City of Everett

Community Resilience Building

Summary of Findings

June 2019

Everett City Hall
Photo Source: City of Everett

BSC GROUP

PREPARED AND PRESENTED BY

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City of Everett
Source: City of Everett

EXECUTIVE SUMMARY

In accordance with Executive Order 569, which seeks to build resilience and adapt to the impacts of climate change, the City of Everett, Massachusetts is pleased to submit this Summary of Findings Report. In 2018, the City of Everett applied for and received a Municipal Vulnerability Preparedness (MVP) program planning grant from the Massachusetts Executive Office of Energy and Environmental Affairs (EEA) to complete a vulnerability assessment and action oriented resilience plan (Findings Report). This planning effort followed the Community Resilience Building (CRB) framework developed by The Nature Conservancy. The CRB framework uses a community-driven workshop process to identify climate-related hazards, community strengths and vulnerabilities, and develop solutions to address these considerations. Completion of the CRB process enables the City to achieve MVP community designation status from the EEA and receive preference for future state grants under the MVP program or other participating funding entities. As climate change continues to alter the way municipalities evaluate risk and manage resources, it is important to evaluate the effects of climate change and the solutions to address these challenges in a manner that assesses the interdependency of Everett's infrastructural, societal, and environmental features. This Findings Report provides an important step in Everett's journey to establish climate resilience within this community.

City of Everett
Source: City of Everett

COMMUNITY RESILIENCE BUILDING PLANNING AND WORKSHOPS

The CRB process began with the establishment of a Core Team comprised of municipal staff members and local nonprofits. The Core Team held strategic planning sessions on October 2, 2018, December 13, 2018, February 28, 2019, March 21, 2019 and May 9, 2019. Core Team meetings involved developing a broad understanding of the Hazards, Vulnerabilities, and Strengths that characterize the City of Everett, and to identify a list of Preliminary Resilience Actions that the community may consider at the CRB Workshop. Core Team meetings were also used to identify the goals of the workshop within the context of community interests and needs. The Core Team decided that it was important to use the workshop as a mechanism to engage with the community using interactive media platforms such as a GIS community data viewer prepared specifically for the workshop and an interactive demonstration of the Massachusetts Data Clearinghouse Website, resilientma.org.

The Community Resilience Building Workshop was held on March 28, 2019 at the enVision Hotel. Workshop participants included a diverse set of community stakeholders from municipal departments, local businesses, non-government entities, and local interest groups. Presentations were given by the City of Everett and BSC Group, as well as representatives for the MyRWA/Resilient Mystic Collaborative and City of Chelsea to support the CRB workshop breakout groups in the morning and afternoon. BSC Group led two engagement and education Adaptation Action Stations giving participants interactive use of GIS mapping of hazards. Solutions derived from the breakout groups were integrated in the CRB Planning Matrix and the day concluded with a brainstorming effort intended to identify interdependent project types that may be eligible for funding under the MVP program or other Massachusetts grant sources.

Climate resilience planning requires an ongoing effort by community stakeholders. Workshop attendees and other interested stakeholders are encouraged to provide comments, corrections, updates, or additional information of findings transcribed in this report to Greg St. Louis at greg.stlouis@ci.everett.ma.us . The success of climate resilience planning in Everett is contingent upon ongoing participation of community stakeholders.

DEFINING HAZARDS

The City of Everett has several challenges related to establishing resilience to the effects of climate change. Everett is a dense, urbanized community bound by two major rivers - the Mystic River and the Malden River. With both tidal and dam-controlled waterfront areas, major commercial/industrial land use and significant impervious land cover, Everett is already familiar with coastal storm damage, inland flooding and urban heat island effect. In 2017, coastal storms damaged existing tide gates, flooded the New England Produce Center and restricted stormwater discharge from the Commercial Triangle area leading to up to two (2) feet of standing water on properties along Revere Beach Parkway/Route 16. Inland flash flooding incidents from intense precipitation events also occurred on Vale Street and in other areas of the Commercial Triangle in 2017. Climate change is expected to increase the occurrence and intensity of weather-related events and further stress municipal resources to address these types of incidents.

During the Core Team and CRB planning efforts, stakeholders identified the top natural hazards for the City of Everett. Coastal flooding was identified as the top hazard among most participants. Inland flooding from precipitation events, extreme temperatures, and extreme snow events represented additional climate exposure hazards and were highlighted as significant concerns for the City. Collectively, it was agreed upon by the group that the City of Everett's top hazards present ongoing and cumulative adverse impacts on the community's most important infrastructural, societal, and environmental resources.

TOP HAZARDS WITHIN EVERETT

CHARACTERIZING A CLIMATE RESILIENT EVERETT'S MUNICIPAL VULNERABILITIES AND STRENGTHS

The CRB process involves a robust stakeholder engagement effort and can be used to characterize the vulnerabilities and strengths unique to a given community. The Everett CRB process revealed important characteristics that broadly represent the identity and culture of the community. Collectively, these characteristics provide a *snapshot* of the community's vulnerabilities and strengths and is an important starting point to identify community features most at risk to the effects of climate change.

Mystic, Island End and Malden Rivers - Coastal and Riverine Opportunities and Risks

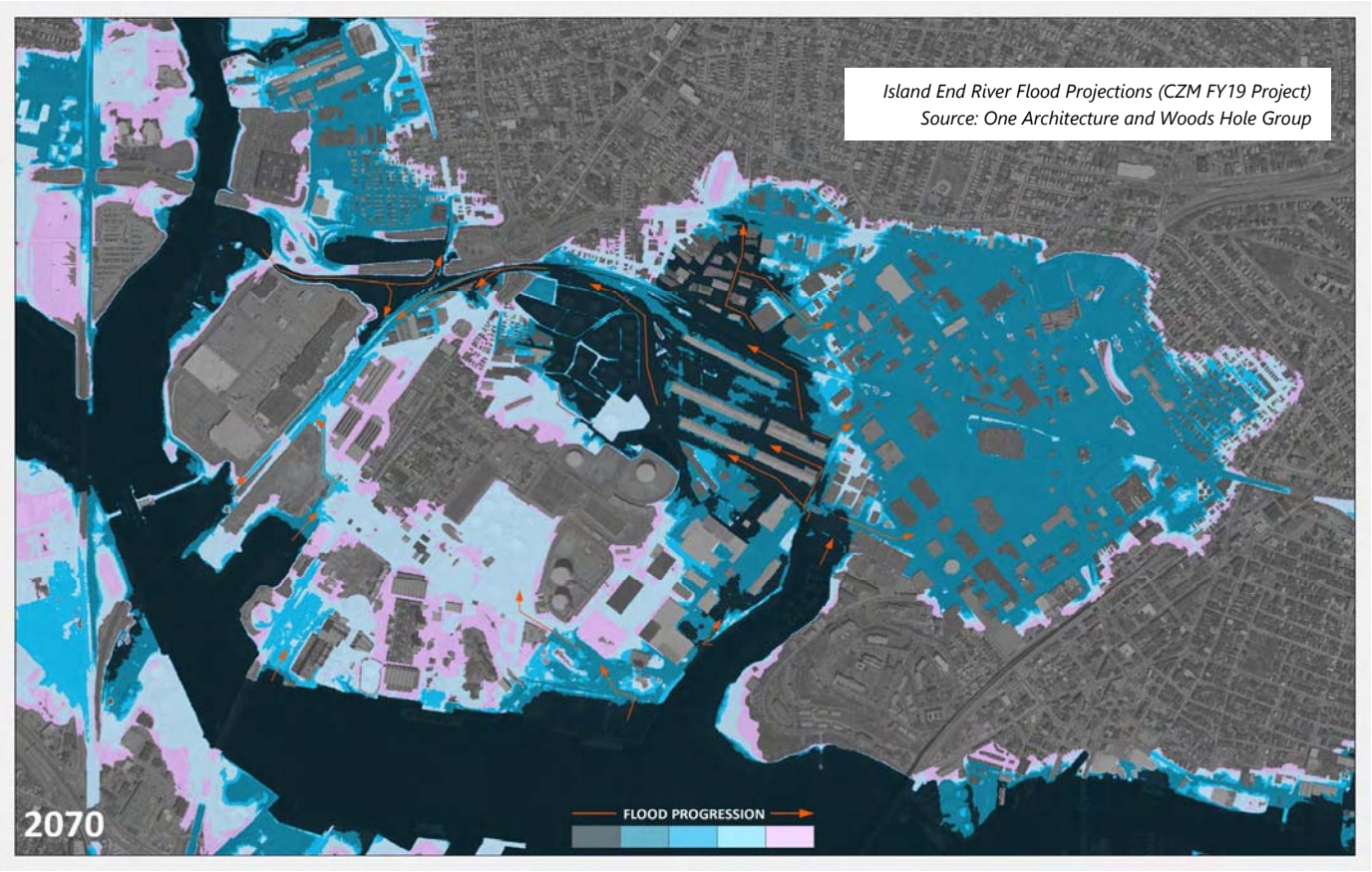
The City of Everett is bound by two major rivers – the Mystic River along the City's southern perimeter and the Malden River along the City's eastern perimeter. The Island End River is a tributary to the Mystic River and is located south of the DCR Amelia Earhart Dam. The dam provides an important tidal management resource on the Mystic River to control upstream flooding in the Mystic River watershed. The community recognizes these rivers as an important source of strength and vulnerability within the community because of the resources they provide and the challenges they present for the City of Everett.

These rivers are an important regional asset for food security and job creation centered around a thriving produce distribution industry at the New England Produce Center. These rivers also serve as a gateway to connect the City of Everett to recent economic development across the Mystic River in Somerville and to public open space along the Mystic and Malden Rivers in Medford and Malden. The Island End River has been significantly altered historically by industrial development and associated fill activities for sites like the

Historic Map of Everett and its Rivers
Source: City of Everett

New England Produce Center where the river was culverted in 1968. Due to lack of maintenance and the impacts of significant uncontrolled stormwater and tidal flows, the Market Street Culvert at the New England Produce Center is failing with several collapsed pipe sections and exposed sinkhole areas that pose a risk to public safety, the local produce industry, and water quality in the Mystic River. The Cities of Chelsea, Everett, along with other partners are working aggressively to secure funding through the Federal Emergency Management Agency (FEMA) and other federal, state and non-government agencies to address this aging utility infrastructure.

These coastal and riverine resources also present a growing flood risk to the City of Everett. The Island End River and a portion of the Mystic River south of the DCR Amelia Earhart Dam are tidally influenced and experience storm surge effects from Boston Harbor in major storm events. Relatively flat topographic elevations in Everett and neighboring Chelsea also present overland pathways for coastal/saltwater flooding to impact areas deeper into the community. The Cities of Chelsea and Everett are working collaboratively under a Coastal Zone Management (CZM)-funded Coastal Resilience FY19 grant project at the Island End River to address district-wide flood protection that would provide physical barriers to these floodwaters while incorporating salt marsh restoration and the creation of public open space to reimagine this natural riverine resource.



Island End River Flood Projections (CZM FY19 Project)
Source: One Architecture and Woods Hole Group

Inland flooding can also be exasperated by blocked stormwater outfalls into these tidal rivers that surcharge the storm drainage systems and present pathways for saltwater to flow into inland areas. The City of Everett is proactively working to permit and install tide gate replacements for the stormwater outlets at Island End River to address this hazard. The Cities of Chelsea and Everett are also planning to work collaboratively to address upstream stormwater management issues in the adjacent Commercial Triangle area, including exploring ways to minimize impervious surfaces, promote groundwater infiltration, and detain stormwater to limit flooding.

The Malden River area is presently protected by the DCR Amelia Earhart Dam from most potential coastal flood incidents. However, sea level rise and increased storm intensity associated with climate change could lead to the flanking of the Dam by the 2050-time horizon. Additionally, high intensity and volume precipitation events in the upper Mystic River watershed pose riverine and inland flood risks to this area where the Madeline English School and other Everett community resources are located. The Madeline English School serves as the City's emergency dispensing site for the Health Department and faces growing flood risk at the facility.

Storage of hazardous materials, including a wide variety of petroleum-based fuels and industrial chemicals and refrigerants, in this flood prone area is a key hazard of concern throughout the region. On-going litigation against industrial users in this area has highlighted the public health and environmental exposure risks that these types of heavy industrial users could pose to the community in the event of a climate hazard. A heavy industrial presence along the banks of these rivers has also led to a legacy of environmental contamination in soil, water and air that has limited redevelopment of under-utilized sites and stressed the environmental justice communities throughout the Mystic and Malden River corridors.

Emergency Preparedness and Response – A Well-Prepared, Tight-Knit Community

Emergency preparedness and response operations are managed by an established and collaborative effort between the Police Department, Fire Department, and regional and state partners. The City of Everett has a well-defined and established operational procedure to prepare for the effects of natural hazards and associated response. Emergency preparedness and response systems in Everett consist of a variety of communication procedures that that have proven effective in past emergency situations. The community recognizes these systems may be adequate and effective, but agree that improvements to these systems may be both appropriate and necessary in the face of changing digital technology and climate-related hazards. Increased community use and awareness of Code Red system was mentioned as an important first step to reach more residents on a variety of electronic devices and continued diligence to provide language translation services to a diverse set of residents who speak over three dozen languages and dialects, but predominantly speak English, Spanish or Portuguese.

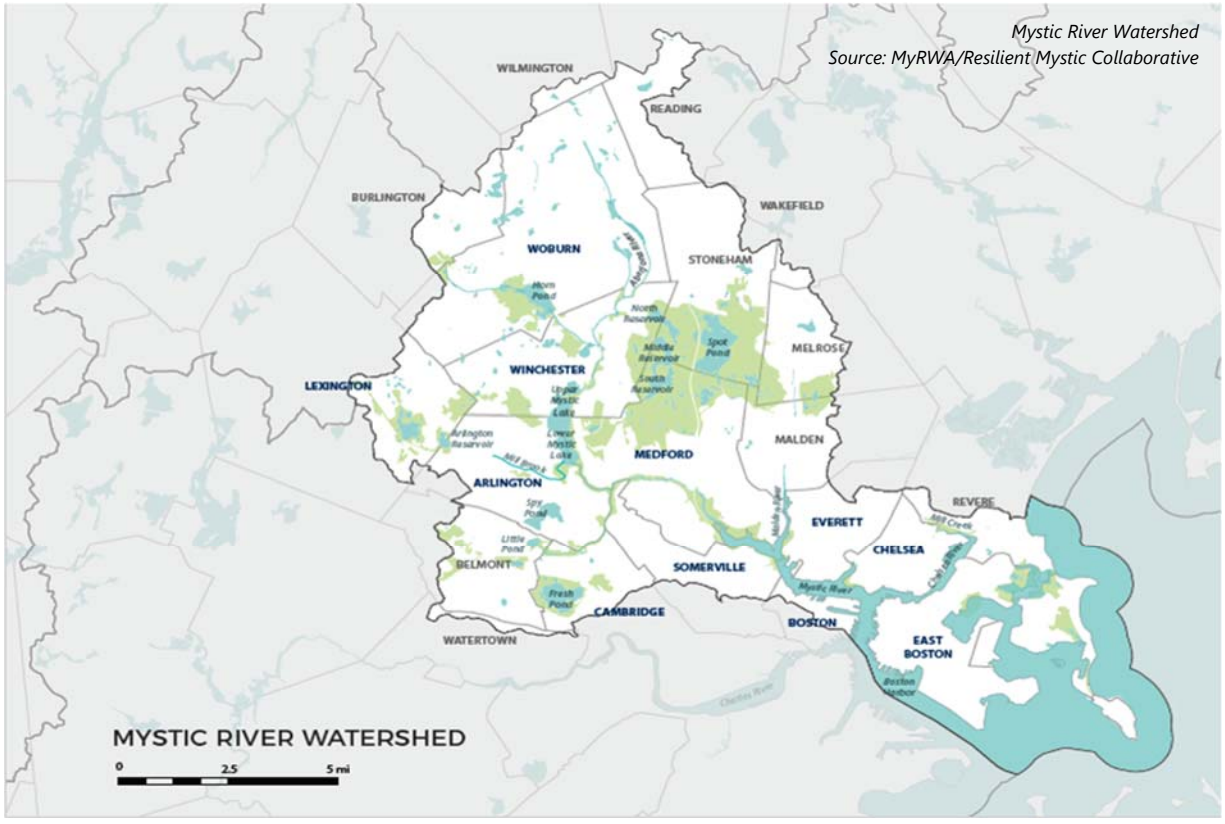
Regional Partnerships – Collaboration to Increase Climate Resilience

Everett and Chelsea are coastal Gateway Cities with a history of deferred investment in the maintenance of municipal infrastructure. These neighboring communities face the same growing challenges from climate change, including coastal and inland flooding and urban heat island effect. Both communities are also amid significant economic growth, including a major casino that opened

on June 23, 2019. With an opportunity to reinvest in municipal infrastructure and rethink historic patterns of development, a collaborative renewal effort between these communities could seek to address climate adaptation, environmental justice, and social resilience issues. Together, the cities of Chelsea and Everett are pursuing climate resiliency planning and adaptation measures to address coastal and inland flooding and urban heat island effect associated with climate change in collaborative projects such as the CZM Island End River Flood Protection project, the Urban Land Institute (ULI) "Living with Heat" charrette and other endeavors.

The City of Everett also has access to additional regional partnerships through their long history of support of the Mystic River Watershed Association (MyRWA) and recent involvement with their Resilient Mystic Collaborative initiative. Everett is now a member of Resilient Mystic's Lower Mystic Working Group, which meets regularly with Collaborative members from Somerville, Chelsea, Boston and other entities to discuss regional opportunities for increased climate change resilience.

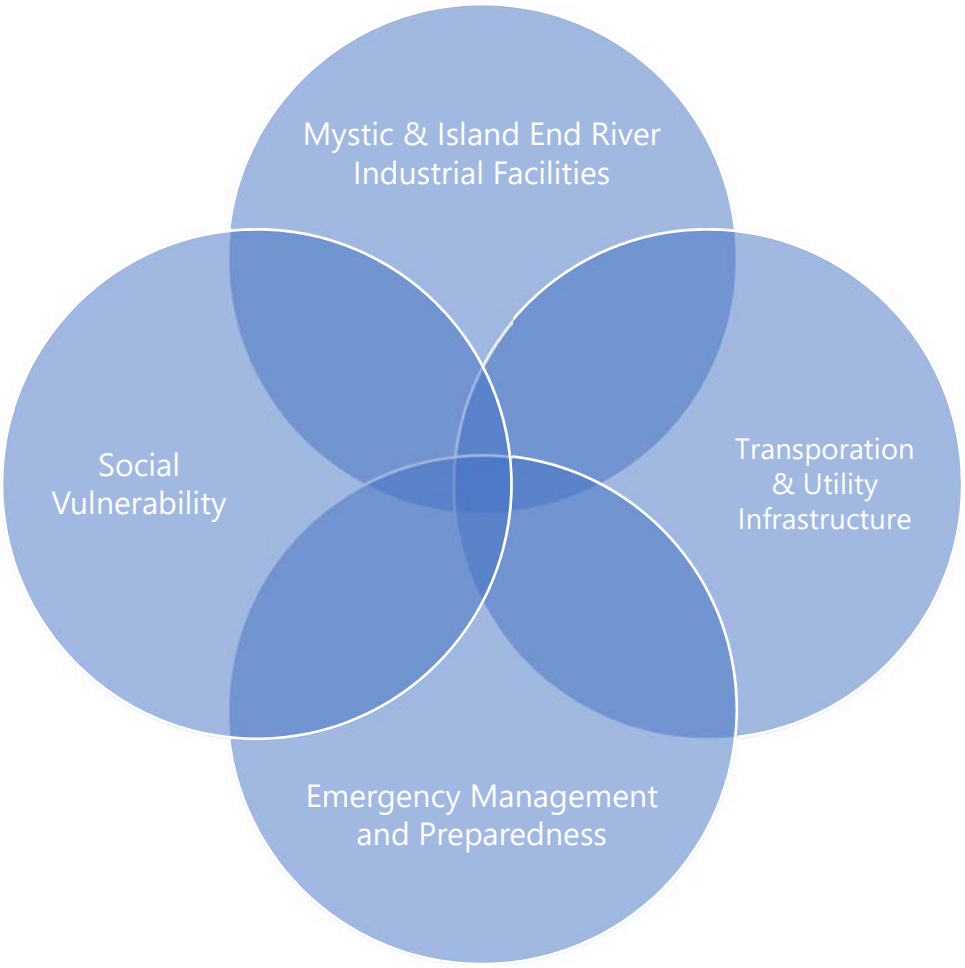
Resilient Mystic's Lower Mystic Working Group seeks to pursue grant funding opportunities to address flood protection and resilience for the lower tidal Mystic River communities and present a united front when addressing climate hazards. By working with these regional partners, Everett can stay informed about regional flood protection initiatives such as the increase in pump infrastructure at the DCR Amelia Earhart Dam. Involvement with the Resilient Mystic Collaborative also gives Everett access to knowledge sharing with Mystic River watershed communities that have a long history of climate planning and technical data resources such as Boston and Cambridge.



Mystic River Watershed
Source: MyRWA/Resilient Mystic Collaborative

CATEGORIZING CONCERNS AND CHALLENGES

Workshop participants used the CRB process to collaborative identify action-oriented solutions to address the climate vulnerabilities faced by the City of Everett. These actions are organized into four categories based on a combination of community characteristics (i.e. strengths and vulnerabilities) and solutions identified by workshop participants. During the workshops, an emphasis was placed on the interdependence of these categories that allowed for the development of climate resilience solutions that span infrastructural, societal, and environmental features. Through this lens, overlapping solutions that provide co-benefits were identified and prioritized.



Mystic & Island End River Industrial Facilities

Mystic River & Island End River Industrial Facilities

Designated Port Area

Fuel Storage – Gas & Oil Tanks Farms

Legacy Environmental Contamination

Metal Scrap Yards

New England Produce Ctr.

Storage of Hazardous Materials (Tier II Reporting Facilities)

Storage of hazardous materials that include a wide variety of petroleum-based fuels, industrial chemicals, and refrigerants in this flood prone area was mentioned by many workshop participants as the most serious vulnerability for the community. Emergency responders at the workshop identified the extensive trainings and coordination that City emergency management personnel engage in with the Tier II reporting facilities that store hazardous materials on site. It was noted that compliance with federal and state regulations governing the storage of hazardous materials is well-documented by the large-scale industrial uses, but that smaller industrial sites may be less well-regulated and prepared for hazards. Engaging with the Massachusetts Office of Technical Assistance (OTA) may be prudent to assist smaller facilities and more closely monitor and engage with all industrial users.

The public health and environmental exposure risks that these types of heavy industrial uses could pose to the community in the event of a climate hazard were extremely troubling to workshop participants. Large-scale flood protection barriers, such as the concepts being explored in the CZM Island End River flood protection project, were discussed by workshop participants, however these types of large-scale flood barrier projects face significant challenges to address rigorous permitting processes and regulatory barriers presented by historically restrictive measures in Designated Port Area (DPA) and Chapter 91 jurisdiction. Large-scale engineered flood projects also require access to land on/near the waterfront is limited in Everett. A collaborative operation and maintenance plan with private property owners/operators would also be needed. In the near term, deployable flood measures may be necessary to protect vulnerable assets along the Mystic and Island End Rivers. Many of the industrial uses in this vulnerable area are not easily relocated, however land swap options for non-water dependent users should be considered where feasible.

Stormwater improvements are also important to avoid inland flooding near critical assets and chemical storage areas. Much of the industrial land in these areas is served by private stormwater systems and requires continued coordination with the City to address operation and maintenance issues. A more collaborative approach to overall stormwater management may be warranted in this district.

Exelon – Mystic Generating Station
Source: City of Everett

Transportation & Utility Infrastructure

Transportation & Util. Infrastructure

Carbon Mitigation

Evacuation Routes

Multimodal Transportation

Transport/Parking Policy

Urban Heat Island Mitigation

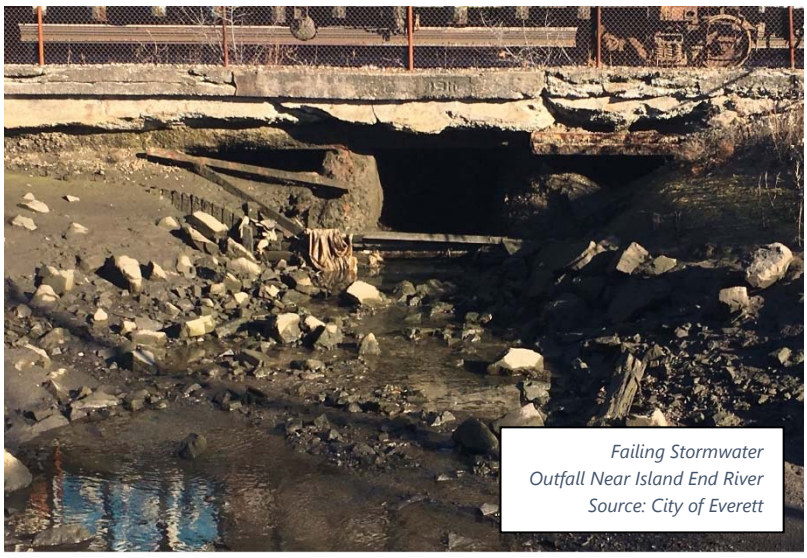
Combined Sewer Systems

Stormwater Management

Energy Infrastructure

A key planning feature identified by Workshop participants is the interdependent sources of vulnerability and strength that exist with the transportation and utility infrastructure within Everett. Incidents of inland flooding due to limited and/or under-sized storm drainage infrastructure are already reported on Route 16 and at the MBTA rail crossings at Second Street and Market Street - likely due to the intersection of coastal storm surge and significant stormwater flows from a large, mainly impervious surface cover watershed area. Workshop participants emphasized the need to coordinate with state agencies such as MassDOT and MBTA to mobilize projects in these locations while maintaining a focus on climate mitigation and adaptation efforts.

Areas of the city, such as the Second Street corridor in the Commercial Triangle, feature many dynamic commercial retail and industrial uses with regional impact, including the New England Produce Center and several metal scrap yards. The cumulative impact of these uses is significant impervious cover and the production of waste heat from idling trucks and HVAC equipment. This promotes urban heat island effect, which is discussed further in a supplemental report to this MVP Findings Report. This area of the city is also underserved by municipal storm drainage and is prone to inland flooding during high intensity storm events that generate large volumes of stormwater runoff from these mostly impervious parcels. Climate change presents numerous challenges to this area, including growing flood risk and increasing temperatures that will magnify the urban heat island effect and stress the energy grid as electrical consumption increases to cool these urban retail and industrial uses.



Failing Stormwater Outfall Near Island End River
Source: City of Everett

To mitigate climate change, workshop participants identified solutions such as promoting multimodal transportation (public transit, bicycle, walking) and green infrastructure options to address anticipated issues related to climate change. The need for the City of Everett to revisit its transportation and parking policies that limit the use of impervious surfaces where feasible was highlighted by participants using concepts like shared parking arrangements in business districts to maximize use of these amenities and limit potential for urban heat island effect.

Emergency Management and Preparedness

The City of Everett has an established community emergency management plan (CEMP) that municipal stakeholders feel adequately addresses the needs of the community in an emergency. The Police Department, Fire Department and their regional and state partners work in close coordination to implement emergency management and preparedness for the community. Current emergency management procedures include preparation, mitigation, response, and recovery actions, activation and operation of the Everett Emergency Communications system, activation and operation of shelters, and municipal emergency preparedness training. Workshop participants and facilitators were impressed by the participation of multiple members of the Everett Police and Fire Departments and their breadth of knowledge of emergency management and their willingness to educate participants and incorporate their expertise into this MVP process.

Participants also focused on the coordination of evacuation routes through neighboring communities. The City of Everett has clearly marked emergency/evacuation routes with blue light markers and signage throughout the city, but similar accomodations are not in place in neighboring communities. The City is currently working with the state Office of Emergency Management (OEM) on improved planning and implementation of these local evacuation routes. Identifying ways to address the lack of access to a personal vehicle or transit options during a potential City evacuation were also identified by workshop participants.

Emergency Management and Preparedness

Community Outreach

Evacuation Routes

Regional Coordination

Coordination with State Agencies

Emergency Dispensing Site

Coordination with CHA Everett Hospital & Home Health Aides

Emergency Shelter/Assembly Areas

The City has in place various systems to notify the community of important information (e.g. City website, social media, Code Red), but the community struggles to keep all members of the community engaged on these platforms, particularly vulnerable populations with limited English proficiency or transient. Participants felt strongly that continued investment and diversification of these resources was key to preparedness. Translation services and the need to constantly train emergency responders and others in the more than three dozen languages/dialects spoken in Everett is vital. Workshop participants felt that a partnership with neighboring communities and the school system could assist in these translation services by coordinating meet-ups to practice language skills. The need to improve the use of existing shelters/cooling centers that function during a storm event was also acknowledged. Specific programming to "make cooling centers cool" should be considered to increase use of these resources by the community. Increasing the number of shelters within the community was also emphasized and participants expressed a need to increase the awareness of these resources at a city-wide scale. Understanding the needs and limitations of socially vulnerable populations (e.g. elderly population, medically vulnerable population, non/limited English language speaking population) should also be explicitly addressed within future planning and programming efforts.

Social Vulnerability

Workshop participants expressed a diverse set of viewpoints pertaining to the need to address the considerations of socially vulnerable populations in response to the anticipated effects of climate change. Social vulnerability in Everett is characterized by elderly populations, economically stressed individuals/families, non/limited English language speakers, and undocumented residents. As such, stakeholders agreed that a central feature of climate adaptation planning within the community must ensure planning efforts do not reinforce existing sources of vulnerability. Participants agreed that future climate change planning should draw upon local resources such as the Council on Aging, CHA Everett Hospital, home health aides, social service agencies, and others, to increase Everett's capacity to address the needs of the most vulnerable, to improve communications with traditionally marginalized groups, and to provide appropriate levels of emergency management services based upon climate hazards. Community outreach and education initiatives were recommended and alignment with ongoing efforts to improve emergency management, response, and communication was identified as an opportunity to reach groups that may otherwise be neglected during hazard mitigation planning.

Social Vulnerability

Elderly Residents

Undocumented Resident

Bus Commuters

Non/Limited English Language Speakers

Economically Stressed Individuals

Medically Dependent Individuals

Community Outreach, Education & Preparedness

Shelters/Assembly Areas

Hospital Hill Area
Source: City of Everett

Climate Resilience Actions to address these concerns were prioritized through workshop activities and coordination with Core Team leadership. These Climate Resilience Actions are organized by High Priority, Medium Priority, and Low Priority Actions.

High Priority Actions

Category	Action
Infrastructure	Tier II Reporting Facilities/Storage of Hazardous Materials - Improve collaboration of emergency planning with these property owners and improve awareness of hazardous material storage around Everett. Consider engaging with Mass OTA where appropriate to provide technical assistance to industrial users who store hazardous materials. Review of toxic discharge/release potential and potential exposure levels to people and the environment, particularly the Mystic River.
	Market Street Culvert - Repair Market Street culvert failures & "Make Room for the River" - consider opportunities to daylight Island End River where feasible. Install tide gate at Island End River to prevent coastal flooding/surcharge into N.E. Produce Center/etc. & work with Chelsea to address on-going maintenance.
	Madeline English School/Emergency Dispensing Site – Evaluate large-scale flood protection options for site, including potential options for relocation of this use. Consider ways to disperse emergency dispensing sites throughout the community to add resilience to climate hazards.
	Municipal Roadways – Vale Street - Use potential redevelopment of the Wood Waste site and adjacent properties to redesign Vale Street with increased utility infrastructure capacity and other resilience measures.
	Municipal Roadways – Paris Street/Commercial Triangle - Use potential redevelopment in Commercial Triangle to redesign local roadways right-of-way with increased utility infrastructure capacity and other resilience measures. Identify flood storage opportunities in this district to address inland flooding risks.
	Municipal Roadways – Spring St/Vine St - Perform stormwater modeling with increased precipitation flows & intensity. Upgrade utility infrastructure in these corridors and incorporate green infrastructure where feasible. Identify flood storage opportunities in this district to address inland flooding risks.
	Municipal Infrastructure Sewer/Storm Drain/Water - Undertake a stormwater modeling effort to plan for stormwater upgrades based upon increased precipitation events associated with climate change. Continue to improve Everett's I&I policy to encourage stormwater infiltration. Coordinate stormwater improvement projects with coastal flood protection projects. Create a plan for green & grey infrastructure to address stormwater management and prevent flooding and water quality issues.
	DCR Amelia Earhart Dam - Work with Resilient Mystic Collaborative to pursue cont. improvements at Dam by DCR to avoid flanking of dam in 2050-time horizon. Participate in the Lower Mystic Working Group to monitor progress on this critical infrastructure & continue education on climate hazards.

Infrastructure	N.E. Produce Center- Continue to work with property owners to address flood risk - on-going engagement regarding proposed tide gate project. Consider options to work with private property owners and investors to redesign this vulnerable area. Develop conceptual plans to daylight portions of the Island End River that are currently culverted. Address trucking routes from this site to minimize potential disruption due to climate hazards. Engage in a region-wide planning effort to address hazard mitigation and food security issues associated with this site.
	Public Transit (MBTA) - Increase/enhance public transit opportunities through expansion of the Silver Line and relocation of the Chelsea Commuter Rail Station. Increase pedestrian/bike network to interconnect access to public transit hubs. Incorporate "transit only" spaces in road network to increase speed and convenience of bus transit options. Work with MBTA to address rail tracks that experience flood risk.
	Industrial Users - Work with property owners to increase awareness of climate hazards and preparedness/hazard mitigation options. Work on public-private partnerships to design permanent and/or deploy temporary flood protection measures. Consider engaging with Mass OTA where appropriate to provide technical assistance to industrial users who store hazardous materials.
	Regional Partnerships - Partnerships with City of Chelsea and MyRWA/Resilient Mystic Collaborative should be strengthened through continued collaboration on climate preparedness and adaptation projects. Partnerships with other regional partners such as City of Malden and City of Boston should be explored.
Environmental	Coastal/Tidal Rivers - Evaluate large-scale flood protection options for Island End River to address significant coastal flooding risk associated with climate change that limits an area of potential economic development. Work with Resilient Mystic Collaborative to pursue regional hazard mitigation options.
	Malden River - Evaluate need for flood protection measures/barriers along the Malden River. Address stormwater management and quality issues in the Malden River floodplain/sub catchment areas, including impact of legacy environmental soil/water contamination. Consider options for open space and public access along the Malden River.

Medium Priority Actions

Category	Action
Infrastructure	Municipal Bldgs. & Parks – Police Station & Glendale Park -Decentralize stormwater management detention in this area to intercept stormwater in other parts of the watershed to minimize potential for flooding at police station and Glendale Park. Use Glendale Park and other municipal assets as public education opportunities and replace existing infrastructure with green infrastructure, such as pervious pavements, rain gardens, etc., when renovations to these assets are planned.
	Evacuation Routes – Local - Consider resident access to transportation options during evacuations to understand community needs. Work with adjacent communities and state to understand how their local evacuation plans intersect with Everett's evacuation plans. Emergency response plan should be reviewed with projected flood maps to identify areas of the City, particularly Island End area/Commercial Triangle where access for emergency response may be limited. Decentralize municipal emergency response assets.
	Exelon Mystic Station (a.k.a. Mystic Generating Station) - Work with property owner to increase awareness of climate hazards and preparedness/hazard mitigation options. Consider engaging with Mass OTA where appropriate to provide technical assistance to industrial users who store hazardous materials.
	Heavily Utilized Arterial Roadways – Rte. 16/Rte. 99- Review coastal flood pathway data and identify areas where roadways should be elevated or flood mitigation/stormwater projects are necessary. Work with MassDOT to address vulnerable state-owned roadway areas.
	Entertainment Industry – Casino, Hotels, etc.- Partner with Encore Boston Harbor to address 2070 flood pathways into Everett near facility and evaluate flood protection measures for adjacent infrastructure and supporting uses to the casino.
	Utility Infrastructure - Energy - Strong municipal relationship with utility company representatives. Significant energy utility infrastructure is in flood prone areas of the city. Work with utility company representatives to understand their climate-ready planning and partner on flood protection projects.
	Gateway Center- Work with property owner to address legacy environmental soil/water contamination issues on this site. Work with property owner to incorporate stormwater detention/infiltration and minimize impervious surface areas where feasible. Work with property owner to address adjacent flood pathways into Everett.

Infrastructure	Parking & Transportation Policy - Develop comprehensive policy to judicially use impervious surfaces in city right-of-way areas by limiting parking, promoting pedestrian, bicycle and transit use activity, incorporating street trees and green infrastructure. Promote shared parking agreements on private commercial properties. Work with City of Chelsea to design cool corridors such as Second Street area to address heat hazards and promote pedestrian/bicycle/transit use in major corridors of the City.
	Alternative Transportation – Bikes, Pedestrians, etc.- Develop protected cool corridors that encourage bicycling and walking by enhancing street trees, implementing green infrastructure, using permeable paving materials and other resilient strategies in areas such as Second Street. Incorporate cooling strategies into master plan for City bike network. Work with MyRWA on expansion of Mystic River greenway and connectivity to adjacent communities.
Social	Emergency Management Resources - Work with new residential developments to discuss emergency preparedness and evacuation plan measures (particularly as new housing moves into industrial areas). Utilize assets such as deep-water ports & hotels to support emergency response efforts as needed. Implement more climate hazard-specific emergency preparedness trainings for both municipal staff and residents. Increase awareness & use of Code Red system.
	Communications - Constant translation services training and awareness of languages/dialects used by Everett residents is required to provide emergency services. Consider more translation seminars through the high school/school dept. to share language skills and broaden community outreach. New development projects should require a repeater station (more resilient to cell network loss). Invest in emergency management technology. Develop/purchase an app to connect municipal staff and share city-wide knowledge.
	Vulnerable Population – Limited English Language Skills, Undocumented Residents, etc. -Translation services are excellent, but constant training and awareness of languages/dialects used by Everett residents is required to provide emergency services. Consider more translation seminars through the high school/school dept. to share language skills and broaden community outreach.
	Residential & Commercial Development - Update zoning ordinances & regulations to promote climate resilience. Require/incentive green infrastructure (green roofs, rain gardens, etc.). Identify potential for public-private partnerships to mitigate climate risks. Evaluate economic impact of climate on job disruption and business losses due to climate hazards. Develop a climate checklist for permitting and update Floodplain Overlay District requirements.
	Municipal Staffing, etc. - Over-extended municipal staff and the City is very reliant on regional services/manpower for mutual aid leave Everett vulnerable to a significant storm event or extended period of heat or flooding. Proximity to Boston is a benefit to continue to expand on where state agencies can provide support on climate hazard mitigation and adaptation initiatives.

Social	Older housing stock/Overcrowding - Educate residents on building retrofit opportunities and state incentives for building energy upgrades. Encourage development of additional affordable housing stock and down-sizing options for seniors. Increase code enforcement on illegal apartments and building and health code violations.
	CHA Everett Hospital - Improve communications between City & hospital (public safety hotline, multiple methods of communications (e-mail/internet/phone call/text/physical beacons, markers or alarms/etc.). Form working group with hospital and City to discuss emergency management and public health. Address access challenges to this site - steep roadways/walkways and lack of shaded areas for pedestrians.
	Vulnerable Population – Seniors - Work on strategies to reach isolated seniors such as an "Adopt-a-Grandparent" program or neighborhood check-ins. Develop program for seniors living alone to register with Everett Fire Department, as well as Council-on-Aging. Educate Everett's strong faith-based community groups on climate hazards. Train home health aides to recognize climate hazards and needs of this vulnerable population.
	Vulnerable Population – Medically Dependent - Increase communications with social service providers and CHA Everett Hospital to aid medically dependent residents. Improve alert system to include social service providers.
	Social Resilience - Work with community leaders to spread climate hazard and adaptation knowledge further into the community. Incorporate additional climate education opportunities into community events like Annual Spring Clean Up Event and others.
	Business Community - Partner with Chamber of Commerce to further engage with business community. Explore public-private partnerships to further climate adaptation strategies and implementation, particularly in Island End and Commercial Triangle areas.
	Vulnerable Population – Economically Stressed - Work with adjacent cities and towns to coordinate additional permanent housing shelters. Work with social service providers to understand the community needs and improve communications prior to hazard events. Educate Everett's strong faith-based community groups on climate hazards.
	Public Education - Lack of knowledge of climate impacts throughout the community should be addressed, particularly related to the importance of green space and the public health impacts of heat exposure. Work with Everett School system to teach youth about climate hazards and adaptations.

Environmental	Open Space - Continue to pursue ways to increase amount of open space, particularly pervious, vegetated open space in the City of Everett, including acquisition of property. Purse open space restoration projects, such as addressing erosion and restoring riverbanks near Gateway Center and River Green. Consider options for splash pads, public pools and misting stations to address heat hazards.
	Trees - Prepare a community-wide assessment of municipal trees for health, location, quantity, etc. Develop comprehensive tree planting plan and strategy. Perform a community-wide analysis of opportunities for the use of green infrastructure throughout Everett. Consider use of living walls, parklets, tree pits, etc. Identify a maintenance program/partnership for green infrastructure and street trees.

Low Priority Actions

Category	Action
Infrastructure	Municipal Bldgs. & Parks - Emergency generators access at municipal facilities should be reviewed and enhanced as needed.
	Everett Armory/Connelly - Evaluate other shelter/cooling center options in Everett and regionally. Enhance options & programming at the Connelly Center to promote use by residents.
	Renewable Energy (Solar/Wind) - City of Everett has signed an agreement to purchase municipal energy/electricity from renewable sources. Identify locations in the City that could host solar canopies & work with state/private entities to provide incentives to private property owners to site these facilities.
Societal	Vulnerable Populations – Pets/Service Animals Residents who own pets may be more resistant to evacuation, so sheltering options should include options for pet evacuations and boarding during/following storm events.

Community Workshop Participants

Name	Affiliation
Ed Mastrocola	E-911
Emma DeSimone	Boston OEM – MBHSR
Tony O'Brien	Everett Fire Department
Elaine Silva	Everett Health Department
Sabrina Torra	Everett Health Department
Tony Carli	Everett Fire Department
Jon Norton	Everett Conservation Commission – Chair
Dennis Gooding	Everett Inspectional Services Dept (ISD)
Gregory St. Louis	Everett DPW/Engineering
Ernie Lariviere	Everett Water Department
Katie Moniz	BSC Group
Michael Imbornone	Everett Fire Department
Kaitlyn Rimol	BSC Group
Maria Josefson	Everett Planning Department
Rachel Kelly	Everett Planning Department
Paul Hamilton	Everett Police Department
Gillian Davies	BSC Group
Brian Cullinan	BSC Group
Julie Wormser	MyRWA/Resilient Mystic Collaborative
Dalia Munenzon	One Architecture
Jeff Malloy	BSC Group
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Tom Martin	Business Owner - Middlesex Gases
Ben Cares	City of Chelsea Planning Department
Alex Train	City of Chelsea Planning Department
Tony Sousa	Everett Planning Department

Citation

Everett (2019) Community Resilience Building Workshop Summary of Findings, BSC Group, Inc., and City of Everett, Everett, Massachusetts

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Acknowledgements

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Thank you to Mayor Carlo DeMaria for his support of the Everett Municipal Vulnerability Preparedness (MVP) program and CRB Workshop. His support of this process was an inspiration to the community and reaffirmed the City's commitment to continued climate resilience planning and adaptation measures.

Thank you to the community leaders within Everett who attended the Everett CRB Workshop, Public Listening Session and other core team meetings. The institutional knowledge provided by workshop participants was essential to the success of this process.

Thank you to the City of Chelsea for their collaborative support and participation on this project and other resilience initiatives that cross community boundaries. Both communities benefit from this teamwork and leadership on climate resilience planning and adaptation measures by their City leaders.

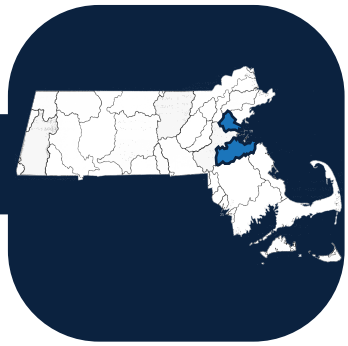
Thank you to Julie Wormser of Mystic River Watershed Association (MyRWA)/Resilient Mystic Collaborative and Patrick Herron of Mystic River Watershed Association (MyRWA) for their support and participation in this process. MyRWA continues to lead on environmental and resilience initiatives throughout the watershed and their partnership is truly appreciated.

CLIMATE CHANGE INFOGRAPHIC

CLIMATE CHANGE

Everett, Massachusetts
Boston Harbor Basin

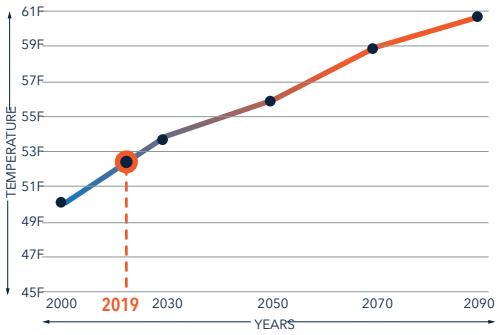
Abington, Arlington, Avon, Belmont, Boston, Braintree, Brockton, Burlington, Cambridge, Canton, Chelsea, Cohasset, Dedham, Dover, Everett, Foxborough, Hingham, Holbrook, Hull, Lexington, Malden, Melrose, Medfield, Medford, Milton, Norwell, Norwood, Quincy, Randolph, Reading, Revere, Rockland, Sharon, Somerville, Stoneham, Stoughton, Wakefield, Walpole, Watertown, Westwood, Weymouth, Wilmington, Winchester, Winthrop, and Woburn



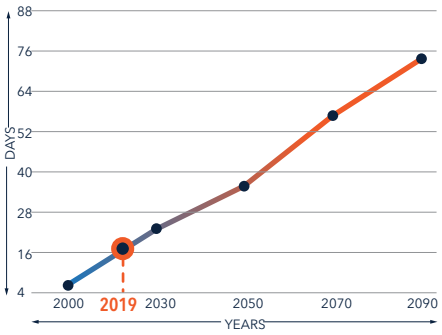
Global warming is caused by the accumulation of greenhouse gases within the atmosphere. Gases that contribute to the greenhouse effect include water vapor, carbon dioxide, methane, and nitrous oxide. On earth, human activities such as burning fossil fuels, land deforestation and wetland loss/conversion have altered the delicate balance of atmospheric conditions that regulate our climate. The effect of these changes cause global climate change that are likely to be significant and to increase over time.

EXTREME TEMPERATURES

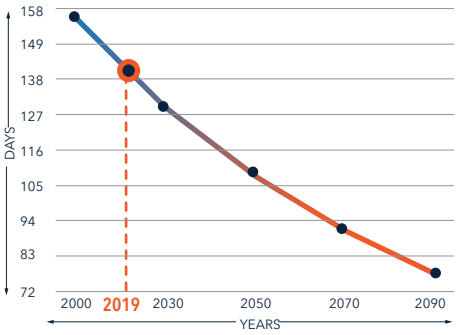
Average Temperatures



Days with Maximum Temperature over 90˚F



Fewer Days Below Freezing

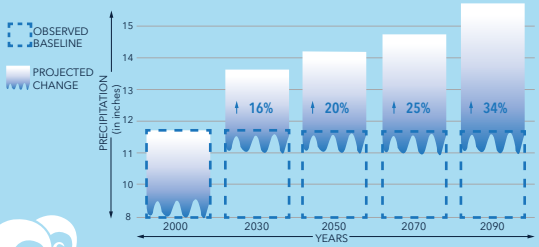


What can EVERETT expect as CLIMATE CHANGES?

Climate change has already had observable effects on the environment. Rising temperatures, changes in precipitation patterns, droughts and heat waves, sea-level rise, and extreme storm events have **altered the distribution of risk and how resources are managed.**

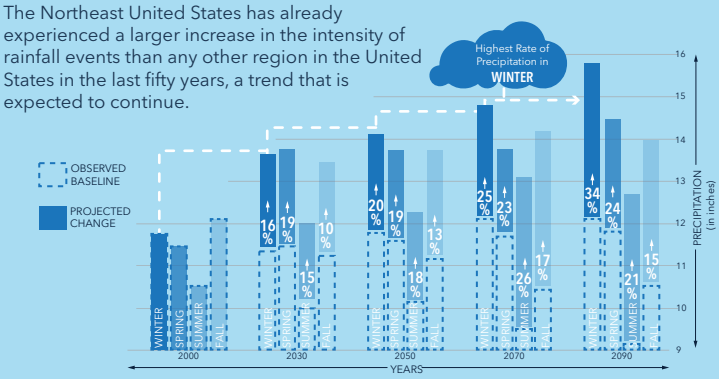
Extreme Snow And Ice Events

Total Annual Precipitation is expected to increase within the Boston Harbor Basin over the remainder of the century. Most of this increase is expected to occur during winter months where precipitation will fall as either rainfall or extreme snow or ice events.



More Annual Precipitation and Inland Flooding

The Northeast United States has already experienced a larger increase in the intensity of rainfall events than any other region in the United States in the last fifty years, a trend that is expected to continue.

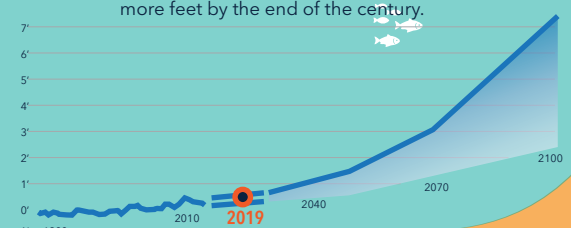


Blizzards, Nor'Easters and Hurricanes

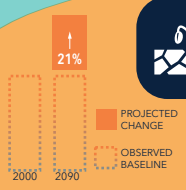
Storm events fueled by higher temperatures, increased evaporation, and atmospheric moisture leads to stormy weather of increased duration and intensity.

Sea level Rise

Sea levels are rising as the oceans warm, ice melts and water expands. Sea levels have already risen about a foot and could rise several more feet by the end of the century.



Drought Conditions



Due to the combined effects of higher temperatures, reduced groundwater recharge from extreme precipitation events, earlier snowmelt, summer and fall droughts may become more frequent.

Heatwaves

Extreme heat events are expected to become more frequent and intense. Socially vulnerable populations are particularly vulnerable to the dangers related to extreme temperature conditions.

Sources: Massachusetts Executive Office of Energy and Environmental Affairs; ResilientMA.org

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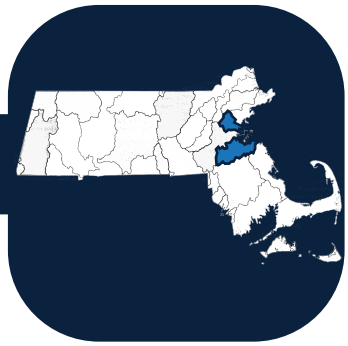
Cambio Climático

Everett, Massachusetts
Boston Harbor Basin

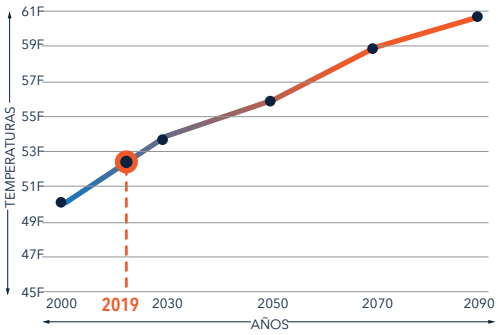
Abington, Arlington, Avon, Belmont, Boston, Braintree, Brockton, Burlington, Cambridge, Canton, Chelsea, Cohasset, Dedham, Dover, Everett, Foxborough, Hingham, Holbrook, Hull, Lexington, Malden, Melrose, Medfield, Medford, Milton, Norwell, Norwood, Quincy, Randolph, Reading, Revere, Rockland, Sharon, Somerville, Stoneham, Stoughton, Wakefield, Walpole, Watertown, Westwood, Weymouth, Wilmington, Winchester, Winthrop, and Woburn



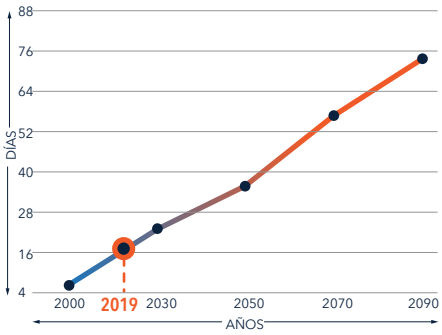
El calentamiento global lo provoca principalmente la acumulacion de los gases de efecto invernadero en la atmósfera. Los gases que contribuyen al efecto invernadero incluyen el vapor de agua, el dióxido de carbono, el metano, y el óxido nitroso. En el planeta tierra, la actividad humana como la quema de combustibles fósiles, la desforestación, y la perdida o alteración de humedales han cambiado el balance delicado de las condiciones atmosféricas que regulan nuestro clima. Los efectos producidos por los humanos causan cambio climático global que probablemente serán significante y aumetarán con el tiempo.

TEMPERATURAS EXTREMAS

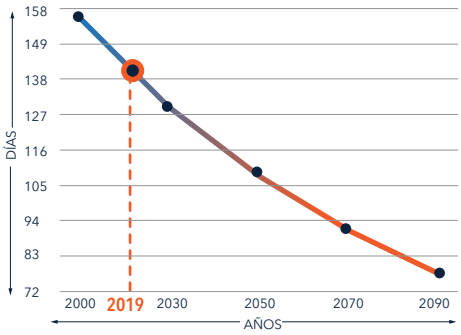
Temperaturas Promedio



Días con temperaturas máximas sobre 90F/ 32C



Reduccion de Dias bajo cero

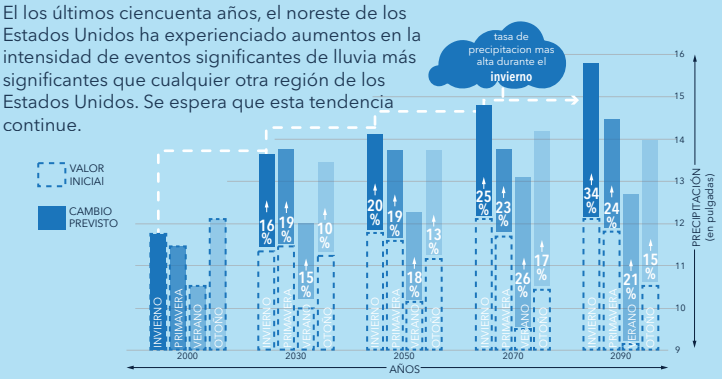


¿ Qué Podemos esperar en términos de CAMBIOS CLIMATICOS en EVERETT?

El cambio climatico ya esta afectando el ambiente. Aumentos de la temperatura, cambios en los patrones de pecipitación, sequias y olas de calor, aumentos en el nivel del mar, y las tormentas extremas han cambiado la distribución de riesgo y la manera de manejar recursos.

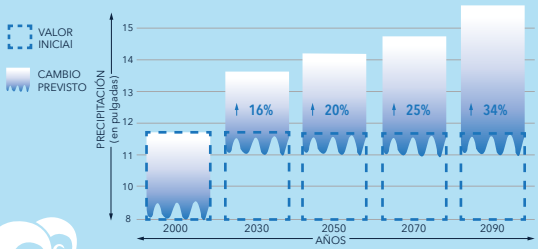
Inundaciones y Aumentos de Precipitación Anual

El los últimos ciencuenta años, el noreste de los Estados Unidos ha experienciado aumentos en la intensidad de eventos significantes de lluvia más significantes que cualquier otra región de los Estados Unidos. Se espera que esta tendencia continue.



Eventos extremos de nieve y hielo

En la Dársena del Puerto de Boston se espera que la precipitación anual aumente por lo que queda del siglo. La mayoría del aumento en precipitación se espera durante los meses de invierno en forma de lluvia o eventos extremos de nieve y hielo.



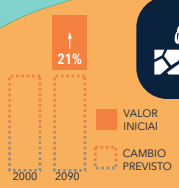
Tormentas de Nieve, Tormentas "Noreaster" y Huracanes

Las tormentas impulsadas por altas temperaturas, aumentos de evaporación, y humedad atmosférica son mas intensas y duran más tiempo que otras tormentas.

Aumento del Nivel Del Mar

La temperatura del oceano se está calentando, los glaciales se estan derritiendo y, como resultado, los niveles del mar estan aumentando, alrededor de un pie. Se espera que el nivel del mar aumente un pie adicional al final del siglo.

Tiempos de Sequía



A causa de los cambios de temperatura, la reducción en la recarga de los acuíferos durante eventos de precipitación, y el deshielo adelantado, la sequía del verano y el otoño estan ocurriendo con más frecuencia.

Olas de Calor

Se espera que los eventos de temperatura extrema ocurran con mas frecuencia y sean mas intensos. Los segmentos de la población con vulnerabilidades serán más propensos a los peligros asociados con temperaturas extremas.

Fuentes: Massachusetts Executive Office of Energy and Environmental Affairs; ResilientMA.org

BSC GROUP

COMMUNITY RESILIENCE BUILDING MATRIX

Community Resilience Building Risk Matrix

www.CommunityResilienceBuilding.org

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

1 - Coastal Flooding (Sea Level Rise/Storm Surge)	2- Inland Flooding (due to Precipitation/Storm Event)	3- Heat Wave	4- Extreme Storms

	Vulnerabilities (V) and/or Strengths (S)	V / S	Location	Owner	Solutions	Top Priority Hazard #	Infrastructural	Societal	Environmental	Hight, Medium or Low priority for action over the Short or Long term and Ongoing	
						#				H/M/L	S/L/O
1	Tier II Reporting Facilities/Storage of Hazardous Materials	V	city-wide, but concentrated near Mystic River/Island End River	private	Improve collaboration of emergency planning with these property owners and improve awareness of hazardous material storage around Everett. Consider engaging with Mass OTA where appropriate to provide technical assistance to industrial users who store hazardous materials. Review of toxic discharge/release potential and potential exposure levels to people and the environment, particularly the Mystic River.	1-2-3-4	X	X	X	H	S/L/O
2	Market Street Culvert	V	Market Street near Island End River	Multi-Party Use/Resp.	Pursue grant opportunities and public-private partnerships, as well as work with state agencies and abutters, to repair Market Street culvert failures and "Make Room for the River" - consider opportunities to daylight Island End River where feasible. Install tide gate at Island End River to prevent coastal flooding/surcharge into New England Produce Center/etc. and work with City of Chelsea to address on-going maintenance.	1&2	X			H	S
3	Madeline English School (Emergency Dispensing Site)	V/S	105 Woodville Street (near Malden River)	City of Everett	Evaluate large-scale flood protection options for site , including potential options for relocation of this use. Consider ways to disperse emergency dispensing sites throughout the community to add resilience to climate hazards.	1-2-4	X			H	S
4	Municipal Roadways - Vale Street area near Wood Waste site	V	Vale Street	City of Everet	Vale Street is known flood risk and prone to flash flooding. Both communities currently send police details to close the road in advance of storm events. Use potential redevelopment of the Wood Waste site and adjacent properties to redesign Vale Street with increased utility infrastructure capacity and other resilience measures.	2-4	X			H	S
5	Municipal Roadways - Paris Street area/Commercial Triangle	V	Paris Street/Commercial Triangle	City of Everet	Use potential redevelopment in Commercial Triangle to redesign local roadways and right-of-ways with increased utility infrastructure capacity and other resilience measures. Identify flood storage opportunities in this district to address inland flooding risks.	2-4	X			H	S
6	Municipal Roadways - Spring Street & Vine Street	V	Spring Street & Vine Street	City of Everet	Perform stormwater modeling with increased precipitation flows & intensity. Upgrade utility infrastructure in these corridors and incorporate green infrastructure where feasible. Identify flood storage opportunities in this district to address inland flooding risks.	1-2-4	X			H	S
7	Municipal Infrastructure - Sewer/Storm Drain/Water	V	city-wide	City of Everett	Undertake a stormwater modeling effort to plan for stormwater upgrades based upon increased precipitation events associated with climate change. Continue to improve Everett's I&I policy to encourage stormwater infiltration. Coordinate stormwater improvement projects with coastal flood protection projects. Create a plan for green & grey infrastructure to address stormwater management and prevent flooding and water quality issues.	1-2-4	X			H	L/O

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						#				H/M/L	S/L/O
8	DCR Amelia Earhart Dam	V	Mystic River	DCR	Work with Resilient Mystic Collaborative to pursue continued improvements at Dam by DCR to avoid flanking of dam in 2050-time horizon. Participate in the Resilient Mystic Collaborative Lower Mystic Working Group to monitor progress on this critical infrastructure and continue education on climate hazards.	1	X			H	L/O
9	Commercial/Employment Center - N.E. Produce Center	V/S	adjacent to Island End River	private	Continue to work with property owners to address flood risk - on-going engagement regarding proposed tide gate project. Consider options to work with private property owners and investors to redesign this vulnerable area. Develop conceptual plans to daylight portions of the Island End River that are currently culverted. Address trucking routes from this site to minimize potential disruption due to climate hazards. Engage in a region-wide planning effort to address hazard mitigation and food security issues associated with this site.	1	X			H	L/O
10	Public Transit - MBTA (Regional bus service)	V/S	city-wide	MBTA	Increase/enhance public transit opportunities through expansion of the Silver Line and relocation of the Chelsea Commuter Rail Station. Increase pedestrian/bike network to interconnect access to public transit hubs. Incorporate "transit only" spaces in road network to increase speed and convenience of bus transit options. Work with MBTA to address rail tracks that experience flood risk.	1-2-3-4	X			H	L/O
11	Industrial properties/sites (gas tanks, fuel and chemical storage, metal scrap yards, etc.)	V	near Mystic River/Island End River	private	Work with property owners to increase awareness of climate hazards and preparedness/hazard mitigation options. Work on public-private partnerships to design permanent and/or deploy temporary flood protection measures. Consider engaging with Mass OTA where appropriate to provide technical assistance to industrial users who store hazardous materials.	1-4	X			H	L/O
12	Regional Partnerships	S	region-wide	Co	Partnerships with City of Chelsea and MyRWA/Resilient Mystic Collaborative should be strengthened through continued collaboration on climate preparedness and adaptation projects. Partnerships with other regional partners such as City of Malden and City of Boston should be explored.	1-2-3-4		X		H	O
13	Coastal/Tidal Rivers	V/S	Mystic River/Island End River	public	Evaluate large-scale flood protection options for Island End River to address significant coastal flooding risk associated with climate change that limits an area of potential economic development. Work with Resilient Mystic Collaborative to pursue regional hazard mitigation options.	1&4			X	H	O
14	Malden River	V	Malden River	public	Evaluate need for flood protection measures/barriers along the Malden River. Address stormwater management and quality issues in the Malden River floodplain/sub catchment areas, including impact of legacy environmental soil/water contamination. Consider options for open space and public access along the Malden River.	1-2-4			X	H	L/O

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						#				H/M/L	S/L/O
15	Municipal Buildings & Parks - Police Station & Glendale Park	V	45 Elm Street	City of Everett	Flooding incidents at the police station need to be addressed. Decentralize stormwater management detention in this area to intercept stormwater in other parts of the watershed to minimize potential for flooding at police station and Glendale Park. Use Glendale Park and other municipal assets as public education opportunities and replace existing infrastructure with green infrastructure, such as pervious pavements, rain gardens, etc., when renovations to these assets are planned.	2&4	X			M	S
16	Evacuation Routes - Local	V/S	city-wide	public	Consider resident access to transportation options during evacuations to understand community needs. Work with adjacent communities and state to understand how their local evacuation plans intersect with Everett's evacuation plans. Emergency response plan should be reviewed with projected flood maps to identify areas of the City, particularly Island End area/Commercial Triangle where access for emergency response may be limited. Decentralize municipal emergency response assets throughout the City.	1&2	X			M	S
17	Exelon Mystic Station (a.k.a Mystic Generating Station)	V	adjacent to Mystic River	Exelon Power	Work with property owner to increase awareness of climate hazards and preparedness/hazard mitigation options. Consider engaging with Mass OTA where appropriate to provide technical assistance to industrial users who store hazardous materials.	1-4	X			M	L/O
18	Heavily Utilitized Arterial Roadways (Rte 16 - Revere Beach Parkway/Route 99, etc.)	V	city-wide	City of Everett/ MassDOT	Review coastal flood pathway data and identify areas where roadways should be elevated or flood mitigation/stormwater projects are necessary. Work with MassDOT to address vulnerable state-owned roadway areas.	1-2-4	X			M	L/O
19	Entertainment Industry - Casino, Hotels, etc.	S	adjacent to Mystic River	private	Partner with Encore Boston Harbor to address 2070 flood pathways into Everett near facility and evaluate flood protection measures for adjacent infrastructure and supporting uses to the casino.	1-4	X			M	L/O
20	Utility Infrastructure - Energy Utilities	V/S	city-wide	investor-owned utilities	Strong municipal relationship with utility company representatives. Significant energy utility infrastructure is in flood prone areas of the city. Work with utility company representatives to understand their climate-ready planning and partner on flood protection projects.	1-2-3-4	X			M	L/O
21	Gateway Center (Costco/Target/Home Depot/etc.)	V	Gateway Center	private	Work with property owner to address legacy environmental soil/water contamination issues on this site. Work with property owner to incorporate stormwater detention/infiltration and minimize impervious surface areas where feasible. Work with property owner to address adjacent flood pathways into Everett.	1-2-3-4	X			M	L/O

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						#				H/M/L	S/L/O
22	Parking & Transportation Policy	V	city-wide	City of Everett	Develop comprehensive policy to judicially use impervious surfaces in city right-of-way areas by limiting parking, promoting pedestrian, bicycle and transit use activity, incorporating street trees and green infrastructure. Promote shared parking agreements on private commercial properties. Work with City of Chelsea to design cool corridors such as Second Street area to address heat hazards and promote pedestrian/bicycle/transit use in major corridors of the City.	3	X			M	O
23	Alternative Transportation - Bikes, Pedestrians, etc.	S	city-wide	public/ private	Develop protected cool corridors that encourage bicycling and walking by enhancing street trees, implementing green infrastructure, using permeable paving materials and other resilient strategies in areas such as Second Street. Incorporate cooling strategies into master plan for City bike network. Work with MyRWA on expansion of Mystic River greenway and connectivity to adjacent communities.	2&3	X			M	O
24	Vulnerable Population - Limited English Language Skills, Undocumented Residents, and others	V	city-wide	N/A	Translation services are excellent, but constant training and awareness of languages/dialects used by Everett residents is required to provide emergency services. Consider more translation seminars through the high school/school dept to share language skills and broaden community outreach.	1-2-3-4		X		M	S
25	Residential & Commerical Development	V/S	city-wide	private	Update zoning ordinances & regulations to promote climate resilience. Require/incentive green infrastructure (green roofs, rain gardens, etc.). Identify potential for public-private partnerships to mitigate climate risks. Evaluate economic impact of climate on job disruption and business losses due to climate hazards. Develop a climate checklist for permitting and update Floodplain Overlay District requirements.	1-2		X		M	S
26	Municipal Staffing/Finances/Resources/ Infrastructure Recordkeeping/GIS/etc.	V/S	city-wide	City of Everett	Over-extended municipal staff and the City is very reliant on regional services/manpower for mutual aid leave Everett vulnerable to a significant storm event or extended period of heat or flooding. Proximity to Boston is a benefit to continue to expand on where state agencies can provide support on climate hazard mitigation and adaptation initiatives.	1-2-3-4		X		M	S
27	Older housing stock (lack of HVAC, building envelope/roof/insulation issues, etc.) and Overcrowding (illegal/basement apartments)	V	city-wide	private	Educate residents on building retrofit opportunities and state incentives for building energy upgrades. Encourage development of additional affordable housing stock and down-sizing options for seniors. Increase code enforcement on illegal apartments and building and health code violations.	3&4		X		M	L

Community Resilience Building Risk Matrix

www.CommunityResilienceBuilding.org

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

1 - Coastal Flooding (Sea Level Rise/Storm Surge)	2- Inland Flooding (due to Precipitation/Storm Event)	3- Heat Wave	4- Extreme Storms

	Vulnerabilities (V) and/or Strengths (S)	V / S	Location	Owner	Solutions	Top Priority Hazard #	Infrastructural	Societal	Environmental	Hight, Medium or Low priority for action over the Short or Long term and Ongoing	
						#				H/M/L	S/L/O
28	CHA Everett Hospital	S	Hospital Hill	CHA	Improve communications between City & hospital (public safety hotline, multiple methods of communications (e-mail/internet/phone call/text/physical beacons, markers or alarms/etc.). Form working group with hospital and City to discuss emergency management and public health. Address access challenges to this site - steep roadways/walkways and lack of shaded areas for pedestrians.	3-4		X		M	O
29	Strong/Well-Trained Emergency Management Resources	S	City of Everett/state	City of Everett/State of Massachusetts	Work with new residential developments to discuss emergency preparedness and evacuation plan measures (particularly as new housing moves into industrial areas). Utilize assets such as deep-water ports & hotels to support emergency response efforts as needed. Implement more climate hazard-specific emergency preparedness trainings for both municipal staff and residents. Increase awareness & use of Code Red system.	1-2-3-4		X		M	O
30	Communications (Translation Services/Reverse 911/311/Physical Markers - Blue Emergency Lights/School Outreach/Neighborhood Relations/ etc.)	S	City of Everett	City of Everett	Translation services are excellent, but constant training and awareness of languages/dialects used by Everett residents is required to provide emergency services. Consider more translation seminars through the high school/school dept to share language skills and broaden community outreach. New development projects should require a repeater station (more resilient to cell network loss). Invest in emergency management technology. Develop/purchase an app to connect municipal staff and share city-wide knowledge.	1-2-3-4		X		M	O
31	Vulnerable Population - Growing number of Seniors (65 yrs of age and older)	V	city-wide	N/A	Work on strategies to reach isolated seniors such as an "Adopt-a-Grandparent" program or neighborhood check-ins. Develop program for seniors living alone to register with Everett Fire Department, as well as Council-on-Aging. Educate Everett's strong faith-based community groups on climate hazards. Train home health aides to recognize climate hazards and needs of this vulnerable population.	1-2-3-4		X		M	O
32	Vulnerable Population - Medically Dependent Residents	V	city-wide	N/A	Increase communications with social service providers and CHA Everett Hospital to aid medically dependent residents. Improve alert system to include social service providers.	3&4		X		M	O
33	Social Resilience (close knit community)	S	city-wide	N/A	Work with community leaders to spread climate hazard and adaptation knowledge further into the community. Incorporate additional climate education opportunities into community events like Annual Spring Clean Up Event and others.	1-2-3-4		X		M	O
34	Business Community/Commercial Uses - Retail, Office, etc.	S	city-wide	private	Partner with Chamber of Commerce to further engage with business community. Explore public-private partnerships to further climate adaptation strategies and implementation, particularly in Island End and Commercial Triangle areas.	1-4		X		M	L/O

Community Resilience Building Risk Matrix

www.CommunityResilienceBuilding.org

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

1 - Coastal Flooding (Sea Level Rise/Storm Surge)	2- Inland Flooding (due to Precipitation/Storm Event)	3- Heat Wave	4- Extreme Storms

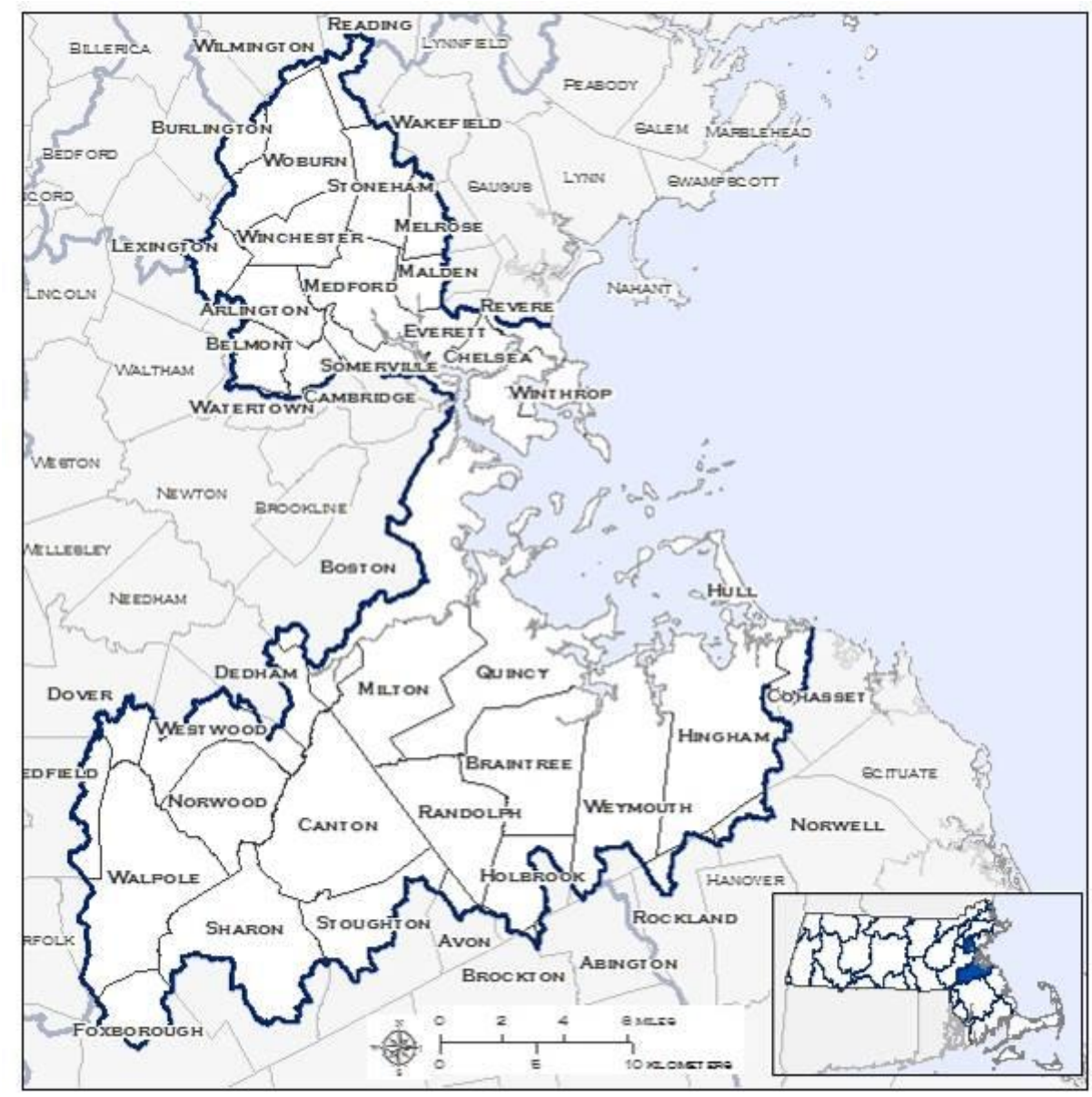
	Vulnerabilities (V) and/or Strengths (S)	V / S	Location	Owner	Solutions	Top Priority Hazard #	Infrastructural	Societal	Environmental	Hight, Medium or Low priority for action over the Short or Long term and Ongoing	
						#				H/M/L	S/L/O
35	Vulnerable Population - Economically Stressed (Housing/Financial Resources)	V	city-wide	N/A	Work with adjacent cities and towns to coordinate additional permanent housing shelters. Work with social service providers to understand the community needs and improve communications prior to hazard events. Educate Everett's strong faith-based community groups on climate hazards.	1-2-3-4		X		M	L/O
36	Public Education	V/S	city-wide	N/A	Lack of knowledge of climate impacts throughout the community should be addressed, particularly related to the importance of green space and the public health impacts of heat exposure. Work with Everett School system to teach youth about climate hazards and adaptations.	1-2-3-4		X		M	L/O
37	Trees (not well distributed throughout community, some aged/diseased, some endangered by recent storms, etc.) and other vegetation	V	city-wide	public/ private	Prepare a community-wide assessment of municipal trees for health, location, quantity, etc. Develop comprehensive tree planting plan and strategy. Perform a community-wide analysis of opportunities for the use of green infrastructure throughout Everett. Consider use of living walls, parklets, tree pits, etc. Identify a maintenance program/partnership for green infrastructure and street trees.	3&4			X	M	L/O
38	Open Space	V	city-wide	City of Everett	Continue to pursue ways to increase amount of open space, particularly pervious, vegetated open space in the City of Everett, including acquisition of property. Purse open space restoration projects, such as addressing erosion and restoring riverbanks near Gateway Center and River Green. Consider options for splash pads, public pools and misting stations to address heat hazards.	1-2-3-4			X	M	L/O
39	Municipal Buildings & Parks	V/S	city-wide	City of Everett	Emergency generators access at municipal facilities should be reviewed and enhanced as needed.	2&4	X			L	S
40	Everett Armory/Connelly Center - Community Center (and Shelter)	S	90 Chelsea Street	City of Everett	Evaluate other shelter/cooling center options in Everett and regionally. Enhance options & programming at the Connelly Center to promote use by residents.	4	X			L	S
41	Renewable Energy (Solar/Wind)	S	city-wide	public	City of Everett has signed an agreement to purchase municipal energy/electricity from renewable sources. Identify locations in the City that could host solar canopies & work with state/private entities to provide incentives to private property owners to site these facilities.	3	X			L	L/O
42	Vulnerable Populations - Pets/Service Animals	V	city-wide	private	Residents who own pets may be more resistant to evacuation, so sheltering options should include options for pet evacuations and boarding during/following storm events.	1-2-3-4		X		L	L

BOSTON HARBOR BASIN CLIMATE PROJECTIONS

BOSTON HARBOR BASIN

MUNICIPALITIES WITHIN BOSTON HARBOR BASIN:

Abington, Arlington, Avon, Belmont, Boston, Braintree, Brockton, Burlington, Cambridge, Canton, Chelsea, Cohasset, Dedham, Dover, Everett, Foxborough, Hingham, Holbrook, Hull, Lexington, Malden, Melrose, Medfield, Medford, Milton, Norwell, Norwood, Quincy, Randolph, Reading, Revere, Rockland, Sharon, Somerville, Stoneham, Stoughton, Wakefield, Walpole, Watertown, Westwood, Weymouth, Wilmington, Winchester, Winthrop, and Woburn



Many municipalities fall within more than one basin, so it is advised to use the climate projections for the basin that contains the majority of the land area of the municipality.

BOSTON HARBOR BASIN

Boston Harbor Basin		Observed Baseline 1971-2000 (°F)	Projected Change in 2030s (°F)	Mid-Century Projected Change in 2050s (°F)	Projected Change in 2070s (°F)	End of Century Projected Change in 2090s (°F)
Average Temperature	Annual	50.1	+2.1 to +4.0	+2.7 to +6.1	+3.2 to +8.9	+3.5 to +10.8
	Winter	29.8	+2.2 to +4.6	+2.9 to +6.9	+3.5 to +8.9	+3.9 to +10.3
	Spring	47.7	+1.7 to +3.4	+2.3 to +5.4	+2.6 to +8.0	+3.1 to +9.8
	Summer	70.1	+1.8 to +4.0	+2.3 to +6.5	+2.8 to +9.8	+3.4 to +12.1
	Fall	52.6	+2.0 to +4.7	+3.5 to +6.5	+3.3 to +9.3	+3.8 to +11.6
Maximum Temperature	Annual	59.6	+1.9 to +3.9	+2.6 to +6.0	+2.9 to +8.9	+3.2 to +10.7
	Winter	38.4	+1.9 to +4.3	+2.5 to +6.4	+3.0 to +8.3	+3.4 to +9.6
	Spring	57.5	+1.5 to +3.4	+2.0 to +5.4	+2.6 to +8.2	+3.1 to +9.7
	Summer	80.0	+1.7 to +4.0	+2.2 to +6.4	+2.7 to +9.9	+3.2 to +12.2
	Fall	61.9	+2.1 to +4.5	+3.3 to +6.7	+3.2 to +9.4	+3.6 to +11.8
Minimum Temperature	Annual	40.7	+2.2 to +4.2	+2.9 to +6.2	+3.5 to +8.9	+3.8 to +11.0
	Winter	21.3	+2.5 to +5.0	+3.2 to +7.3	+4.0 to +9.5	+4.3 to +10.9
	Spring	37.8	+1.8 to +3.5	+2.6 to +5.7	+2.6 to +7.8	+3.3 to +9.8
	Summer	60.1	+1.9 to +3.9	+2.4 to +6.8	+2.9 to +9.6	+3.6 to +12.0
	Fall	43.2	+2.0 to +4.8	+3.5 to +6.5	+3.4 to +9.3	+3.9 to +11.4

- The Boston Harbor basin is expected to experience increased average temperatures throughout the 21st century. Maximum and minimum temperatures are also expected to increase throughout the end of the century. These increased temperature trends are expected for annual and seasonal projections.
- Seasonally, maximum summer and fall temperatures are expected to see the highest projected increase throughout the 21st century.
    - Summer mid-century increase of 2.2 °F to 6.4 °F (3-8% increase); end of century increase of 3.2 °F to 12.2 °F (4-15% increase).
    - Fall mid-century increase of 3.3 °F to 6.7°F (5-11% increase); end of century increase by and 3.6 °F to 11.8 °F (6-19% increase).
- Seasonally, minimum winter and fall temperatures are expected to increase throughout the 21st century.
    - Winter mid-century increase of 3.2 °F to 7.3 °F (15-34% increase); end of century increase by 4.3 °F to 10.9 °F (20-51% increase).
    - Fall mid-century of 3.5 °F to 6.5 °F (8-15% increase); end of century increase of 3.9 °F to 11.4 °F (9-26% increase).

BOSTON HARBOR BASIN

Boston Harbor Basin		Observed Baseline 1971-2000 (Days)	Projected Change in 2030s (Days)	Mid-Century Projected Change in 2050s (Days)	Projected Change in 2070s (Days)	End of Century Projected Change in 2090s (Days)
Days with Maximum Temperature Over 90°F	Annual	8	+6 to +16	+8 to +29	+9 to +49	+12 to +67
	Winter	0	+0 to +0	+0 to +0	+0 to +0	+0 to +0
	Spring	1	+<1[29] to +1	+<1[29] to +1	+<1[29] to +2	+<1[29] to +4
	Summer	7	+5 to +13	+6 to +24	+8 to +40	+10 to +52
	Fall	<1[29]	+1 to +2	+1 to +5	+1 to +8	+1 to +11
Days with Maximum Temperature Over 95°F	Annual	1	+2 to +7	+2 to +13	+3 to +26	+5 to +41
	Winter	0	+0 to +0	+0 to +0	+0 to +0	+0 to +0
	Spring	<1[29]	+<1[29] to +<1[29]	+<1[29] to +<1[29]	+0 to +1	+<1[29] to +2
	Summer	1	+2 to +6	+2 to +11	+3 to +23	+4 to +36
	Fall	<1[29]	+<1[29] to +1	+<1[29] to +2	+<1[29] to +4	+<1[29] to +5
Days with Maximum Temperature Over 100°F	Annual	<1[29]	+<1[29] to +1	+<1[29] to +4	+<1[29] to +9	+1 to +16
	Winter	0	+0 to +0	+0 to +0	+0 to +0	+0 to +0
	Spring	0	+0 to +<1[29]	+0 to +<1[29]	+0 to +<1[29]	+0 to +<1[29]
	Summer	<1[29]	+<1[29] to +1	+<1[29] to +4	+<1[29] to +8	+1 to +14
	Fall	0	+0 to +<1[29]	+0 to +<1[29]	+0 to +1	+<1[29] to +1

- Due to projected increases in average and maximum temperatures throughout the end of the century, the Boston Harbor basin is also expected to experience an increase in days with daily maximum temperatures over 90 °F, 95 °F, and 100 °F.
    - Annually, the Boston Harbor basin is expected to see days with daily maximum temperatures over 90 °F increase by 8 to 29 more days by mid-century, and 12 to 67 more days by the end of the century.
    - Seasonally, summer is expected to see an increase of 6 to 24 more days with daily maximums over 90 °F by mid-century.
    - By end of century, the Boston Harbor basin is expected to have 10 to 52 more days.

[29] Over the observed period, there were some years with at least 1 day with seasonal Tmax over a certain threshold while in all the other years that threshold wasn't crossed seasonally at all.

BOSTON HARBOR BASIN

Boston Harbor Basin		Observed Baseline 1971-2000 (Days)	Projected Change in 2030s (Days)	Mid-Century Projected Change in 2050s (Days)	Projected Change in 2070s (Days)	End of Century Projected Change in 2090s (Days)
Days with Minimum Temperature Below 0°F	Annual	3	-1 to -2	-1 to -2	-1 to -2	-1 to -2
	Winter	3	-1 to -2	-1 to -2	-1 to -2	-1 to -2
	Spring	<1[30]	-0 to +<1[30]	-0 to -0	-0 to -0	-0 to -0
	Summer	0	-0 to -0	-0 to -0	-0 to -0	-0 to -0
	Fall	0	-0 to -0	-0 to -0	-0 to -0	-0 to -0
Days with Minimum Temperature Below 32°F	Annual	119	-12 to -27	-17 to -42	-21 to -55	-23 to -66
	Winter	76	-4 to -10	-5 to -17	-8 to -26	-9 to -34
	Spring	27	-3 to -10	-6 to -14	-7 to -18	-8 to -20
	Summer	0	-0 to -0	-0 to -0	-0 to -0	-0 to -0
	Fall	16	-4 to -8	-6 to -10	-7 to -13	-6 to -14

- Due to projected increases in average and minimum temperatures throughout the end of the century, the Boston Harbor basin is expected to experience a decrease in days with daily minimum temperatures below 32 °F and 0 °F.
- Seasonally, winter, spring and fall are expected to see the largest decreases in days with daily minimum temperatures below 32 °F.
    - Winter is expected to have 5 to 17 fewer days by mid-century, and 9 to 34 fewer by end of century.
    - Spring is expected to have 6 to 14 fewer days by mid-century, and 8 to 20 fewer by end of century.
    - Fall is expected to have 6 to 10 fewer days by mid-century, and 6 to 14 fewer days by end of century.

[30] Over the observed period, there were some years with at least 1 day with seasonal Tmin under a certain threshold while in all the other years that threshold wasn't crossed seasonally at all.

BOSTON HARBOR BASIN

Boston Harbor Basin		Observed Baseline 1971-2000 (Degree-Days)	Projected Change in 2030s (Degree-Days)	Mid-Century Projected Change in 2050s (Degree-Days)	Projected Change in 2070s (Degree-Days)	End of Century Projected Change in 2090s (Degree-Days)
Heating Degree-Days (Base 65°F)	Annual	6079	-501 to -1035	-672 to -1473	-798 to -1956	-899 to -2343
	Winter	3182	-191 to -421	-251 to -634	-312 to -806	-359 to -949
	Spring	1623	-132 to -285	-190 to -447	-216 to -630	-278 to -742
	Summer	78	-29 to -49	-34 to -62	-40 to -72	-44 to -75
	Fall	1191	-143 to -331	-248 to -418	-232 to -591	-254 to -669
Cooling Degree-Days (Base 65°F)	Annual	636	+217 to +443	+281 to +764	+327 to +1206	+381 to +1559
	Winter	0	+0. to +4	+0 to +5	-1 to +3	+0 to +5
	Spring	27	+13 to +33	+23 to +64	+26 to +103	+24 to +143
	Summer	544	+136 to +321	+175 to +541	+213 to +828	+261 to +1041
	Fall	60	+37 to +102	+57 to +191	+67 to +289	+94 to +376
Growing Degree-Days (Base 50°F)	Annual	2733	+393 to +798	+538 to +1251	+606 to +1996	+692 to +2508
	Winter	7	+1 to +17	+3 to +20	+7 to +37	+7 to +47
	Spring	327	+77 to +152	+101 to +262	+106 to +408	+122 to +527
	Summer	1847	+164 to +363	+215 to +600	+255 to +899	+312 to +1114
	Fall	547	+109 to +299	+198 to +441	+186 to +655	+236 to +818

- Due to projected increases in average, maximum, and minimum temperatures throughout the end of the century, the Boston Harbor basin is expected to experience a decrease in heating degree-days, and increases in both cooling degree-days and growing degree-days.
- Seasonally, winter historically exhibits the highest number of heating degree-days and is expected to see the largest decrease of any season, but spring and fall are also expected to see significant change.
    - The winter season is expected to see a decrease of 251 to 634 degree-days by mid-century (a decrease of 8-20%), and a decrease of 359 to 949 degree-days by the end of century (a decrease of 11-30%).
    - The spring season is expected to decrease in heating degree-days by 12-28% (190-447 degree-days) by mid-century, and by 17-46% (278-742 degree-days) by the end of century.
    - The fall season is expected to decreases in heating degree-days by 21-35% (248-718 degree-days) by mid-century, and by and 21-56% (254-669 degree-days) by the end of century.
- Conversely, due to projected increasing temperatures, summer cooling degree-days are expected to increase by 32-99% (175-541 degree-days) by mid-century, and by 48-191% (261-1041 degree-days) by end of century.

- Seasonally, summer historically exhibits the highest number of growing degree-days and is expected to see the largest decrease of any season, but the shoulder seasons of spring and fall are also expected to see an increase in growing degree-days.
    - The summer season is projected to increase by 12-32% (215-600 degree-days) by mid-century, and by 17-60% (312-1114 degree-days) by end of century.
    - Spring is expected to increase by 31-80% (101-262 degree-days) by mid-century and 37-161% (122.-527 degree-days) by end of century.
    - Fall is expected to increase by 36-81% (198-441 degree-days) by mid-century and 43-149% (236-818 degree-days) by end of century.

BOSTON HARBOR BASIN

Boston Harbor Basin		Observed Baseline 1971-2000 (Days)	Mid-Century		End of Century	
			Projected Change in 2030s (Days)	Projected Change in 2050s (Days)	Projected Change in 2070s (Days)	Projected Change in 2090s (Days)
Days with Precipitation Over 1"	Annual	9	+<1[31] to +2	+1 to +3	+1 to +3	+1 to +4
	Winter	2	+0 to +1	+<1[31] to +1	+<1[31] to +2	+<1[31] to +2
	Spring	2	+0 to +1	+0 to +1	+<1[31] to +1	+<1[31] to +1
	Summer	2	+0 to +1	+0 to +1	+0 to +1	+0 to +1
	Fall	3	+0 to +1	+0 to +1	+0 to +1	+0 to +1
Days with Precipitation Over 2"	Annual	1	+<1[31] to +1	+<1[31] to +1	+<1[31] to +1	+<1[31] to +1
	Winter	<1[31]	+0 to +<1[31]	+0 to +<1[31]	+0 to +<1[31]	+<1[31] to +<1[31]
	Spring	<1[31]	+0 to +<1[31]	+0 to +<1[31]	+0 to +<1[31]	+<1[31] to +<1[31]
	Summer	<1[31]	+0 to +<1[31]	+0 to +<1[31]	+0 to +<1[31]	+0 to +<1[31]
	Fall	<1[31]	+0 to +<1[31]	+0 to +<1[31]	+<1[31] to +<1[31]	+0 to +<1[31]
Days with Precipitation Over 4"	Annual	<1[31]	+0 to +<1[31]	+0 to +<1[31]	+0 to +<1[31]	+0 to +<1[31]
	Winter	0	+0 to +0	+0 to +0	+0 to +0	+0 to +0
	Spring	0	+0 to +<1[31]	+0 to +<1[31]	+0 to +<1[31]	+0 to +<1[31]
	Summer	<1[31]	+0 to +<1[31]	+0 to +<1[31]	+0 to +<1[31]	+0 to +<1[31]
	Fall	<1[31]	+0 to +<1[31]	+0 to +<1[31]	+0 to +<1[31]	+0 to +<1[31]

- The projections for expected number of days receiving precipitation over one inch are variable for the Boston Harbor basin, fluctuating between loss and gain of days.
    - Seasonally, the winter season is generally expected to see the highest projected increase.
    - The winter season is expected to see an increase in days with precipitation over one inch of 0-1 days by mid-century, and by 0-2.days by the end of century.
    - The spring season is expected to see an increase in days with precipitation over one inch of 0-1 days) by mid-century, and by 0-1 days) by the end of century.

[31] Over the observed period, there were some years with at least 1 day with seasonal precipitation over a certain threshold while in all the other years that threshold wasn't crossed seasonally at all.

BOSTON HARBOR BASIN

Boston Harbor Basin		Observed Baseline 1971-2000 (Inches)	Projected Change in 2030s (Inches)	Mid-Century Projected Change in 2050s (Inches)	Projected Change in 2070s (Inches)	End of Century Projected Change in 2090s (Inches)
Total Precipitation	Annual	46.1	+0.0 to +4.7	+0.3 to +6.2	+1.2 to +7.7	+1.1 to +9.0
	Winter	11.8	-0.4 to +1.9	-0.0 to +2.4	+0.4 to +3.0	+0.4 to +4.1
	Spring	11.6	-0.1 to +2.2	+0.0 to +2.2	+0.1 to +2.7	+0.3 to +2.8
	Summer	10.5	-0.5 to +1.6	-0.4 to +1.9	-1.0 to +2.8	-1.7 to +2.2
	Fall	12.2	-0.9 to +1.2	-1.0 to +1.6	-1.7 to +2.1	-1.6 to +1.8

- Similar to projections for number of days receiving precipitation over a specified threshold, seasonal projections for total precipitation are also variable for the Boston Harbor basin.
    - The winter season is expected to experience the greatest change with an increase of 0-20% by mid-century, and 3-34% by end of century.
    - Projections for the summer and fall seasons are more variable, and could see either a drop or increase in total precipitation throughout the 21st century.
        - The summer season projections for the Boston Harbor basin could see a decrease of 0.4 to an increase of 1.9 inches by mid-century (decrease of 4% to increase of 18%), and a decrease of 1.7 to an increase of 2.2 inches by the end of the century (decrease of 16% to increase of 21%).
        - The fall season projections for the Boston Harbor basin could see a decrease of 1.0 to an increase of 1.6 inches by mid-century (decrease of 8% to increase of 13%), and a decrease of 1.6 to an increase of 1.8 inches by the end of the century (decrease of 13% to increase of 15%).

Boston Harbor Basin		Observed Baseline 1971-2000 (Days)	Projected Change in 2030s (Days)	Mid-Century Projected Change in 2050s (Days)	Projected Change in 2070s (Days)	End of Century Projected Change in 2090s (Days)
Consecutive Dry Days	Annual	17	-0 to +1	-0 to +2	-1 to +3	-1 to +4
	Winter	11	-1 to +1	-1 to +1	-1 to +2	-1 to +2
	Spring	11	-1 to +1	-1 to +1	-1 to +1	-1 to +1
	Summer	13	-1 to +1	-1 to +2	-1 to +3	-1 to +2
	Fall	13	-0 to +2	-0 to +3	-0 to +3	-0 to +3

- Annual and seasonal projections for consecutive dry days, or for a given period, the largest number of consecutive days with precipitation less than 1 mm (~0.04 inches), are variable throughout the 21st century.
    - For all the temporal parameters, the Boston Harbor basin is expected to see a slight decrease to an increase in consecutive dry days throughout this century.
    - Seasonally, the fall and summer seasons are expected to continue to experience the highest number of consecutive dry days.
        - The fall season is expected to experience an increase of 0-3 days in consecutive dry days by the end of the century.

PUBLIC LISTENING SESSION - FLYER

PLEASE JOIN US FOR A PUBLIC LISTENING SESSION TO LEARN ABOUT THIS IMPORTANT PLANNING EFFORT AND PROVIDE FEEDBACK

TAKE ACTION!

- DEVELOP AND PRIORITIZE ACTIONS
- COMPLETE ASSESSMENT OF VULNERABILITIES AND STRENGTHS
- IDENTIFY CLIMATE IMPACTS AND HAZARDS
- ENGAGE COMMUNITY

PUBLIC LISTENING SESSION

The City of Everett has received a Municipal Vulnerability Preparedness (MVP) Planning Grant from the Commonwealth of Massachusetts. Over the past 10 months, Everett Stakeholders have engaged in a planning initiative to better understand **HOW OUR COMMUNITY IS VULNERABLE TO THE EFFECTS OF CLIMATE CHANGE,** and to prioritize actions to increase the climate resilience of our town.

WHERE: enVision Hotel
1834 Revere Beach Parkway, Everett, MA 02149

WHEN: Thursday, June 13, 2019

TIME: 6:30 pm - 8:00 pm

City of Everett Massachusetts | Executive Office of Energy and Environmental Affairs | BSC GROUP

Acompañenos durante la Sesión Pública de Diálogo para enterarse de los esfuerzos de planificación y para proveer sugerencias.

¡Tomar Acción!

- desarrollar y priorizar acciones
- Evaluar vulnerabilidades y fortalezas
- identificar impactos y riesgos climáticos
- Incluir miembros de la comunidad

Sesión Pública de Diálogo

El municipio de Everett ha recibido una beca de Planificación de Vulnerabilidad Municipal (MVP) del Estado de Massachusetts. Durante los últimos 10 meses, representantes de la comunidad se han comprometido en favor de una iniciativa conjunta para entender las vulnerabilidades de la comunidad con reference al cambio climático y para priorizar acciones que ayuden aumentar la resistencia ante el clima.

DONDE: enVision Hotel
1834 Revere Beach Parkway, Everett, MA 02149

CUANDO: Jueves, 13 de junio del 2019

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