery Pilot Project on municipal property, coupled with pollinator gardens, as a proactive measure to nurture and propagate tree species, ensuring a sustainable source for future plantings and supporting local pollinator populations.

Timeline, Scope, and Budget

The Forest Edge Management Strategy envisions a strategic and phased approach to increase forest resiliency and protect public health. The project spans three distinct phases.

Phase I: Project Design
Professionals, including forest managers and arborists, will conduct comprehensive field surveys to identify dead or dying trees. Engaging local forestry experts ensures accurate assessments and a detailed inventory will be created, documenting tree species, size, and health. The risk prioritization will categorize trees based on proximity to roads and utilities, structural integrity, and vulnerability to environmental elements. Prioritized trees will be classified into risk levels. Additionally, an ecological assessment will be carried out to evaluate the impact of tree removal on biodiversity and ecosystem health. Collaboration with ecologists will inform the selection of native and climate-resilient tree species for the project. In tandem with the Inventory and Invasive Species Spread Study, professionals will collaborate with the Town to identify suitable locations for the Tree Planting Pilot Project based on ecological considerations. Landscape architects and arborists will develop detailed project designs for the roadside project area and the Tree Planting Pilot Project, considering the practical aspects of tree removal and resilient planting. Regulatory compliance specialists and environmental permitting experts will navigate the permitting process, ensuring compliance with relevant regulations, including wetland and forest-cutting permits.

Timeline: 2 years to 2.5 years
Budget: $275,000

Phase II: Implementation & Construction

Arborists and Forest Managers will lead tree removal efforts, prioritizing high-risk trees. Landscape Architects and Arborists will oversee the planting of resilient species, promoting a diverse and sustainable forest. Arborists and Plant Pathologists will implement disease control initiatives. As part of the broader implementation, skilled Arborists and horticulturists, and community volunteers will execute the Tree Planting Pilot Project, and the pollinator garden.

Timeline: 9- 14 months
Budget: $400,000

Nature-Based Solutions and Environmental Co-Benefits

The Forest Edge Management Strategy addresses immediate concerns related to fallen trees and public safety but also aligns with the broader concept of nature-based solutions, emphasizing the inherent capacity of natural ecosystems to contribute to resilience and sustainability. This strategic approach

encompasses a range of interconnected actions that leverage the ecological functions of the forest to achieve multiple benefits.

Biodiversity Enhancement: By implementing an Invasive Species Management Plan, the project aims to restore and enhance biodiversity within the forested areas. Limiting invasive species dispersion, particularly the Emerald ash borer, promotes the resurgence of native flora and fauna, contributing to a more resilient and balanced ecosystem. Pollinator gardens contribute to the well-being of local insect populations, essential for the pollination of plants and the overall health of the ecosystem.

Climate Change Mitigation: Resilient planting initiatives play a pivotal role in the forest's ability to sequester carbon and mitigate the impacts of climate change. The selection of climate-adaptive species enhances the forest's capacity to act as a carbon sink, aiding in the global effort to reduce greenhouse gas emissions.

Water Quality Improvement: Nature-based solutions inherently contribute to improving water quality. The strategic management of invasive species and resilient planting helps maintain healthy soil structures, preventing erosion and enhancing water filtration. This, in turn, positively impacts local water bodies and supports aquatic ecosystems.

Community Well-being: Establishing a Tree Nursery Pilot Project not only serves as a source for future plantings but also fosters community engagement. Residents can actively participate in tree-planting initiatives, promoting a sense of ownership and connection to the natural environment.

Sustainable Resource Utilization: The salvage and utilization of ash trees affected by the Emerald ash borer exemplifies a sustainable approach to resource management. Recovering valuable lumber from salvaged trees reduces waste and economically benefits the community.

Environmental Justice and Public/Regional Benefits

Washington's rural setting and limited route options pose challenges, especially during adverse weather events. The project addresses environmental justice concerns tied to rural isolation, recognizing residents, particularly those with fewer resources, may struggle to access essential services. With a notable portion of residents aged 65 and older, the project seeks to enhance public safety during extreme weather, directly benefiting this vulnerable population. Acknowledging economic disparities, where 39% of households fall below the state's median income, the project seeks to alleviate challenges economically disadvantaged residents face during disasters.[11] By bolstering resilience and accessibility, it aims to reduce the disproportionate impact of environmental hazards on vulnerable households.

Additionally, the project plans to collaborate with educational institutions and nonprofits: Smith Vocational High School Horticulture and Forestry Program, Westfield State University, and the Westfield Wild and Scenic. These partnerships involve students in vocational training related to horticulture and forestry, contributing to a more environmentally aware and skilled future workforce. Simultaneously, this aligns the

[11] 2022 ACS 5-Year Estimates Table S1901. It is important to note that the total estimated households mentioned in the text are derived from the ACS estimates and specifically refer to the 228 households included in the survey ACS data may have inherent limitations and might not perfectly represent the entire population.

project with broader regional environmental goals, fostering resilience and interconnectivity to address the critical environmental hazard of invasive species.

Public Involvement and Community Engagement

This project prioritizes community engagement as a cornerstone for project success and enhanced resilience. By incorporating three distinct planting-related initiatives – the tree planting pilot project, native plantings, and the creation of a pollinator garden – the project aims to strengthen its ties with the community, recognizing the intrinsic link between active community involvement and the long-term success of forest management. Additionally, residents are encouraged to actively participate in the project's sustainability efforts by taking trees designated for removal for repurposing into furniture, lumbar, construction materials and other practices that minimizes the spread of EAB.

The tree planting pilot project not only contributes to the environmental goals but also provides residents with an opportunity to actively participate in shaping the landscape of their Town. This hands-on engagement fosters a sense of ownership and responsibility, establishing a community-driven approach to forest management. Native plantings and removing the trees further involve residents in the restoration of their local ecosystem. By inviting residents to partake in the planting process, the project cultivates a shared commitment to environmental resilience. Creating a pollinator garden introduces a vibrant and educational aspect to community engagement. Beyond its ecological benefits, the garden becomes a communal space for residents to connect, learn, and appreciate the importance of pollinators in maintaining a healthy ecosystem.

Moreover, the project actively collaborates with youth with educational institutions such as Smith Vocational High School Horticulture and Forestry Program, elementary school, and youth organizations like the Girl Scouts. By involving students in vocational training related to horticulture and forestry, the project contributes to developing a more environmentally aware and skilled future workforce. Students and Girl Scouts will play an integral role in the pollinator garden, fostering a sense of environmental stewardship from an early age. The project envisions turning ash trees and the unique ash borer track patterns into an art installation, involving students in the process and raising awareness about protecting forests from invasive species. Additionally, this art installation could be placed as sign posts along hiking trails to educate hikers about the spread of the EAB.

As part of community engagement, the MVP Committee will leverage the town's annual fun day in June, featuring a "Touch a Truck" event showcasing emergency vehicles. During this event, the committee will set up a table to interact with residents, gather valuable input on the project, and educate the community about the critical impact of downed trees on emergency services. This hands-on approach aims to enhance awareness and foster a sense of community involvement in addressing tree-related challenges for public safety.

The project envisions a collaborative learning experience, bridging the gap between professional forest management and elementary school education. This collaboration involves organizing engaging field trips or interactive sessions where young students can directly witness and learn about sustainable forest management practices. By connecting with either a hired forest manager for the project or experts from the DCR, the initiative aims to create a unique and enriching educational opportunity for elementary school students.

These educational interactions can include guided tours, hands-on activities, and discussions on the importance of responsible forest management, the impact of invasive species, and the role of the community in preserving the local environment. Such shared learning experiences contribute to the students' environmental education and foster a sense of connection and responsibility towards their community and its natural resources.

	Print	Digital	In Person
Principal Strategy	- Town newsletter - Direct mailings via postcard or letters	- SMS text messaging - Town website	-Installation of tree nursery and pollinator gardens events - Workshop series to teach residents on invasives species and rare or endangered species - Citizen Science Workshops: Engaging Residents in Recording Invasive Species and Documenting New Tree Plantings through iNaturalist - Guided for Forest Walk with local arborist and hiker groups - Workshop building a climate resiliency landscape on private property - Ash tree art installation at schools and on hiking trails - Tabling at June Family Fun Day
Assisting Strategy	- Postings at Town Hall, Park, and Transfer Station	- Social media platforms, email updates	- Informational sessions and presentations at Town meetings and committee meetings
Equitable Engagement Modifiers	- Multilingual materials	- Accessible online content	- Tailored outreach to priority populations. - Ensuring accessibility for all residents, including those with disabilities - Providing food at meetings for inclusivity - Selecting diverse and accessible locations for meetings - Varied meeting times to accommodate different schedules
How Community Feedback Will Be Incorporated into Project and Mechanism for Sharing Results	- Collection of feedback through Town meetings and distributed surveys - Regular review	- Integration of online comments and suggestions	Community feedback will be integral to shaping the project's direction. The installation events, workshop series, and citizen science workshops are designed to provide residents with insights into the project's goals and gather their input. The guided forest walk with arborists and hiker groups offers a platform for direct

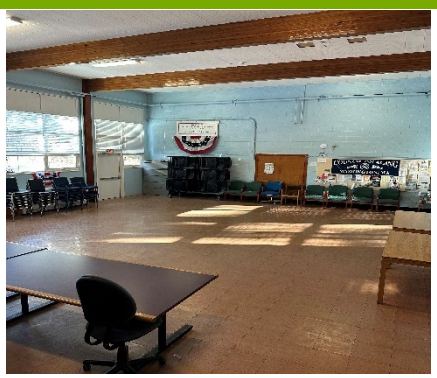
	and analysis of received feedback		engagement and feedback. Additionally, the workshop on building a climate-resilient landscape encourages collaborative planning, incorporating community preferences. The ash tree art installation at schools and trails serves as a tangible representation of community involvement. Regular updates through community meetings, newsletters, and online platforms will ensure transparent communication and the sharing of project progress and results.

Project Transferability, Measurement of Success, and Maintenance

The Forest Edge Management Strategy, with its focus on mitigating the impact of invasive species and enhancing climate resiliency, holds transferability potential for communities facing similar challenges. Its adaptable framework can be scaled and tailored to fit varying geographical, ecological, and demographic contexts. The collaboration with educational institutions, vocational training, and community engagement components provides a model that is transferable to other regions seeking to address environmental hazards while fostering workforce development and community resilience.

The success of this project can be gauged through several key metrics. Firstly, reducing the number of emergency calls related to fallen trees, especially during adverse weather events, would signify enhanced public safety. Monitoring the cost savings for the Town in tree removal and maintenance provides a financial measure. Monitoring the growth and health of newly planted resilient species and the decline of invasive species offers tangible indicators of ecological success. Surveys and feedback from the community on improved accessibility and safety during extreme weather events can contribute to assessing overall project success.

A comprehensive maintenance plan is essential to ensure the project's ongoing success. This involves periodic assessments of the planted areas, continued invasive species management, and the regular inspection of roadside trees for potential risks. Collaboration with utility companies should be maintained to address areas with utility poles. Community engagement initiatives, such as workshops and outreach programs, should persist to keep residents informed and involved. Regularly reviewing and adjusting the strategy based on environmental changes, emerging invasive threats, or community needs are integral components of the maintenance plan.


Town Hall Climate Resiliency Center

Background

Situated in Western New England, Washington is highly susceptible to winter storms. According to the NOAA-NCDC storm database there have been over 150 recorded events in the Berkshires from 2003 to 2023.[12] The Town's higher elevation and rural location increases the risks of extreme winter weather events. This risk can significantly impact the Town's infrastructure and the well-being of residents, particularly those considered at-risk or with limited resources. One of the most notable storms occurred on December 11th-12th, 2008, resulting in a damaging ice storm with over 2 inches of ice accumulation. This event led to widespread damage, including downed trees, branches, and power lines, ultimately causing a power outage lasting upwards of ten days.

The region's susceptibility to severe winter storms is compounded by the presence of older housing stock and a population predominantly consisting of vulnerable groups, such as older residents, families with young children, and individuals living alone. The impact of severe winter weather extends to disrupting access to emergency services, particularly affecting vulnerable populations, including those with disabilities and people with limited mobility or transportation. Residents with limited mobility risk becoming isolated or "snowbound" if they cannot remove snow from their homes.

In addition to extreme winter events, Washington also faces challenges related to rising summer heat. The MA Climate Assessment underscores the multifaceted impacts of heat, emphasizing its toll on critical infrastructure, notably the electric transmission and utility distribution systems. Additionally, the assessment outlines immediate community impacts, encompassing health and cognitive effects, degraded air quality, and potential disruptions to emergency services and evacuations. The MA Resilient Data anticipates that by 2050, the Town of Washington may experience an annual average of 20 days with temperatures exceeding 90 degrees Fahrenheit, including 4 days surpassing 95 degrees. Looking further

[12] https://www.ncdc.noaa.gov/stormevents/

to 2090, this figure rises to 47 days above 90 degrees, with 15 days exceeding 95 degrees.[13] Even modest temperature increases above seasonal norms can lead to adverse health outcomes. Consecutive days of elevated temperatures, especially in spring and early summer, often increase hospital admissions for respiratory, cardiovascular, and kidney-related diseases.[14]

Factors such as occupation, housing conditions, and individual sensitivity contribute to varying exposure and vulnerability to high temperatures. In Washington, 16% of housing units are buildings built before 1939. Another 13% and 21% of Washington units are in buildings from 1940-1959 and 1960-1979, respectively. Construction since 2000 accounts for 6.8% of units, compared to 9% statewide.[15] Washington's older housing stock proposes a vulnerability for those residents as they often lack modern climate-resilient features such as increased weatherization, insulation and cooling systems.
Certain individuals, such as infants, young children, pregnant people, older adults, and those with specific health conditions, are more sensitive to heat. Moreover, limited resources, mobility issues, or social factors may impede some individuals' ability to respond and prepare for extreme heat events, emphasizing the need for a comprehensive approach to safeguard all segments of the community.

Proposed Solution

The committee proposed a Climate Resiliency Action Plan with distinct elements aimed at enhancing community preparedness and resiliency. Firstly, the Town Hall will serve as a climate resiliency center in response to escalating threats of climate change. Recognized as the most stable site in the Town, with minimal natural hazard disruption and stable internet connectivity, the Town Hall emerged as a strategic location to assist residents. This approach would serve those unable to shelter in place, the aging population, especially those living alone during extreme cold and heat events, and residents with an aging housing stock that is insufficient for climate resiliency. The functions would include a space for cooling or warming, providing essential supplies, charging capacity for personal devices or medical equipment, and offering short-term stays during widespread utility loss or road closures. Key initiatives to retrofit the existing building include upgrading generators with backup battery storage, installing heat pumps, addressing accessibility barriers, and assessing storage and space for supplies and overnight accommodations, charging stations, and a comprehensive kitchen evaluation. Procedural planning under the Emergency Management Director (EMD) is a priority, alongside developing a transportation plan system to aid residents in reaching the shelter. Additionally, the plan involves a Solar Siting Study for solar power and battery backup. Given the age of the building, hazardous material remediation, including asbestos and lead, will need to be addressed.

Secondly, this project seeks to develop a communication plan to disseminate critical information during extreme weather events. The communication plan ensures effective outreach to residents, considering potential challenges like internet outages or power disruptions. Creative solutions, such as leveraging text messaging and coordinating reverse 911 through the sheriff's department, are integral components. Despite budget constraints limiting enrollment in CodeRED, the Town is committed to finding alternative means to establish resilient communication channels.

[13] https://resilientma-mapcenter-mass-eoeea.hub.arcgis.com/
[14] USGCRP (U.S. Global Change Research Program). 2016. The impacts of climate change on human health in the United States: A scientific assessment. https://health2016.globalchange.gov

Lastly, the Town Hall, already hosting Council on Aging dinners, yoga, and exercise classes, is poised to expand its community role. Given the Town's lack of dedicated community space, the Town Hall can fulfill this essential function, fostering a sense of unity and providing a platform for education around climate resiliency. This multifaceted vision positions the Town Hall as a functional government building and a dynamic space, enhancing community resilience and promoting awareness of climate-related challenges. The climate resiliency plan also seeks to leverage the Town's existing close-knit community fabric by introducing the "Adopt a Neighbor" program. This community-level action plan encourages residents to check on and support their neighbors, particularly those vulnerable to climate-related exposures. By incorporating this program, the plan takes a comprehensive approach, emphasizing community support and resilience as integral elements of the broader climate resiliency initiative.

Timeline, Scope, and Budget

The Town Hall Climate Resiliency Center envisions a strategic, phased approach to increasing forest resiliency and protecting public health. The project spans three distinct phases.

Phase I: Project Design
Phase I of the project encompasses a comprehensive approach to initiating the climate resiliency plan for the Town Hall. The primary steps involve coordinating with the building inspector for an occupancy evaluation and contracting a team of professionals, including architects and engineers, to assess the building's structure, electrical systems, and hazardous materials. Simultaneously, the solar siting study will commence to identify optimal locations for solar power and battery backup installations.

Phase I will integrate the ongoing ADA self-evaluation with the goal of identifying areas within Town Hall that require enhancements to ensure accessibility. Additionally, the Town's current energy efficiency efforts, including insulation and weatherization of Town Hall, will lay the foundation for future heat pump installations.

The committee will also establish the groundwork for the communication plan. This work includes identifying potential challenges and initiating discussions with community members. Outreach to neighboring Towns and other organizations will be conducted to gather insights on effective communication methods such as text, reverse call etc.

Timeline: 2 years
Budget: $260,000

Phase II: Final Designs and Permitting
Building upon Phase I, Phase II will focus on translating the conceptual designs into detailed plans and securing necessary permits. This process includes incorporating findings from the ADA self-evaluation, ensuring all enhancements align with accessibility standards. The energy efficiency measures initiated in Phase I, will continue, with additional emphasis on heat pump installation. Fire and safety compliance will be a priority during this phase, ensuring the resiliency center meets all necessary regulatory requirements. Collaborating with architects and engineers, the Town will develop comprehensive plans, including specifics on retrofitting, solar panel installation, and hazardous material remediation.

The communication plan will have a detailed strategy, specifying channels, content, and responsibilities.

Timeline: 1.5 years – 2 years
Budget: $150,000

Phase III: Implementation & Construction
In Phase III, key tasks include initiating the upgrades outlined in the designs and focusing on retrofitting the Town Hall into a climate resiliency center. Depending on designs, plans created, and feedback from the community, installing solar panels and battery storage , along with improvements to the overall infrastructure, will commence.

Timeline: 2-5 years
Budget: $1.3 million**A more accurate assessment of implementation costs will be determined in Phase II

Nature-Based Solutions and Environmental Co-Benefits

A key focus is promoting renewable energy, exemplified by installing solar panels on the building to reduce fossil fuel dependence and embrace clean energy sources. In parallel, recognizing the significance of green infrastructure, the plan suggests strategically planting trees on the Town Hall property's slope. These trees serve a dual purpose: mitigating erosion, stabilizing the soil, and acting as green infrastructure to enhance the site's suitability for the climate resiliency center. The selected climate-adaptive tree species will contribute to creating shaded areas and providing natural cooling during extreme heat events. Moreover, the trees function as habitats, supporting local biodiversity and enriching the overall ecosystem. In line with climate-conscious practices, they play a role in carbon sequestration, aiding the Town's commitment to reducing its carbon footprint.

The Town Hall serves as a vital resource for demonstrating and educating the community on climate-resilient measures that will be implemented throughout the Town. This educational role extends to initiatives such as a native plant and seed swap, fostering biodiversity, and establishing a community garden at the Town Hall. The community garden promotes local agriculture and is a practical example of sustainable and climate-resilient practices. Additionally, the garden incorporates a pollinator habitat, supporting local ecosystems and enhancing biodiversity.

Environmental Justice and Public/Regional Benefits

More than 30% of residents are 65 and older and 15% are 18 years and younger all of which face higher risks with extreme weather events. The vulnerabilities of these demographic segments stem from factors such as limited mobility, reduced capacity to respond to emergencies, and increased health risks associated with extreme cold and heat events. Additionally, addressing the risks posed by older infrastructure, such as homes with flooding basements and aging septic tanks, is crucial in ensuring the community’s resilience against extreme climates and infrastructure failures. Therefore, a Climate Resiliency Action Plan that addresses shelter space and education and fosters community solutions will safeguard Washington’s most vulnerable populations.

Furthermore, the Town acknowledges its responsibility as part of the broader regional community. By fostering collaboration with neighboring Towns through memorandums of understanding (MOUs), Washington seeks to act as an supplemental climate resiliency center. This regional approach involves sharing emergency plans and procedures, contributing to a strengthened network of climate resiliency

efforts. The interconnected MOUs will enhance the overall regional capacity to respond to extreme weather events, creating a more robust and collaborative approach to climate resilience.

Public Involvement and Community Engagement

This project fosters active participation, educates the community on climate-resilient measures, and builds a shared vision for a resilient and connected community This collaborative network includes Building/Maintenance Staff, contributing expertise in retrofitting the Town Hall; the Green Communities Chair, overseeing energy efficient practices; the Board of Health, actively involved in health and safety of the community, the DPW Superintendent and Police Chief, enhancing emergency planning; the Council on Aging involved in ongoing programming; the Federated Church in Becket, providing regional community support; and the nonprofit Communities Responding to Extreme Weather "C.R.E.W.", focusing on extreme weather education.

This strategy also includes developing a community action plan led by the Select Board and the Board of Health with input from the Council on Aging. This plan aims to coordinate with neighborhood volunteers such as "Adopt a Neighbor "to conduct wellness checks on older residents or individuals sheltering in place. This proactive approach seeks to minimize potential loss of life, support emergency services, and create a stronger community network during challenging situations. Additionally, the community group will focus on educating residents about carbon monoxide poisoning, a growing concern in rural communities that rely on generators and propane heaters during inclement weather. As part of this plan, disseminating smoke and CO detectors will enhance safety measures.

This project aims to creatively engage the community through various in-person, digital, and print methods, ensuring that diverse perspectives are considered.

	Print	Digital	In Person
Principal Strategy	- Town newsletter - Direct mailings via postcard or letters	- SMS text messaging - Town website	- Tour of Town Hall with interactive stations of conceptual designs to collect community feedback and ideas - Tabling at the Transfer Station - Council on Aging "Steak" holder dinner - Chalk art design at the Town Hall parking lot with youth - native plant and seed swap - implementation of community garden and tree planting at Town Hall
Assisting Strategy	- Postings at Town Hall, Park, and Transfer Station	- Social media platforms, email updates	- Informational sessions and presentations at Town meetings and committee meetings - Extend existing COA events at Town Hall during extreme weather. These 'mini preview' days will serve as practical trials fostering familiarity with the Town Hall's climate resiliency environment

Equitable Engagement Modifiers	- Multilingual materials	- Accessible online content	- Tailored outreach to priority populations. - Ensuring accessibility for all residents, including those with disabilities - Providing food at meetings for inclusivity - Selecting diverse and accessible locations for meetings - Varied meeting times to accommodate different schedules - Offering day care services to support those with work or family commitments
How Community Feedback Will Be Incorporated into Project and Mechanism for Sharing Results	- Collection of feedback through Town meetings and distributed surveys - Regular review and analysis of received feedback	- Integration of online comments and suggestions	- Structured engagement sessions to gather input and address concerns - Comprehensive reporting of community feedback and project adjustments

Project Transferability, Measurement of Success, and Maintenance

The climate resiliency plan for Washington aims for a transferable model that can be adopted by other communities facing similar challenges. By documenting the process, engaging with neighboring Towns, and establishing a Memorandum of Understanding (MOU), the project seeks to create a blueprint that can be shared, ensuring its applicability across diverse settings. The emphasis on community engagement serves as a scalable model, promoting the project's transferability.

Measuring success will be multifaceted and include key performance indicators such as community awareness and participation, successful implementation of climate resiliency measures, feedback from residents, and the establishment of effective partnerships. Quantitative data, such as the number of residents participating in climate resiliency programming (number of residents using the Town Hall, wellness checks and the adoption of climate-resilient practices etc.) will contribute to assessing the project's impact.

Maintenance of the project involves ongoing community engagement, regular evaluations of the climate resiliency center's effectiveness, and adaptation to evolving climate challenges. A continuous feedback loop involving surveys, Town meetings, and online platforms will ensure that the project remains responsive to the community's needs. Regular maintenance of the Town Hall's infrastructure, including the upgraded generators and solar panels, will be essential for long-term resilience.

Appendix A: Outreach

MVP Workshop Outreach

Britney Danials

From: Kent Lew <kent@kentlew.com>
Sent: Monday, December 4, 2023 10:09 AM
To: Ellen Bond; Nicole Miller; Town Washington; Steve Deloye
Cc: Courteny Morehouse; Britney Danials; Washington Town Administrator
Subject: MVP Workshop: Climate Resiliency Center – Dec 20, 1:00–3:00pm

Follow Up Flag: Follow up
Flag Status: Completed

Caution: This is an external email and may be malicious. Please take care when clicking links or opening attachments.

Ellen, Nicole, Rose, and Steve —

The MVP (Municipal Vulnerability Preparedness) Planning team is going to be meeting on Wed afternoon, 12/20, 1–3pm to workshop a Heating/Cooling Emergency Center project as part of our overall climate resilience planning.

The purpose of the workshop is to brainstorm ideas, develop the scope for a project, and gather information that can later be leveraged into a grant application for project funding.

I would like to invite the four of you as additional stakeholders in this conversation —

- Ellen, because of your role on BOH and ongoing interest in a Climate Resiliency Hub;
- Nicole, as our current Emergency Management Director;
- Rose, as our Council on Aging chair; and
- Steve, because of both your work with COA and your valuable background in emergency management.

Let me know if you would be interested and available to join us at the Town Hall for this meeting.

If you are interested but unable to attend in person, we can probably arrange a Zoom option for remote participation. (Ellen, I'm thinking you might be in Colorado by then?)

If you can't make this meeting, but are interested for future, let me know as I'm sure there will be additional meetings and discussions as a project takes shape.

— Kent.

Poster and Postcard for Listening Session & Survey


TOWN OF
Washington
MASSACHUSETTS
Special Town
COMMUNITY LISTENING NIGHT
Tuesday, March 19th
6:30 pm - 8:00 pm
at Washington Town Hall, 8 Summit Hill Rd
The Town of Washington invites you to learn and provide your input on three proposed projects to help the town prepare for climate challenges. Enjoy a delicious catered meal while The Municipal Vulnerability Preparedness Committee presents on flooding, downed trees, and extreme weather events.
R.S.V.P by March 9th
bit.ly/washingtonevent
(413) 442-1521 ext. 12
bdanials@berkshireplanning.org
Dinner Provided by Chester Common Table!

Online Outreach

From: Kent Lew
To: Britney Danials
Cc: Washington Town Administrator
Subject: Fwd: Climate Adaptation Projects Listening Night, Tuesday, March 19
Date: Tuesday, March 5, 2024 9:45:54 AM

Caution: This is an external email and may be malicious. Please take care when clicking links or opening attachments.

Just posted to the website. Below is the automatic email that went out to subscribers.

There is a linked page with the draft Summary for download. And the event has been added to the calendar.

Let me know if you see anything that should be corrected or amended.

— Kent.

Begin forwarded message:

From: "Washington, MA" <cmsmailer@civicplus.com>
Subject: **Climate Adaptation Projects Listening Night, Tuesday, March 19**
Date: March 5, 2024 at 9:41:26 AM EST
To: kentlew <kent@kentlew.com>
Reply-To: cmsmailer@civicplus.com

Climate Adaptation Projects Listening Night, Tuesday, March 19

In response to increasing challenges presented by climate change, Washington has been engaged in the state's Municipal Vulnerability Preparedness (MVP) program to complete a vulnerability assessment and develop an action-oriented resiliency plan. Our MVP team has been developing projects focused on mitigating and adapting to excessive flooding, threats to public safety from fallen trees, and extreme cold and heat events.

The MVP team is delighted to invite residents to participate in this planning effort. Join us for the ***Community Listening Night*** **on March 19th, 6:30–8:00**

The draft Summary of Findings plan is also available for download and review at washington-ma.gov/municipal-vulnerability-preparedness.

To attend the Community Listening Night, please R.S.V.P by March 13th at *bit.ly/washingtonevent*. Or you can R.S.V.P. by calling Britney Danials of Berkshire Regional Planning Commission at (413) 442-1521 ext. 12, or email her at *bdanials@berkshireplanning.org*.

If you are unable to attend, a survey is available to learn more about the projects and share your concerns or interests. Your feedback is vital in shaping these initiatives to address community concerns effectively. The survey can be completed online at *bit.ly/washmvpsurvey*, or paper surveys can be obtained at the Town Hall or the Becket Athenaeum.

Read more

This is an automatic message from Washington, MA. Please do not reply to this message.
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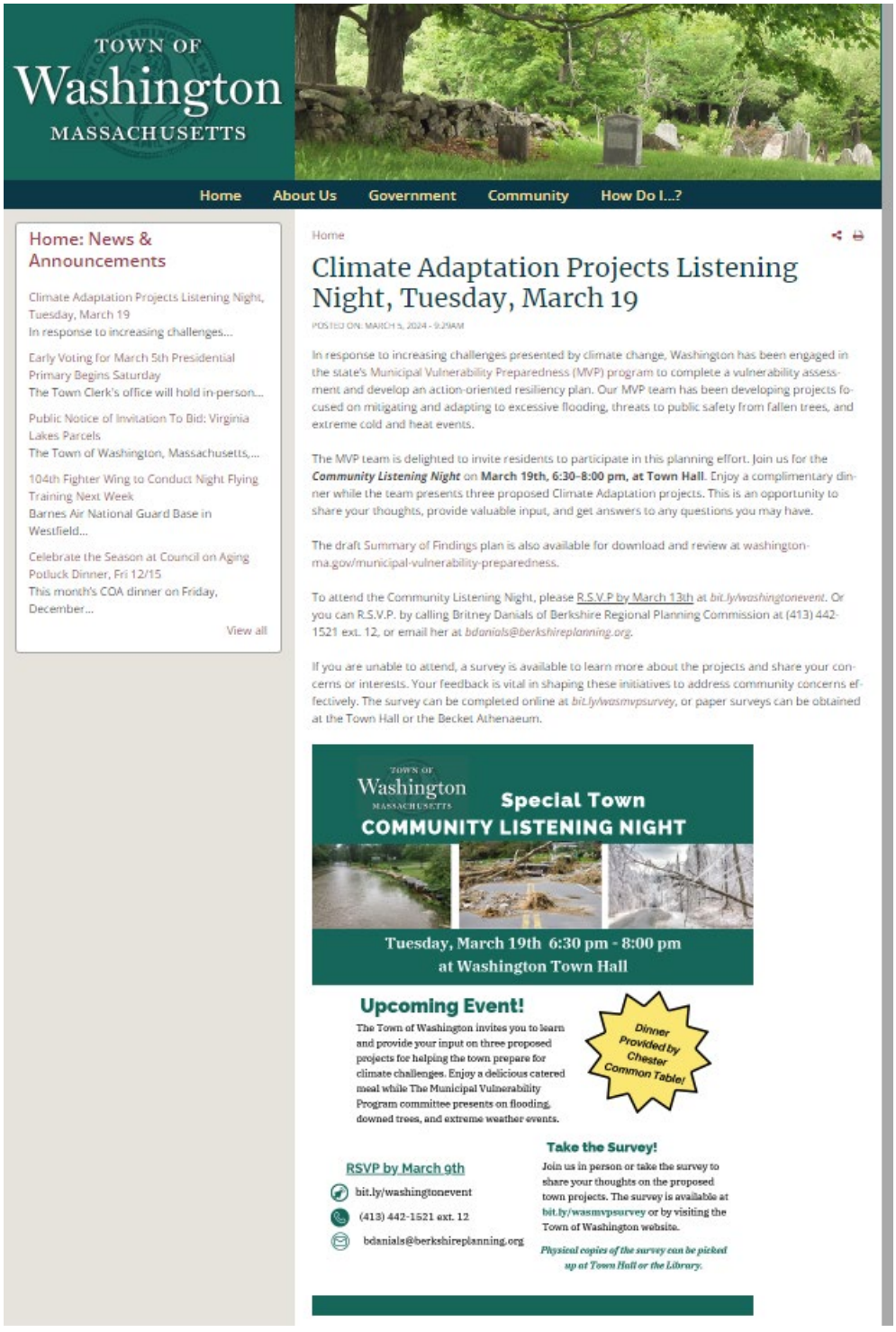
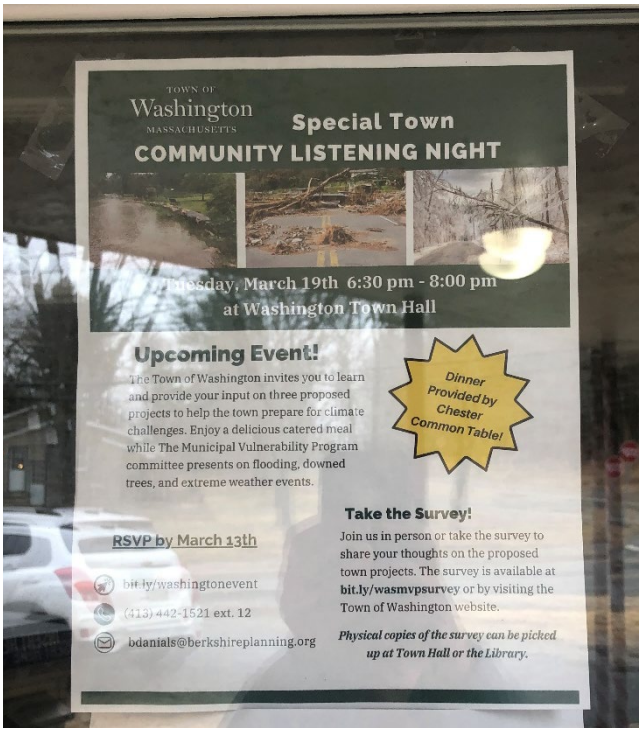
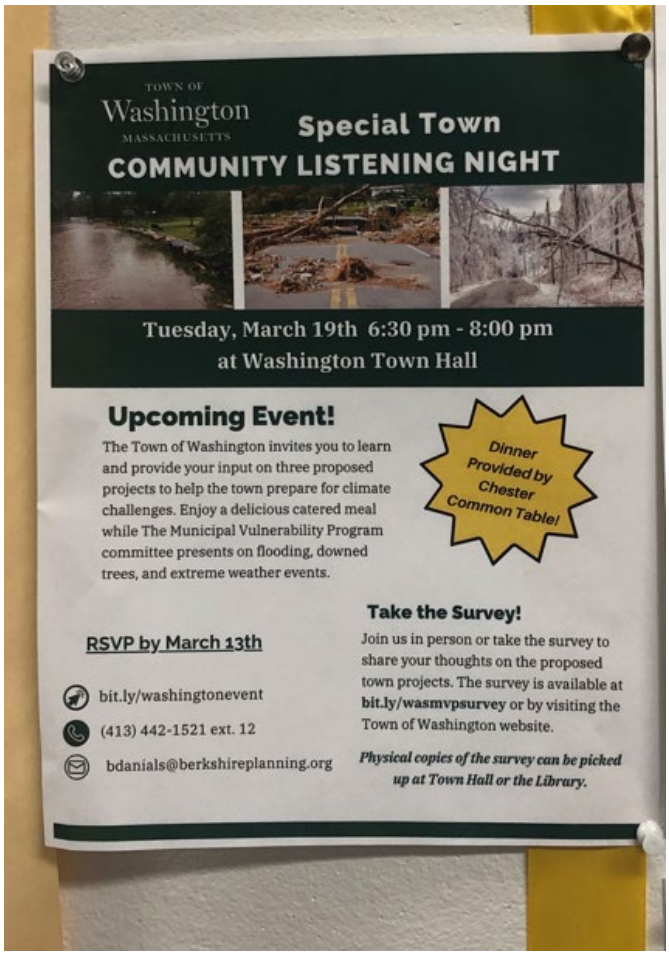
Town of Washington email Newsletter announcement



Washington town website home page



Poster at Town Hall



Poster at Transfer Station

Survey

TOWN OF
Washington
MASSACHUSETTS

Climate Adaptation Project Survey

In response to the identified risks from the impacts of climate change outlined in our recently completed Hazard Mitigation Plan, the Town of Washington has formulated three crucial projects to mitigate these increased risks. These initiatives have been developed through a grant from the Massachusetts Municipal Vulnerability Preparedness (MVP) Program.

We value your input and invite you to provide feedback on these projects to address our community's unique concerns. We ask for your feedback on the projects identified and hear what's most important to you when considering solutions. **Please respond by April 1st, 2024.**

In addition to this survey, the Town is hosting an in-person listening session to hear your thoughts, answer questions about these projects, and discuss Washington's plans to adapt to climate change. The listening session will take place on:

Tuesday, March 19th, 2024, at 6:30 pm Washington Town Hall. Chester Common Table will provide hot catered dinners of meat, vegetarian, and gluten-free options. *Please note that, unfortunately, we are unable to accommodate childcare for this event.* **To RSVP for the Community Listening Night, please call or email Britney Danials at Berkshire Regional Planning Commission, 413-442-1521 ext. 12 or** bdanials@berkshireplanning.org. Online registration is also available at bit.ly/washingtonevent

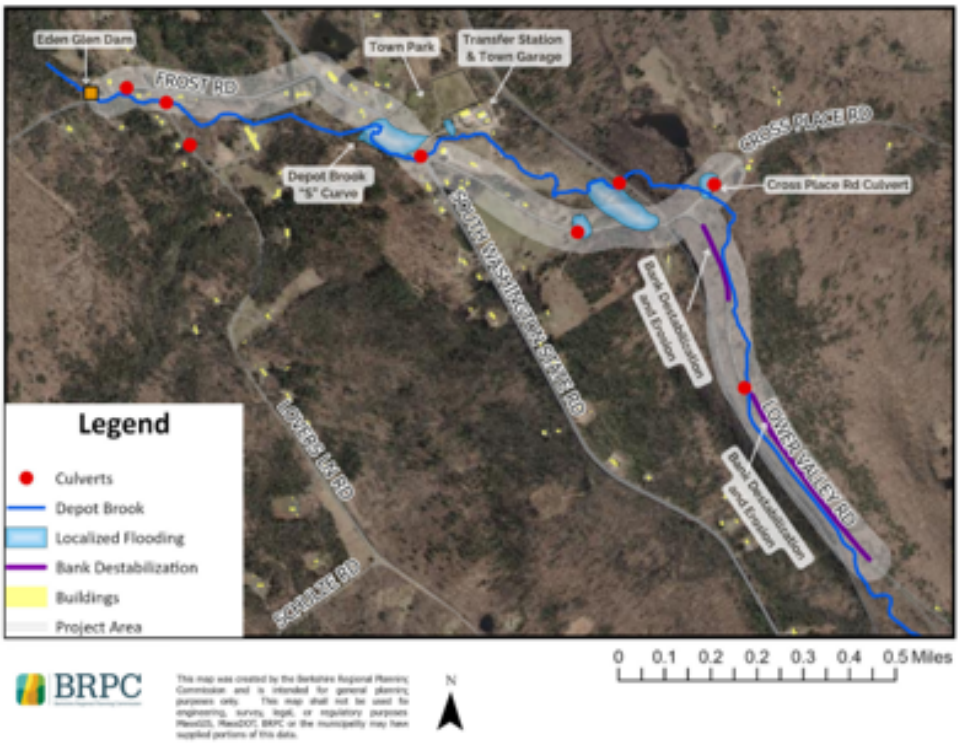
Question 1: What are your concerns about local climate and weather changes?
Be as detailed as possible. Examples: "My house isn't built for hotter summers." "Flooding makes roads dangerous" or "I'm worried about seasonal crops and agriculture."

1

Project #1 Depot Brook Project

The eastern section of Washington stands as the focal point of the town's development. S. Washington State Rd (State Route 8), a vital thoroughfare, serves as the primary conduit connecting residents to essential facilities such as the Town Hall, Town Park, Town Garage, and Transfer Station. Depot Brook intersects key town roads, including Frost Rd., S. Washington State Rd, and Cross Place Rd. Eventually turning south, it parallels Lower Valley Rd, making two crossings towards the southern end of the town. The proximity of these roads to the brook intensifies the risks of flooding stemming from recurrent heavy precipitation and storm events, compounded by the presence of aging and undersized stormwater infrastructure, including the culverts on Simmons Rd and Cross Place Rd, and the dam at Eden Glen on Frost Rd.

Depot Brook Project Area



BRPC

This map was created by the Berkshire Regional Planning Commission and is intended for general planning purposes only. This map shall not be used for engineering, survey, legal, or regulatory purposes. MassGIS, MassDOT, BRPC or the municipality may have supplied portions of this data.

2

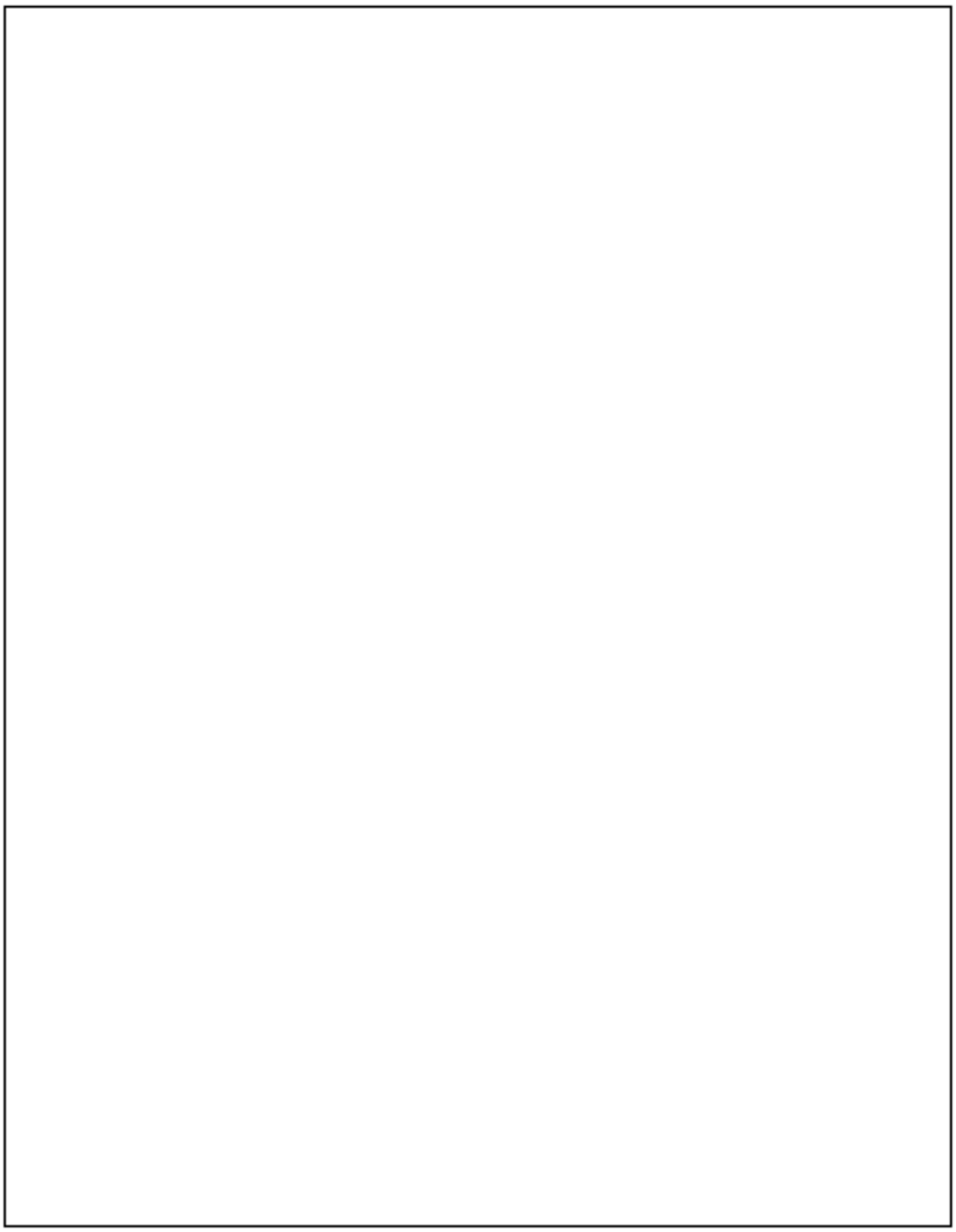
A particularly problematic spot is the Depot Brook near S. Washington Rd and the Town Park, locally known as "S Curve." Here, the accumulation of sediment and road gravel from upstream, near the Frost Rd. culvert, coupled with geomorphological vulnerabilities, increases the frequency of flooding during high rain events. Consequently, this issue results in disruptions to Route 8, damage to the Town Park, and erosion of access routes to the Transfer Station and the Town Garage. Historically, Town officials documented that this section would flood once per decade. However, since the summer of 2021, it has experienced flooding five times.

Further downstream, near the Lower Valley Rd and Cross Place Rd convergence, contends with persistent flooding, road washouts, and bank destabilization. Town officials note a widening of the Brook's bank, further threatening Lower Valley Rd. The culvert on Cross Place Rd has significant washouts and scouring, requiring extensive repairs during major storms. In July 2021, a sudden microburst caused flash flooding throughout the region. Twelve families were stranded on Cross Place Rd, necessitating $5,000 in road repairs. With each heavy rain, town staff continue to monitor and respond to recurring road erosion and blacktop breakage throughout Lower Valley Rd and Cross Place Rd.

This project will implement comprehensive flood mitigation strategies for Depot Brook. Key actions include assessing the aging Eden Glen Dam, conducting a downstream analysis, and implementing nature-based solutions to address bank stabilization. Additionally, the project aims to evaluate and upgrade infrastructure like the Cross Place Rd culvert, enhancing resilience against extreme weather events.

3

Question 2: What are your thoughts? What issues would you like to see addressed in this project? How has this area changed over time? What questions do you have?



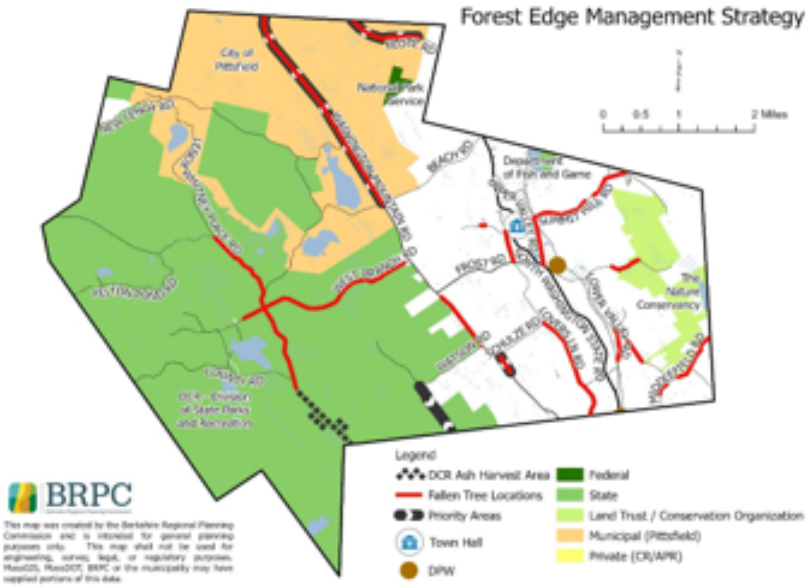
4

Washington Climate Adaptation Project Survey

Project #2 Forest Edge Management Strategy

Washington faces challenges with invasive species such as beech bark disease, black knot, sugar maple borer, and the prevalent Emerald Ash Borer (EAB), particularly threatening ash trees. The changing climate increases the risk of extreme weather events, leading to more frequent storms and invasive species that compromise tree vitality, contributing to heightened mortality rates. The Town allocates $10,000 annually for tree removal, removing over 30 trees, yet challenges persist, especially along critical roadways like Washington Road (Route 8). Fallen trees dominate emergency calls, endangering public safety, vehicles, lives, and power lines and isolating residents.

During the MVP workshop, committee members identified streets with recurring fallen trees and emergency removal, noted public safety concerns related to fallen trees, and highlighted essential commuter arteries. Particularly notable were areas along roadside edges that lacked utility poles, rendering them without the collaboration of utility companies to assist with tree maintenance. This assessment led to the conceptualization of "The Forest Edge Management Strategy," a project to address the heightened risk of fallen trees, particularly those afflicted by EAB. The primary objective is to proactively manage the forest edge along Town roadside areas, emphasizing public health, safeguarding infrastructure, and contributing to the overall health of the forest ecosystem. Key components include strategic studies of diseased or infected trees, risk prioritization, invasive species management, resilient planting, disease control, and a Tree Nursery Pilot Project, ensuring sustainable, resilient ecosystems.



Question 3: What are your thoughts? What issues would you like to see addressed in this project? What questions do you have? How have fallen trees impacted your travel or safety?

6

Washington Climate Adaptation Project Survey



Project #3 Town Hall Climate Resiliency Center

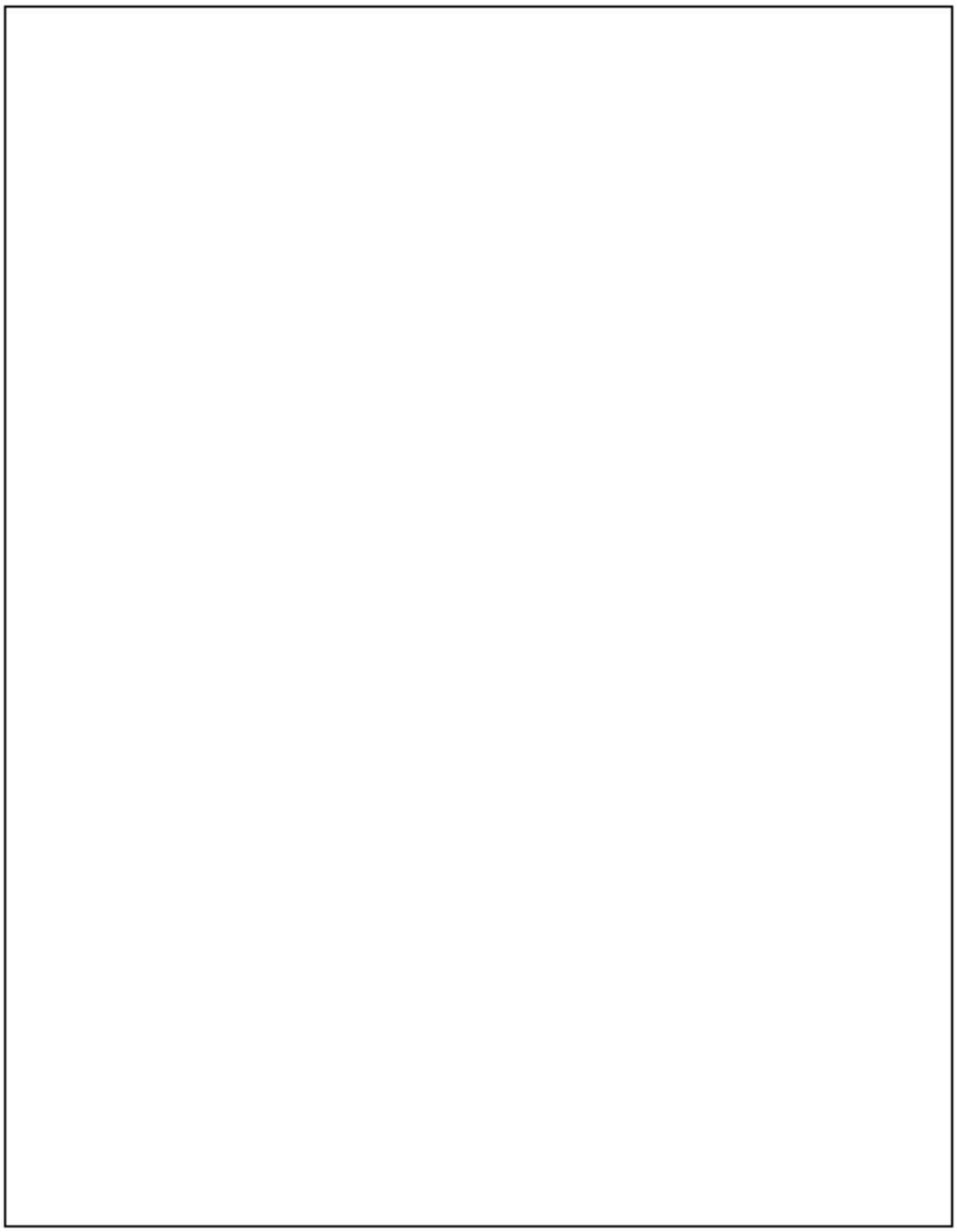
The Town's higher elevation and rural location increases the risks of extreme winter weather events. This risk can significantly impact the Town's infrastructure and the well-being of residents, particularly those considered at-risk, with limited resources, or who reside in an older home. One of the most notable storms occurred on December 11th-12th, 2008, resulting in a damaging ice storm with over 2 inches of ice accumulation. This event led to widespread damage, including downed trees, branches, and power lines, ultimately causing a power outage lasting upwards of ten days. The impact of severe winter weather extends to disrupting access to emergency services, particularly affecting vulnerable populations, including those with disabilities and people with limited mobility or transportation.

Washington also faces challenges related to rising summer heat, with climate data predicting higher-than-average hot days and more heatwaves. Modest temperature increases above seasonal norms can lead to adverse health outcomes for certain individuals, such as infants, young children, pregnant people, older adults, and those with specific health conditions. Washington's older housing stock creates a vulnerability for those residents as they often lack modern climate-resilient features such as increased weatherization, insulation, and cooling systems. Limited resources, mobility issues, or social factors may impede some individuals' ability to respond and prepare for extreme heat events, emphasizing the need for a comprehensive approach to protect all community segments.

This project addresses the heightened risks posed by extreme winter weather and rising summer heat in Washington. By transforming the Town Hall into a climate resiliency center, implementing a communication plan for extreme weather events, and fostering community support and engagement, the project seeks to enhance overall community preparedness and resilience.

7

Question 4: What are your thoughts? What issues would you like to see addressed in this project? What questions do you have?



8

Question 5: What street do you live on? (Please do not include house number)

_____

Question 6: What is your age?

- ☐ Under 18
- ☐ 19-29
- ☐ 30-49
- ☐ 50-65
- ☐ Over 65

To RSVP for the Community Listening Night on March 19th, please call or email Britney Danials at Berkshire Regional Planning Commission, 413-442-1521 ext. 12 or bdanials@berkshireplanning.org

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Please return this paper survey to the Town Hall or the Library.

Your input is valuable as we move forward with each of these projects and prepare Washington for the future. Thank you!

Appendix B: Community Input

Input Summary

Twenty-nine people participated in the survey, with all respondents residing in Washington. Among those who provided their age (16 responses), the majority were over 65 years old, comprising 82% of the responses. Only one response was received for the age groups of 30-49, two responded as 50-64, with no responses from youth and children under 18 years old.

The survey aimed to gauge residents' concerns about climate change and their support for three priority projects. Flooding emerged as the primary concern, including both property and road flooding. Insect proliferation impacting crops and agriculture followed closely. Other concerns included hotter temperatures, rising heating and cooling costs, and more frequent severe storms. Regarding the three priority projects, the majority of respondents expressed support regardless of their direct impact. Common inquiries revolved around funding sources. The Listening Session addressed these concerns, and a Q&A session was subsequently posted on the Town website for further clarification.

Depot Brook Project

The survey responses regarding the Depot Brook project reveal a shared concern among residents regarding the detrimental impact of flooding, particularly along the Depot Brook extending to Lower Valley Rd. Residents living along South Washington State Rd and Town Park have experienced significant property damage due to flooding from the brook, with some reporting that floodwaters have come within four feet of their homes. Concerns also extend to the potential liabilities associated with flooding, such as the risk of train derailments. Long-term residents highlight the urgent need for infrastructure improvements, citing past disasters and ongoing challenges posed by culvert blockages and debris accumulation. Suggestions for addressing these issues include the removal of the dam at Eden Glen, installing larger culverts, and vegetation management along the brook to prevent blockages during severe rain events.

Forest Edge Management

Residents express concern about the potential impact on travel safety and infrastructure integrity, citing instances of blocked roads and safety hazards caused by falling trees, particularly along Washington Mountain Rd. Specific concerns center around the need for tree management along Washington Mountain and Frost Rd, with an emphasis on addressing safety hazards posed by larger diameter trees and standing dead trees. Residents also emphasize the importance of grant funding to support these mitigation efforts, particularly for managing roadside trees and addressing the spread of pests affecting tree populations. Additionally, concerns are raised about the lack of maintenance of smaller trees close to roads, necessitating concentrated efforts to clear areas back from roadways to mitigate road hazards.

Town Hall Climate Resiliency Center

Survey responses strongly support the concept, highlighting its potential benefits for residents who may struggle with temperature regulation. However, concerns are raised about the practicalities of implementation, including infrastructure upgrades and funding availability. Residents inquire about future government grants for property upgrades and suggest addressing communication gaps and the feasibility of building a new town hall. Residents also inquire about government grants for climate resilience projects, highlighting the need for funding to support short-term emergency shelter at town hall. Some

residents express personal preference for sheltering at home, suggesting the importance of considering individual needs and preferences in the center's design and outreach efforts. Overall, while residents recognize the importance of the project, they emphasize the need for careful consideration and planning to ensure its effectiveness and accessibility.

Listening Session and Survey Q/As

Q: Our town has potential! Communication with our older population needs to be addressed. When will the town know about Town Hall as a cooling center?
A: The Town Hall's potential use as a heating/cooling center is currently under exploration, recognizing the significance of timely communication, particularly for our older residents. As the committee progresses in developing this concept, dedicated communication channels will be established to ensure the community is informed about the center's availability and operation.

Q: As weather changes, will our well and septic system remain in working order? Will the cost of heating in the winter/cooling in the summer be affordable? Will emergency services be available and timely during floods or power outages?
A: The town has recognized the importance of addressing climate-related challenges. Through projects such as the Depot Brook Project, Forest Edge Management Strategy, and Town Hall Climate Resiliency Center, efforts are underway to mitigate risks associated with extreme weather events. These projects aim to enhance infrastructure resilience, safeguard public safety, and ensure timely emergency response during floods or power outages. Price increases are unpredictable, but through each of these projects, the town will incorporate strong efforts for programming geared to individual resilience that can help mitigate high energy burdens.

Q: Are there areas where flooding could cause the town to be liable for a train derailment?
A: Under the Depot Brook project, A future flood analysis, including risk assessment, would determine if flooding impacts would be in or near the CSX rail line. Any results would be shared with CSX to mitigate any flooding impacts that could lead to train derailment.

Q: Are there treatments for trees except cutting them down?
A: Yes, there are treatments available for trees affected by issues such as the emerald ash borer, aside from resorting to cutting them down. These treatments are primarily focused on prevention or addressing early signs of infestation. Injectable pesticides, for example, can be administered as a preventative measure or in the early stages of infestation to protect the trees. However, once a tree is heavily infested, these treatments may no longer be effective. In such cases, tree cutting becomes necessary to prevent the further spread of infestation. However, as part of the Forest Edge Management project, we aim to implement a range of resilient ecosystem strategies beyond tree cutting. This may include planting new trees, enhancing habitat diversity, and employing other measures to promote ecosystem health and resilience.

Q: Are there government grants available to towns or individuals to upgrade property to deal with climate related issues?
A: The Municipal Vulnerability Preparedness (MVP) is a state program aimed at assisting cities and towns across Massachusetts in proactively planning for climate change resilience and executing priority projects. Through this program, communities receive funding to conduct vulnerability assessments and craft

action-oriented resiliency plans. In alignment with this initiative, the Town of Washington recently concluded its MVP planning process, which served as an appendix to its 2019 Hazard Mitigation Plan. As a result of this comprehensive planning endeavor, three priority projects were identified to mitigate vulnerability to natural disasters and enhance infrastructure and community resilience.

Q: Will this process look at cell towers as critical infrastructures?
A: Yes, as part of our analysis, we will assess the vulnerability of cell towers to natural hazard impacts such as wind and storms. Understanding the resilience of critical infrastructure like cell towers is essential for effective climate resiliency planning.

Q: A lot of people won't leave their homes without pets, will pets be considered part of the climate resiliency shelter?
A: Yes, the proposed Climate Resiliency project aims to explore all aspects of feasibility for community members to shelter safely and comfortably.

Q: Are there interim programs to help residents with climate change?
A: Residents can take advantage of programs like MassSave, which offer assistance with energy efficiency improvements at little to no cost. These initiatives are part of broader efforts to help residents adapt to and mitigate the impacts of climate change on their homes and communities.

Q: Does each project compete for MVP grant money or do they each get one? Do we look at what is costing the town?
A: The MVP program is competitive, so while multiple projects can be submitted in a single application phase, they ultimately compete against each other for funding. The town carefully considers the financial implications of each project and its ability to manage the associated costs. Additionally, each project requires a 10% match from the town based on past application years.

Q: Is it likely these projects will be done in 10 years or is there only funding now? How sustainable is this program?
A: Our proposed projects are designed with multi-phase implementation plans, as outlined in the Summary of Findings. While we aim to make progress within a reasonable timeframe, delaying action on climate hazards only increases costs and response time. Fortunately, there's a growing commitment to climate resiliency at both the state and local levels, with increased funding availability and ongoing support for such initiatives. Therefore, we anticipate continued funding and progress toward our climate resiliency goals in the coming years.

Survey Responses

Date	Question 1: What are your concerns when it comes to local climate & weather changes? Be as detailed as possible. Examples: "My house isn't built for hotter summers." "Flooding makes roads dangerous" or "I'm worried about seasonal crops and agriculture."	Project #1 Depot Brook Project Question 2: What are your thoughts? What issues would you like to see addressed in this project? How has this area changed over time? What questions do you have?	Project #2 Forest Edge Management Question 3: What are your thoughts? What issues would you like to see addressed in this project? What questions do you have? How have you fallen trees impacted your travel or safety?	Project #3 Town Hall Climate Resiliency Center Question 4: What are your thoughts? What issues would you like to see addressed in this project? What questions do you have?	Question 5: What street do you live on? (please do not include house numbers)	Question 6: What is your age?
2/26/2024 17:57:41	I live at 386 South Washington State Rd. The flooding of Depot Brook from it backing up down at the culvert has damaged my property many times and has come within 4 feet of my house at certain points.	I live at 386 South Washington State Rd. The flooding of Depot brook from it backing up down at the culvert has damaged my property many times and has come within 4 feet of my house at certain points.	I mainly travel Route 8 in and out of town, so it doesn't really affect me.	I think it's a great idea.	Next to the town park.	30 - 49

2/29/2024 17:36:31	We are worried about the future. Being 60 years old, we probably won't be alive to experience the worst of climate change. We worry for future generations of all people on the earth, let alone our own children and grandchildren. -We wonder if the berries we grow here at Blueberry Hill by the Appalachian Trail will survive frosts that come after flowering, microbursts that hit the farm, too much rain and ice, and fear winds that can rip things up. Flooding isn't such an issue being up so high but for all the people who live close to streams and rivers and lakes, it can be scary.	Having only lived here full-time for about seven months I don't know a lot about specific roads and waterways. I'd like to learn more by listening to others.	I think it's important to manage the roadside trees, especially. It is sad to have so many affected trees in our area, especially the maples, since so many people seem to collect sap from them.	It is good there is a new roof! Having a place to cool off or heat up is a great idea for people who cannot do so on their own. I wonder if the Townhall building needs better insulation or other factors like that to be this kind of center for the people in town.	Washington Mountain Road	50 - 65
3/1/2024 15:51:49	As weather changes will our well and septic system remain in working order? Will the cost to heat in the winter/cool in the summer be affordable? Will emergency services be available and	Are there areas where flooding could cause the town to be liable for a train derailment?		Are there government grants available to towns or individuals to upgrade property to deal with climate related issues? I think a climate resiliency center/evacuatio	South Washington State Road	Over 65

	timely during flood or power outages?			n center is a good idea.		
3/7/2024 10:24:11	Extended power outage from climate-related storms. Secondary road power lines receive no preventative maintenance. Tree clearing etc.	Road repair and upkeep is required. Because of a lack of yearly maintenance in the Lower Valley, Cross Place Rd areas road have deteriorated, requiring substantial repairs.	Again, the lack of maintenance of smaller trees close to the road has now allowed them to grow and cause road hazards. Since the updated power line tree trimming on Rte, 8 cost should be concentrated on secondary town roads, clearing areas back from the roadways.	Money to support utilizing the town hall for short-term emergency shelter is needed to adequately meet the needs to develop this project.	Ryan Rd	Over 65
3/19/24	Insects like ticks. Proliferation. Loss of pollinators and loss of crops.	Obviously, as they live on South Washington Rd. Flooding is a big concern.		One of the biggest issues with updating the town hall is conformity. The cost to get the building up to code is quite steep. Hopefully we can get funding, Like federal or state, to help with Some. Along with the cost of upgrading the electrical system to deal with the greater power demands from heating pumps, etc.	South Washington Rd.	50-69
3/19/24	My priorities are Depot Brook,.Forest Edge and Climate Resiliency Center.				Middlefield Rd	Over 65.

3/19/24	Flooding makes roads dangerous and increases in forest and brush fires.	Flooding of Route 8 at Town Park is a real problem. Emergency vehicles can't respond.	All three proposals are critical! It's very hard to rank them.			Over 65.
3/19/24	I am a tree farmer. The very wet summer of 2021, followed by the 2022 summer drought, was a disaster for my smaller, less established Christmas trees. I also have Timberland.I have very few ash trees that haven't been destroyed by the emerald ash borer.So far, the hemlocks haven't been seriously affected by the hemlock woolly algae.that will be followed by an elongated hemlock scale. Which will be detrimental to my for Christmas trees.	I've only been here for 37 years, and in that time, I've seen 4 disasters associated with Depo Brook. I think this project is the #1 priority.		I'm Yankee through and through and not likely to take advantage of this.		Over 65.
3/19/24	Flooding destroys roads flooding loosened soils around roots, Trees fall. Soil erosion.	I think we can't control the amount of water that.Arrives at Eden Glen.But we can't control how and where it is delayed.Dispersed from the dam to cross Place Rd.	Washington Mountain requires Rd. edge cutting of larger diameter trees 12 inches.Plus or minus. Frost Rd. requires cutting on Old Borgnis property.With substantive EAb.Damage.And standing dead	We need to educate on population about mold.Heat pumps.Heat and AC basement retrofit.Driveway upgrade.We need to purchase.And.Log cabin below.Bev Willies.House to control access		

			trees should be laid down to rot and Stabilized soils.	to water from Eden Glen.		
3/19/24	Local flooding issues are an issue. The wind on the hilltops. And other areas caused downed trees and blocked roads. It is not a critical issue, but the groundwater has increased. I grow my own food and my garden regularly floods.	I agree that this is the greatest issue that needs to be addressed, the S curve. Near route 8 is a huge problem as is the cross place for the culvert. Having lived there longer than 25 years, I have seen a big change. I am of the opinion that the dam at Eden Glen be removed to. Allow the natural flow of the stream. But the issues downstream would need to be dealt with first.			Frost Rd	Over 65.
3/19/24	The road that I live on has flooded in the past. I live below Eden Glen Dam. Also, too much salt is being applied to Lower Frost Rd. polluting our gardens and Depot Brook!	The culverts filled with debris.	This will impact us in a way our. The highway department cannot handle it. There is no doubt that this will make travel impossible as trees fall, and they do and will even more on ash and other species die.It is also a safety hazard. People could be killed	This is an important safety net. The idea that we build an entirely new town hall is lovely idea, but I can't imagine who would manage such a monumental project. We can only afford 1/2 full-time town manager whose job is full of other things.	Washington Mountain Rd	Over 65.

			and some houses here would be blocked completely if trees blocked roads.	This seems to me an unrealistic idea.		
3/19/24	The Depot Brook runs across from our house, and we are in the 100-year flood. We have had a tree fall on our deck and has spent a lot of cutting down trees around the house. Although fans are adequate. Cooler house, prolonged heat spells do present a concern. We did use an air conditioner for short periods last summer, but would love to put in some heat exchangers. The cost is hearing us. At present, we rely on oil heat so that heat exchanges would be the cleaner heating backup source. We put in a generic generator. Two years ago, which helps with power outages. We also put solar up all over our house. We own in Dalton that we rent to our daughter.She pays no electric	I think all the initiatives to help mitigate flooding are great. I'm concerned about Eden Glen dam also and would like to see the dam removed. New and larger culverts and plantings of Agitation to stabilize the banks are a great idea. I do have concerns about the number of downed trees in Depot Brook along with a lot of debris that has collected in spots. I fear that it will all break loose in a severe rain event and clog the underpass under the railroad tracks. On Lower Valley Rd. The dirt section. Or other culverts downstream. I would love to see these	Hopefully the removal of many trees along our roads with the help of Eversource will help.	Our town has potential! Communication with our older population. Needs to be addressed. When will the town know about town Hall as a cooling center?	Frost Rd	Over 65.

	bill. We reap most of the benefit on any extra it produces through a program with Eversource.	trees removed as a precaution.				
3/19/24			Ash trees are a concern all over Washington, as are the Pines bordering Washington Mountain Rd. The cost to trim back the portion on Washington Mountain Rd. Referred to would cost the town $200,000. We just don't have that kind of money.I'm on the Finance Committee. Can you help with Grant's writing to find grants to fund such mitigation.	Yes to a heating and cooling hub. In town, as well as an emergency shelter. Upgrades to the bathrooms and kitchen would likely be needed.	Lower Valley Rd	Over 65.
April 2024	As our home is on a hill, we are fortunate not to be bothered by flooding, or because of summer breezes and ample shade trees the increased summer heat is not a problem. However, we are aware of the increase water levels during storms that affect Morgan Brook. The dams for our pond		The EAB and the sugar maple borer ad the beech bark disease is everywhere in evidence in the woodlands on our property. the beech, maple, and ash trees along our driveway are very concerning and must be addressed this summer. here again, this is our problem to solve, but we		Lovers Lane Rd	Over 65

	which have been in place for nearly 50 years, have been washed out. Attempts to repair them are food for a few months, and another major washout occurs. We realize these concerns are ours and do not affect others. We are much more aware of the overall conversion in our town. The work that has been done it identify the mitigation projects outlined on the pages i impressive. We are grateful for the work and thinking that has gone into this.		are grateful the forest edge management strategy works and will be eager to lean in what invasive species management can do and what we can do to help ensuring sustainable, resilient ecosystems.			
April 2024	flooding of Upper Valley Rd due to weather and beavers		Are there treatments for trees except cutting them down?	Addressing heat and cold seems like a good idea for a town hall climate resiliency center. Care of pets must be a part of this.	Upper Valley Rd	Over 65
April 2024	flooding on Route 8 and Simmons Rd and power outages	clean out all necessary sediment. straighten the "S" curve as much as possible	Harvest affected trees as allowed, seek additional monies from the state using all available resources	Make town Hall into a warming/cooling center location. In addition be able to provide potable water, light food, and generator power back up	Simmons	Over 65
April 2024	All the of the above plus loss	I agree with your	Agree with your plans especially	Have supplies of water, food,	Simmons Rd	Over 65

	of electricity, asl the impact on the all animals (creatures) water and air (the whole earth)	perceptions and plans	new plantings and the tree nursery project	baby needs, pet food, and space for them, and back up way to store and get these supplies in time of need		
April 2024	No A/C in the house. We are worried about hotter summers. not enough rain. Having to water more. Flea and ticks all year around. Animals are getting confused because winters are getting shorter. They come out too early or never hibernate.		Fallen trees on the road have stopped traffic. Also, are we replanting any trees that are being removed? Does Eversource or Horizon take down trees that threaten their lines? Electricity goes out all the time.	A town-wide alert system based on texting would be great. How about a cooling station where people can come when their house is too hot.	Washington Mountain Rd	50-65