Buffer Options for the Bay

HOW TO WORK WITH COMMUNITIES: WHAT ARE THE OPTIONS FOR PROTECTING THEM?

Buffers and other natural areas are not only effective ways of providing ecosystem services, they can be less expensive than engineered, structural solutions. For example, green infrastructure is estimated to be three to six times more effective in managing stormwater than structural, engineered best management practices per $1,000 invested. (See BOB's coastal science literature review.) Communities can protect buffers through land conservation, working to revegetate town owned buffer areas, or adopting new or stricter land ordinances.

Once communities have decided which services they value, there are a range of buffer-related programs, policies, and regulations that could enhance the use of local knowledge and align the interests of private landowners with those values. First, a community can employ innovative land use techniques as found in the Innovative Land Use Handbook or in RSA 674:21. These include timing incentives, cluster development and environmental characteristics zoning. To understand more about towns' authority to use land use planning to protect buffers CLICK HERE.

Secondly, a community can designate important wetlands as Prime Wetlands (RSA 482-A:15) and once the designation process is complete the wetland will get a state-level protected 100-foot buffer.

The effectiveness of these policies is case-dependent and influenced by collective values, ecosystem services of interest, the level of landscape connectivity required to provide the services, and the magnitude and distribution of benefits and costs among landowners and the larger community.

(Download an overview of funding resources to support buffer conservation and restoration.)

Targeted Regulations, Education Programs, and Incentives

Communities can enact regulations or education programs that broadly target landowner behavior. While straightforward to administer, these can leave landowners bearing more of the management and opportunity costs for maintaining buffers. Or, given the characteristics and contexts of privately owned buffers, these regulations might fail to protect services of interests. While there are several ways to target land-use regulations, this could create higher administrative costs for the town.

If the number of landowners needed for conservation success is low and buffers providing high-quality ecosystem services can be easily targeted, then targeted incentives that encourage landowners to maintain buffers may be a better option. These could include payments for activities that maintain or improve ecosystem services, reduce the intensity of land use, or cease destructive land use altogether. Conservation easements—in the form of tax credits or deductions—are one such approach.

If many landowners need to be involved, then simple and non-targeted approaches may be more appropriate. Economic incentives that reduce land-use intensity, rather than eliminating all land uses, cost less and are much more likely to fall within conservation budgets.

Fixed Width Buffers

Many municipalities that enact local buffer regulations (in addition to those mandated by the state) require a fixed width buffer that can range from 25 to 250 feet, depending on the stream order. Fo more on buffer protection enacted at the municipal level in New hampshire, see the the 2015 Piscataqua Region Environmental Planning Assessment (PREPA).

Variable Width Buffers

Variable width buffers are another way to meet ecosystem service targets in situations when it is not feasible to maintain a fixed width buffer. These include

areas where adjacent land use and site and stream condition make a fixed width buffer infeasible. They also include places where restoration is not possible, for example, where habitat loss has led to a fragmented or asymmetrical buffers. Variable width buffers, specifically larger widths, may also be employed to offset such fragmentation or to protect highly-valued areas or those with steep banks, sparse vegetation, or highly erodible soils.

OPTIONS FOR PROTECTING BUFFERS

Option	Advantages	Considerations	Examples	BOB Resources
State Level: Maintain the state's current SWQPA	• People are generally familiar with the regulation. • Provides some consistency at state level for landowners and developers. • Allows for flexibility at local level to protect additional resources.	• Enforcement is inconsistent and under resourced. • Aligning state and local requirements can be confusing for boards, landowners, and developers. • Regulation's scientific basis is unclear. • Does not protect 85% of N.H. water bodies and associated buffers. • Can be difficult for communities to increase protections when residents feel the state would have a stronger standard if it were needed.	N.H. communities with no additional protection (as of 2013 when data last collected) include: Brookfield, East Kingston, Epping, Farmington, Hampton Falls, Middleton, Milton, North Hampton, Northwood, Nottingham, Rollinsford, and Sandown (PREP 2013).	• Policy Synthesis • Community Assessment

Option	Advantages	Considerations	Examples	BOB Resources
State Level: Expand or strengthen current SWQPA	• Enhance consistency across all jurisdictions for regulators, developers, landowners. • Likely increase the number of protected water bodies. • Rely on state expertise to determine buffer widths. • Could use fixed widths, variable widths, or a combination of the two.	• Requires communities, landowners, and developers to trust state level decision makers & scientists. • Might prevent local communities from increasing protection. • Require additional resources at the state level to implement and enforce.	Rhode Island	• Policy Synthesis • Community Assessment • Coastal Science Literature Review
Local level: Maintain a 100-foot, fixed width buffer ordinance	• Affirms local control and can align with values in the town. • Allows for consistency within the town for land owners and developers. • Provides the minimum required protection of most buffer functions.	• Can be considered arbitrary when site conditions have not been properly evaluated. • Creates inconsistency for developers working with towns that require different widths. • Based on science from across disciplines & around the country. • Not enough local studies to assess the effectiveness of different widths; it could be larger or smaller than 100 feet depending on vegetation, soils, slope, and land use. • Effectiveness will depend on what stream order or waterbody type the buffer is applied to.	N.H. Communities with 100-foot, fixed width buffers.	• Coastal Science Literature Review • Policy Synthesis • Community Assessment

Option	Advantages	Considerations	Examples	BOB Resources
Local or State Level: Variable width buffer ordinance	• Takes soils, slope, and surrounding landscape into consideration. • More scientifically defensible if based on mutually agreed upon information. • Can be linked to mapping resources to view different aspects of the site all at once.	• Requires local science and mapping efforts. Could delay a project. • Requires resource investments to implement and enforce. • Communities may not be equipped to implement this.	Washington State Island County	• Coastal Science Literature Review • Policy Synthesis
Multiple Scales: Conservation of buffer strips	• Protects all functions of the buffer that occur within the distance of the buffer strip. • Does not require additional science to implement. • Compensates landowners and developers fairly for lost opportunity costs. • Avoids costs to fix or restore problems later.	• Expensive option. • Removes land from tax base & out of potential use for private financial gain.	See Maps page to see where buffers are currently protected in your community	• Maps • Economic Literature Review
Multiple Scales:	• Protects and enhances all functions of the buffer. • Can be an opportunity to	• Changes views and options for agricultural use or some types of recreational use. • Dependent on willing land owner.	Conservation Enhancement Reserve Program Funding Sources to support buffer	• Policy Synthesis

Reforest or revegetate	engage citizens in action to protect water quality. • Avoids costs to fix or restore problems later. • Largely would occur without any regulation or transfer of property rights.		conservation & restoration Restoration case studies from around the country	
Multiple Scales: Tax incentives	• Compensates land owners for restricting use. • Opportunity to build public support for buffers.	• Costs to administer. • Requires public funding. • Need additional science and monitoring that has been well vetted to implement tax incentives that align with buffer function.	Washington State Island County	• Policy Synthesis • Economic Literature Review