Charles River Watershed Association

Wetlands Protection through Local Code

In the era of climate change, flooding is continuing to increase and spread as sea levels rise and precipitation becomes more intense and frequent. Extreme heat, storms and severe weather, and drought are also on the rise. Fortunately, there is a natural, cost-effective solution to all of these problems: wetlands. Though wetlands (like many natural resources) are affected by climate change, they also play a huge role in mitigating climate-related impacts.

The state Wetlands Protection Act ("the WPA") provides a baseline level of protection for most wetlands, streams, and rivers and gives local Conservation Commissions ("Con Comms") permitting authority over projects in and around these areas. However, in some cases, the state law doesn't go far enough. For example, the WPA does not mention climate change at all. The WPA also does not protect all local waterbodies. Municipalities can adopt local wetlands bylaws (or ordinances) that are more protective than the WPA—something that is becoming increasingly important as we adapt to the changing climate.

Local wetlands code provides an important tool for cities and towns to improve their climate resilience by ensuring that wetlands and other water resources are fully protected. Through local code, Con Comms can place conditions on projects requiring that they contribute to the community's ability to adapt to climate change and avoid further exacerbating impacts like flooding and heat islands. Local wetlands bylaws and ordinances can also be used to extend protections to isolated wetlands, intermittent streams, and all certified and potential vernal pools—resources that are critically important to a community's overall climate resilience.

Of the 35 cities and towns in the Charles River watershed, 28 already have local wetlands code on the books. However, only two—Arlington and Boston—mention climate change. In addition, some bylaws/ordinances protect isolated wetlands and intermittent streams, but many could be strengthened in these areas as well. The following provides recommendations on ways to enhance your existing code to expand protections of wetlands and therefore help make your community more resilient to climate change. And if you don't yet have a local wetlands bylaw or ordinance, consider developing one based on these recommendations and examples from similar communities with recently updated/adopted code.

Recommendations

- Require consideration of climate change impacts. Wetlands are critical to a community's climate resilience and the effects of climate change are a necessary consideration for any project. All applicants should be required to consider climate change impacts based on the best available data. *For example, to "enable the city to better protect against the effects of climate change," Boston's wetlands ordinance requires applicants to "integrate climate change and adaptation planning considerations into their project to promote climate resilience to protect and promote Resource Area Values and functions into the future."* Similarly, Con Comms should use the best available climate data when making

permitting decisions. ResilientMA.org provides a clearinghouse of tools and climate data to provide consistency to communities across Massachusetts.

- Ensure that your bylaw/ordinance applies to all water and wetland resource types that exist within your municipality. Your local wetlands code can extend to resource types not otherwise covered by the WPA or enhance protections for covered resources. Recommendations for specific resource types are discussed below. Including resource types and protections beyond the baseline requirements of the WPA in your local wetlands bylaw gives the Con Comm authority to review projects in these areas and place conditions as necessary.

    - Protect isolated wetlands. Isolated wetlands are not protected under the WPA, but are important for water quality, flood storage, and wildlife habitat. Communities can improve their climate resilience by protecting isolated wetlands.

    - Increase protections for vernal pools. Vernal pools provide critical breeding ground for numerous species, making them essential to biodiversity. However, not all vernal pools are protected by the WPA. By extending protections to all vernal pools (certified and potential) and providing buffer zones around vernal pools (including upland areas), communities can protect this important habitat.

    - Increase protections for intermittent streams. Like isolated wetlands, intermittent streams—streams that do not flow continuously throughout the year—are important for water quality, flood storage, and wildlife habitat. By enhancing protections for intermittent streams, communities can improve their climate resilience.

- Designate buffer zones, including no-disturb and no-build zones, to provide full protection to important resource areas. Buffer zones around the resource provide additional protections and can be tailored to the type of resource being protected. The most highly sensitive resources should have the largest buffer zones. A no-disturb zone should be established to restrict activities in close proximity to the resource. A no-build zone can be added to prevent new structures and impervious cover from being permanently installed.

References: Local Wetlands Code with Climate Change Considerations

Boston has a strong wetlands ordinance that provides a good model for other communities: https://www.boston.gov/sites/default/files/file/2019/12/Boston%20Wetlands%20Ordinance_1.pdf

Arlington's wetlands regulations incorporate climate change considerations: https://www.arlingtonma.gov/home/showpublisheddocument?id=41320

Funding

Funding to develop a climate-resilient local wetlands ordinance/bylaw and regulations in your community may be available through an MVP action grant. More information can be found at https://www.mass.gov/service-details/mvp-action-grant.

By protecting wetlands and water resources, we can make our communities more resilient to climate change. For more information or questions about developing or updating local wetlands code, contact Charles River Watershed Association at (781) 788-0007 or charles@crwa.org. Also check out the resources available on CRWA's website at www.crwa.org/climate-resilience-toolkit.html.