

MEMORANDUM

- To: Ms. Whitney McClees, Conservation Agent and Sustainability Coordinator, Town of Fairhaven
- From: Darrin Punchard, AICP, CFM, Principal

Date: June 16, 2020

Re: MVP Planning Grant Task 2 – Town of Fairhaven Policy and Regulatory Review Final Recommendations

As part of its ongoing MVP support to the Town of Fairhaven, Punchard Consulting has completed its inventory and evaluation of existing Town bylaws and regulations that warranted a review through the lens of climate change and its anticipated effects for the community. The attached Summary Table includes our final set of recommendations with regard to specific areas of the Town Code that could potentially be modified to improve climate resiliency. The table is based on our initial assessment and the feedback received from the Town on our preliminary findings and recommendations as shared in a memorandum dated April 14, 2020.

The purpose of this memorandum is to provide the Town with an updated, prioritized list of recommended changes or updates to existing bylaws and regulations, along with the identification of some examples from other Massachusetts communities to help the Town in moving forward with the code amendment process. The attached Summary Table is meant to serve as a list of targeted code amendments for the Town to pursue with the support of those with direct experience in municipal code writing and the requisite legal and subject matter expertise for implementing regulations (i.e., wetlands, conservations, stormwater management, etc.).

In performing this task, Punchard Consulting reviewed the following key reports and plans to understand the goals and recommendations that had been identified previously to improve the resilience of the town:

- Community Resilience Building Workshop Summary of Findings Report (Draft, March 2020)
- Town of Fairhaven Hazard Mitigation Plan (2018)
- Fairhaven 2040: Town of Fairhaven Master Plan (2018)
- Town of Fairhaven Open Space & Recreation Plan (2017)

Punchard Consulting also reviewed the following Town bylaws and regulations:

- Administrative Legislation
 - Chapter 6 Community Preservation Committee
 - Chapter 8 Conservation Commission
 - Chapter 40 Capital Planning Committee
 - Chapter 65 Planning Board
- General Legislation
 - Chapter 158 Sewers
 - Chapter 187 Water
 - o Chapter 192 Wetlands

- Chapter 194 Stormwater Management
- o Chapter 198 Zoning
- Planning Board
 - o Chapter 322 Subdivision of Land
- Board of Health
 - Chapter 483 Water
 - o Chapter 487 Wells
- Zoning Board of Appeals
 - Chapter 493 Comprehensive Permits, Rules and Regulations Governing

Finally, as part of this task, Punchard Consulting conducted a review of existing examples and best practices for incorporating climate resilience into municipal policies and regulations, here in Massachusetts and beyond. This included a web-based literature review and use of the *Bylaw Review for LID & Climate-Smart, Nature-Based Solutions* tool developed by Mass Audubon. This tool provides an analytical framework designed to assist Massachusetts communities in evaluating local land use regulations and applying cost-effective Low Impact Development (LID) techniques based on existing models and best practices.

Next Steps

Once we understand which recommendations the Town is most interested to further explore, I will work with you to identify specific actions for the Town to pursue as a follow-on activity to this regulatory review. We can also further determine the need for any additional discussions and/or potential work sessions with the Town's relevant boards and commissions before the conclusion of this task.

I look forward to discussing the content of this memorandum with you soon. Please feel free to contact me with any questions at darrin@punchardconsulting.com or 617-777-2001.

Bylaw / Regulation	Code Citation	Final Recommendations	Priority
Administrative Legisla	tion		
Community Conservation Committee	Chapter 6	Establishes administrative procedures for the creation and duties for the Town's Community Preservation Committee. <u>Recommendations:</u> 1. Amend § 6-2 (Duties) to state that it shall also be the duty of the Committee to	High
		consider climate change impacts and resilience in making their decisions and recommendations for funding to the Town Meeting, and in carrying out other aspects of its work as appropriate. Climate change adaptation and resilience measures are often consistent with community preservation and can generally be accomplished through the same actions or projects (e.g., acquisition, creation, and preservation of open space; rehabilitation or restoration of such open space, historic resources, land for recreational use and community housing).	111611
Conservation Commission	Chapter 8	Establishes basic procedures pursuant to MGL c. 40, § 8C and for administering the provisions of the Town's Wetlands regulations (Chapter 192).	
		Recommendations:	
		 Amend § 8-2 (Duties and authorities) to explicitly state that it shall also be the duty of the Commission to consider climate change impacts and resilience in its decision to approve or deny a permit. This could be done by considering the potential adverse impacts to wetland resource areas both as they currently exist and as they are reasonably expected to exist based on best available data on the projected impacts of climate change. 	High
		 Amend § 8-2 (Duties and authorities) to state that the Commission shall enact guidelines, performance standards, and implementing regulations establishing how climate change impacts and resilience will be considered during project review and ensuring consistency with other Town regulations. 	High
Capital Planning Committee	Chapter 40	Establishes administrative procedures for the Town's Capital Improvement Program and Capital Planning Committee.	
		Recommendation:	
		 Amend § 40-3 (Duties of Committee) to state that it shall also be the duty of the Committee to consider climate change impacts and resilience when preparing or updating the Capital Improvement Plan. This may include specific policies or criteria for using climate change adaptation and resilience as a factor for adding projects to the CIP 	High

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		and/or setting priorities for funding. This is a recommended best practice by the Massachusetts Municipal Association, and it would encourage climate risk and resilience measures be considered for future infrastructure improvements to help protect the community and the Town's investments from potential damage or loss. Such policies or criteria could also place higher priority on projects that integrate nature-based solutions that provide multiple co-benefits for the community.	
Planning Board	Chapter 65	Establishes basic procedures for the Planning Board, including its powers and duties pursuant to MGL c. 41, § 81A.	
		Recommendations:	
		 Amend § 65-3 (Powers and duties) to state that it shall also be the duty of the Board to consider climate change impacts and resilience in making recommendations, approving plans, initiating new zoning bylaws or amendments, or carrying out other aspects of its work as appropriate. 	High
		2. Require that each member of the Planning Board participate in a training and education class concerning climate change impacts and resilience, development in floodplains, and/or the effects of sea level rise once every two years (various options exist, including online training modules for planning board members in other states). If this recommendation moves forward, the Town is also encouraged to require other regulatory boards to complete similar training concerning climate impacts and resilience as appropriate (Conservation Commission, Zoning Board of Appeals, etc.).	High
General Legislation	1		
Wetlands	Chapter 192	Establishes the Town's regulatory rules and procedures to protect wetlands, related water resources and adjoining land areas by controlling activities deemed by the Conservation Commission likely to have a significant or cumulative effect upon wetland values, including but not limited to the following: public or private water supply, groundwater, flood control, erosion and sedimentation control, storm damage prevention, water pollution control, fisheries, wildlife habitat, recreation, aesthetics and agriculture values. A municipality can adopt a wetland bylaw under its Home Rule authority as long as the provisions are more stringent than the state's Wetlands Protection Act.	
		Recommendations:	
		 Overall recommendation is to more explicitly state the need to protect and conserve the natural green infrastructure and beneficial ecosystem services provided by wetland resources as it relates to long-term climate change resilience. 	High

Bylaw / Regulation	Code Citation	Final Recommendations	Priority
		 Amend § 192-1 (Purpose) to include "climate change resilience" to the list of wetland values protected by this chapter. 	High
		 Amend § 192-2 (Regulated Activities) to define regulated activities more broadly to include not only specified activities that will alter resource areas but also those which "pose a significant threat to alter" such areas. 	Medium
		4. Amend § 192-2 (D) to state that the Commission is allowed or directed to consider climate change and sea level rise projections in determining lands subject to flooding, lands subject to tidal action, coastal storm flowage, or flooding and when placing restrictions on development activities in areas of special flood hazard. This may include specific language to extend the Conservation Commission's jurisdiction to areas that are determined to be at risk of future flood impacts based on best available data and information, including but not limited to future conditions flood risk mapping as generated through the Massachusetts Coast Flood Risk Model (MC-FRM). This would allow the Commission to use better information as it becomes available to more accurately predict the impact of sea level rise and regulate activities in lands vulnerable to future flooding.	High
		5. Update this chapter to include a specific projection for sea level rise under future climate change, thereby increasing the restricted area where development is not to be permitted due to flood hazard and impact on important lands for flood control. <i>Examples where this has been done in MA include Duxbury, Falmouth, and Hingham.</i>	High
		6. Update this chapter to regulate a greater geographic area for lands subject to flooding, such as the FEMA-mapped "500-year" floodplain or community-defined floodplain areas based on projected future conditions that take into account sea level rise, the landward migration of wetland resource areas, the need for increased flood storage, or other buffer zones that extend beyond 100 feet from existing flood hazard zones. As noted in Recommendation #4 above, this may also include areas that are determined to be at risk of future flood impacts based on best available data and information, including but not limited to future conditions flood risk mapping as generated through the Massachusetts Coast Flood Risk Model (MC-FRM). <i>Examples where this has been done in MA include Scituate and Falmouth</i> .	Medium
		7. Update this chapter to include new definitions and specific requirements for applicants to include an evaluation of climate change resilience and considerations for adaptation measures when proposing projects in wetland resource areas. <i>Examples where this has been done in MA include Boston and Arlington.</i>	High

Bylaw / Regulation	Code Citation	Final Recommendations	Priority
		8. Update this chapter to expressly allow or direct the Commission to consider climate change, sea level rise, and resiliency in reviewing applications using best available data; and to develop and apply additional performance standards to help ensure wetland values are adequately protected from potentially adverse effects.	High
		9. Amend § 192-2 to include the Nasketucket River Basin District as an identified resource area within the Conservation Commission's jurisdiction for regulated activities.	Medium
		10. Promulgate Town-specific regulations that detail the performance standards and expectations for compliance with this chapter. Many of the above recommendations could be addressed through these associated regulations, the adoption of which would not need to go before Town Meeting (whereas changes to the existing bylaw would). <i>Examples of where this has been done in MA include Arlington, Duxbury, and Falmouth.</i>	High
Stormwater Management	Chapter 194	Establishes the Town's regulatory rules and procedures to protect water bodies, groundwater, and natural resources through the regulation of non-stormwater discharges to the storm drainage system to the maximum extent practicable as required by federal and state law, and through the regulation of stormwater runoff, soil erosion, and sedimentation associated with developed land uses and the accompanying increase in impervious surface. It is administered, implemented, and enforced by the Board of Public Works (BPW).	
		Recommendations:	
		 Amend § 194-2 (Purpose) to include an additional objective for this chapter relating to the mitigation of impacts from climate change and/or the enhancement and promotion of climate change resilience. 	Medium
		 Amend § 194-3 (Definitions) to include additional definitions as appropriate to clarify new terms used in revised language for the chapter (e.g., adaptation, extreme weather event, climate change impacts, resilience, storm damage prevention, etc.). 	Medium
		 Amend § 194-5 (Administration) and other relevant sections as required to have illicit discharge regulations enforced by BPW and erosion and sedimentation control/land disturbance regulations enforced by the Conservation Commission and/or Planning Board. 	High
		 Amend § 194-7 (Land-disturbance permits) to include the Conservation Commission in the list of other boards to be sent a copy of applications for a land-disturbance permit. 	Medium
		 Amend § 194-9 (Stormwater Management Plan) to include language that the Town encourages or requires the use of green infrastructure practices or other nature-based solutions over traditional grey infrastructure, unless grey is justified. 	High

Bylaw / Regulation	Code Citation	Final Recommendations	Priority
		6. Update this chapter to state that minimum stormwater management standards and design criteria shall be determined by applicants using the best available data for calculating stormwater peak runoff rates, including those that take into account projected increases due to climate change. Best available data may include storm intensity and precipitation frequency statistics published by National Oceanic and Atmospheric Administration (NOAA) Atlas 14. MassDEP allows these alternative data sources to be used so long as the selected methodology has a higher precipitation value than that of Technical Paper 40 (TP40) for the geographic location being evaluated. Specific options for this update should be determined through further research and discussion with Town staff, and if this recommendation moves forward, similar updates should be incorporated into associated regulations for the Conservation Commission as appropriate.	High
		7. As a possible alternative to #5 above (which raises stormwater standards and design criteria in all cases), the chapter could be revised to provide additional flexibility to the BPW to condition application approval on higher performance standards for projects draining to specific areas where the storm drainage system is already stressed and/or where future flooding is an established concern. In support of this option the BPW could maintain a list or map of areas where such conditional approvals may apply, based on best available data and through consultation with other relevant boards.	Medium
		 Consider the creation of a stormwater management fee or utility to create a stable funding source for the maintenance and future improvements/upgrades to the Town's aging storm drainage system (and other measures to protect Fairhaven's water resources and mitigate future flooding). 	Low
Zoning	Chapter 198	Establishes the Town's zoning districts and applicable regulations on the use and intensity of use of land within those districts, in addition to other general regulations. It is administered by the Building Commissioner with the Fairhaven Planning Board and Zoning Board of Appeals designated as the Town's special permit granting authorities.	
		Recommendations:	
		 Amend § 198-8 (Special permit) to state that the special permit granting authority is allowed or directed to consider climate change and projected future conditions in determining the issuance of special permits for certain uses. These considerations should be based on best available science and data on expected climate changes, including but not limited to the resilient MA Climate Clearinghouse. 	High
		 Amend § 198-28 (Floodplain and Nasketucket River Basin Districts) to include higher regulatory standards that will protect existing and future development by exceeding 	Medium

Bylaw / Regulation	Code Citation	Final Recommendations	Priority
		minimum standards of the National Flood Insurance Program. Recommended higher standards include the following:	
		 Require higher design flood elevations for new or substantially-improved Town-owned building or public facilities located in coastal flood hazard areas to decrease their vulnerability to future conditions that may increase current flood hazard risks including sea level rise, coastal erosion, and storm surge from hurricanes. 	Medium
		 Enact a freeboard incentive that allows for permit fee waivers or credits to promote higher design flood elevations for new or substantially-improved residential structures in flood hazard areas to (1) decrease their vulnerability to future climate conditions that are projected to increase current flood hazard risks; and (2) to decrease future flood insurance costs for property owners. An example of where this has been done in MA includes the Town of Hull. 	High
		c. Adopt a more restrictive definition of "Substantial Improvement" as provided in Article F to bring existing structures into compliance with Floodplain District requirements. The current definition requires the Town to track substantial improvements cumulatively over a five-year period. An updated lookback period of 10 years is recommended, and the language in this article should clarify that reconstruction and repairs to flood-damaged buildings are counted as improvements.	Medium
		d. Prohibit lower level enclosures below the base flood elevation to discourage property owners from finishing the area and/or storing valuable or hazardous items in that area. <i>There are a variety of regulatory options available to consider and further discuss if this recommendation is of interest to the Town</i> .	Low
		e. Prohibit fill and/or require compensatory storage in the entire Floodplain District. Current language in Article H prohibits fill any bank, marsh, swamp, or flat bordering on coastal or inland water or any other land subject to tidal action or coastal flooding. This should be updated to prohibit fill in all floodplain areas to and/or require compensatory storage to maintain existing floodplain storage capacity. Minor filling could still be allowed where needed to protect or restore natural floodplain functions, such as a part of a channel restoration project.	Medium
		f. Prohibit the outdoor storage of hazardous materials or wastes as defined by EPA or OSHA regulations in the entire Floodplain District. Current language in	Low

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		Article G (j) only prohibits the storage or disposal of hazardous materials in the Nasketucket River Basin District.	
		g. Update this chapter to establish a regulatory Floodplain District that is greater than the special flood hazard areas as currently designated on FEMA Flood Insurance Rate Maps, which do not take sea level rise, heavier precipitation patterns, or other future climate conditions into account. Options may include creating a "Resiliency Overlay District" with its own flood resilience regulations or guidelines using the FEMA-mapped "500-year" floodplain, more extensive buffer zones, or community-defined floodplain areas that are based on best available data for projected future climate conditions. <i>Similar to Recommendation #6 for Chapter 192: Wetlands. An example of where this is being done in MA include the City of Boston.</i>	Medium
		3. Amend § 198-29 (Special permits for certain intensive nonresidential and multifamily site developments) to state that the Planning Board is allowed or directed to consider climate change and projected future conditions in determining the issuance of special permits. These considerations should be based on best available science and data on expected climate changes, including but not limited to the resilient MA Climate Clearinghouse.	High
		4. Amend § 198-31.1 (Stormwater Management) to be consistent and supplement the recommendations made for Chapter 194: Stormwater Management. In particular this should include modifications to require that all Standards (Article A) and Design Standards (Article C) shall be determined using best available data for calculating stormwater peak runoff rates, including those that take into account projected increases due to climate change (<i>Recommendation #6</i>). Submittal requirements (Article B) should also be amended with language noting the Town encourages or requires the use of green infrastructure practices or other nature-based solutions over traditional grey infrastructure, unless grey is justified (<i>Recommendation #5</i>).	High
		5. Conduct a more detailed review of this chapter to identify specific amendments to incorporate best practices for Low Impact Development (LID) and preservation of green infrastructure. This should include completing an analysis using the <i>Bylaw Review for LID & Climate-Smart, Nature-Based Solutions</i> tool developed by Mass Audubon or similar frameworks designed to assist Massachusetts communities, and drafting specific language for proposed amendments to existing implementing regulations.	Medium

Bylaw / Regulation	Code Citation	Final Recommendations	Priority
Planning Board	•		
Subdivision of Land	Chapter 322	Establishes the Town's rules and procedures for subdivision control as authorized by MGL c. 41, § 81K to 81GG (the Subdivision Control Law), as well as the protection and treatment of surface and groundwater and the treatment and control of drainage, erosion, and sedimentation.	
		Recommendations:	
		 Amend § 322-14 (Submission; contents; approval procedures; guarantees) to state that the Planning Board is allowed or directed to consider climate change and projected future conditions in determining approval of a preliminary plan or definitive plan of subdivision. These considerations should be based on best available science and data on expected climate changes, including but not limited to the resilient MA Climate Clearinghouse. 	Medium
		2. Amend § 322-24 (Protection of natural features) to include language regarding the features that provide natural and beneficial functions, including a reduction of risks posed by natural hazards and climate change (in addition to adding "attractiveness and value to the subdivision").	High
		3. Amend § 322-25 (Landscaping; street trees and tree belts) to limit the removal of some percentage of existing vegetation or trees on a site and/or require replacement through more robust tree planting standards (going beyond street trees). A primary objective for these revisions would be to preserve the Town's native tree canopy which provides many co-benefits, including those consistent with recommended climate adaptation measures such mitigation of the urban heat island effect. Such tree preservation standards or conditions should be developed in coordination with the Town's Tree Warden and based on existing examples or best practices from other communities. <i>Examples of communities in MA with notable tree preservation regulations include Concord, Newton, Wellesley, Lexington, Newburyport, and Somerville)</i> .	Low
		4. Amend § 322-26 (Stormwater Management) to be consistent and supplement the recommendations made for Chapter 194: Stormwater Management. In particular this should include modifications to require that all Design Standards (Article C) shall be determined using best available data for calculating stormwater peak runoff rates, including those that take into account projected increases due to climate change (Recommendation #6). Submittal requirements (Article B) and Conveyance of stormwater (Article F) should also be amended with language noting the Town encourages or requires the use of green infrastructure practices or other nature-based	Medium

Bylaw / Regulation	Code Citation	Final Recommendations	Priority
		 solutions over traditional grey infrastructure, unless grey is justified (<i>Recommendation #5</i>). 5. Update this chapter to include new definitions and specific requirements for applicants/developers to include an evaluation of climate change resilience and considerations for adaptation measures when deemed necessary by the Planning Board. At a minimum this should include amending § 322-14 Article D (Additional subdivision submittal requirements) to include language that specifies climate change and resilience to projected future climate conditions as a matter of environmental concern to be addressed under D.1 (Environmental impact analysis). Said analysis should include a summary table that identifies anticipated climate impacts and 	Medium
		 proposed mitigation or adaptation measures. 6. Conduct a more detailed review of this chapter to identify specific amendments to incorporate best practices for Low Impact Development (LID) and preservation of green infrastructure. This should include completing an analysis using the <i>Bylaw Review for LID & Climate-Smart, Nature-Based Solutions</i> tool developed by Mass Audubon or similar frameworks designed to assist Massachusetts communities, and drafting specific language for proposed amendments to existing implementing regulations. 	High
Zoning Board of Appea	als		
Comprehensive Permits, Rules and Regulations Governing	Chapter 493	Establishes the Town's procedures for applications to the Zoning Board of Appeals for comprehensive permits granted under the Anti-Snob Zoning Act (Chapter 774 of the Acts of 1969), MGL c. 40B, §§ 20-23, and the regulations promulgated thereunder.	
		 <u>Recommendations:</u> Amend § 493-5 (Public hearing and decision) to state that the Zoning Board of Appeals is allowed or directed to consider climate change and projected future conditions in determining approval of a comprehensive permit. These considerations should be based on best available science and data on expected climate changes, including but not limited to the resilient MA Climate Clearinghouse. 	Medium
		 Amend § 493-3 (Filing, time limits, and notice), Article A (3) to include requirements for applicants to include an evaluation of climate change resilience and considerations for adaptation measures when proposing projects in proximity to wetland resource areas, floodplain areas, or other areas of environmental or hazard concern. 	Medium

Note: The recommendations included in the Summary Table were determined to be especially supportive and consistent with following mitigation actions as identified in the Town's Hazard Mitigation Plan:

- Mitigation Action #1 Review and Amend Zoning Bylaws to Reduce Risk: Conduct review of existing zoning bylaws and identify specific opportunities to incorporate additional measures to reduce the long-term risk to life and property from natural hazard events. This includes but is not limited to the adoption of higher regulatory standards and/or incentives for development that considers projected changes in future climate and/or hazard conditions.
- Mitigation Action #4 Hazard Avoidance through Development Regulations: Minimize or eliminate the potential for future damage and loss through the incorporation of best practices for hazard mitigation and climate adaptation into existing development regulations under the Town's authority.
- Mitigation Action #5 Update Stormwater Regulations: Update the Town's stormwater regulations to emphasize low-impact development and green infrastructure, while considering projected precipitation/flooding conditions. This action is linked to the same recommendation included in the Town's Master Plan under Sustainability Goal #3.
- Mitigation Action #6 Incorporate Anticipated Future Conditions into Town Bylaws: Incorporate existing and projected future climate conditions into the Town's zoning bylaw to promote (re)development patterns that minimize exposure to known hazards. This action is linked to the same recommendation included in the Town's Master Plan under Sustainability Goal #3.
- Mitigation Action #16 Invest in Green Infrastructure: The Town shall identify and prioritize investments in nature-based solutions to mitigate natural hazards and a changing climate, including the use of low impact development and green infrastructure (bioswales, rain gardens, permeable pavement, tree plantings, green/blue roofs, water squares, etc.) that provide multiple co-benefits for the community that go beyond risk reduction. These techniques should be applied to all future infrastructure improvements to help protect the Town from the impacts of sea level rise, storm surge, and other flooding events, as well as extreme heat.
- Mitigation Action #19 Enhance Open Space with Green Infrastructure: Enhance the Town's open space and unused sites with green infrastructure (for example, rain gardens and permeable pavers) to improve the Town's stormwater management capabilities and minimize its vulnerabilities to flooding. This action is linked to the same recommendation included in the Town's Master Plan under Sustainability Goal #3.