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POLICY BRIEF

The Wetlands Banking Program

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Introduction

In spite of stringent federal, state and local wetlands regulations in Massachusetts, too many fragile ecosystems are still threatened by development. A primary reason for this is that the Commonwealth's wetlands mitigation regulations are poorly designed, difficult to implement and costly to regulate. In many permitting situations a new, privatized approach to mitigation—wetlands banking—could help ensure that our wetlands are more fully and cost-effectively protected and restored.

Existing federal, state and local regulations are intended to prevent a "net loss" of wetlands. Developers must demonstrate that they have made every reasonable effort to pursue practical alternatives that avoid impacting wetlands. Where such impacts are unavoidable, developers must demonstrate that they have made all reasonable efforts to minimize the effect. Any remaining effects must be lessened through the creation, restoration, enhancement or preservation of a wetlands area of equal or greater size (and "value") to the affected wetlands.

The Commonwealth's regulations and policies almost always result in on-site mitigation efforts. These efforts often either fail completely or fall far short of replacing the original functions and values of the wetlands. Wetlands banking could be a more effective approach to balance environmental protection with the needs of growing communities.

The Problem

Despite laws that mandate "no net loss," the Environmental Protection Agency estimates that wetlands nationally are being destroyed at a rate of more than 60,000 acres each year.

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Massachusetts is no exception. A 1998 University of Massachusetts-Amherst study assessed the success of wetlands mitigation regulations in the Commonwealth. Specifically, the compliance records of wetlands mitigation projects between 1983 and 1994 were considered. The results were discouraging. They show that 54.4 percent of wetlands mitigation projects during that time failed to meet state regulatory requirements:

- 22 percent of mitigation projects were never even started.
- 30 percent were of insufficient size or hydrology.
- 2.4 percent had insufficient wetlands plant cover.

In addition to poorly executed mitigation efforts, the study found that municipal conservation commissions were usually unable to meet regulatory obligations. At the end of a two-year monitoring period, conservation commissions must file a Certificate of Compliance, stating that mitigation and monitoring was conducted and that no further action is needed. In Massachusetts, only 34 percent of mitigation projects received Certificates of Compliance and 23 percent of those certificates were filed prematurely, before the end of the two-year monitoring period.

The Solution

A wetlands banking program would ensure that mitigation truly protects and enhances the Commonwealth's wetland resources. Wetlands banking is the creation or restoration of off-site wetlands that have previously been compromised. Restoration activities are undertaken to offset anticipated wetland impacts from development activities elsewhere. The credits created through the bank can then be used to counter unavoidable damage to other wetlands on the development site.

Under a wetlands banking system, private entities (the "bankers") purchase large, contiguous tracts of land on which they create or restore wetlands. The bankers assume responsibility for restoration and long-term maintenance, and earn mitigation credits for their efforts. These credits are calculated by the amount of acreage and type and value of wetland, by quantifying habitat or the wetland's physical and biological functions and social values. The bankers then sell these credits to public agencies, developers and others who must mitigate for their wetlands impacts. The sale of the wetlands credit legally transfers the liability for wetland mitigation from the developer to the wetlands banker.

Wetlands banking requires the formation of a mitigation banking review team (MBRT) to permit and approve wetland credit sales. The MBRT brings together relevant federal and state agencies, including the Army Corps of Engineers, the Environmental Protection Agency, the Massachusetts Department of Environmental Protection, the Executive Office of Environmental Affairs and others, and allows them to act as a single regulating agency. The MBRT approves plans for building a new bank, from hydrological and planting design to maintenance and monitoring arrangements. The MBRT also approves the number of mitigation credits that can be earned by the banker.

Wetlands banking unites sound environmental and economic practices to achieve better outcomes. It is a more cost effective way to restore natural resources. When properly administered, it can produce a greater ecological benefit than traditional on-site wetlands restoration. Wetlands banking would also eliminate the temporary loss of natural resources during development and assure long-term maintenance of these vital natural areas. Similar systems are employed in more than 30 states. The federal government encourages states to consider wetlands banking, issuing the first of several guidance documents in 1995, entitled "Federal Guidance for the Establishment, Use and Operation of Mitigation Banks."

Relevance to Massachusetts

Massachusetts legislation enacted in 2004 established a pilot wetlands mitigation bank to reduce the impact of transportation and other public works projects within the Taunton River Watershed. The costs of wetlands banking to the Commonwealth and local conservation commissions will be significantly lower than what is currently invested in wetlands mitigation

permitting, monitoring and enforcement, because hundreds of small mitigation efforts will be consolidated into a small number of large banks. The ecological functions provided by wetlands have inherent and substantial economic value to the Commonwealth.

As the 1998 University of Massachusetts study indicates, Massachusetts' current approach to mitigation results in a net loss of wetlands while fostering the creation or restoration of hundreds of smaller wetland tracts. These have less ecological and economic value than larger wetland areas. Another study published in the Journal of Environmental Management, determined that the annual economic value of the Charles River Basin wetlands is more than $95 million.[1]

Annual Economic Value of Charles River Basin

	(2003 US$)
Flood damage prevention	$39,986,788
Pollution reduction	$24,634,150
Recreational value: Fishing	$6,877,696
Amenity value of proximity	$216,463
Total	$95,487,051

Similar economic benefits are realized from wetlands throughout the Commonwealth. For example, the Massachusetts Water Resources Authority was spared a new $180 million water supply filtration plant because of natural waste treatment provided by protected wetlands around the Quabbin and Wachusett reservoirs. In the case of theCharles River, the U.S. Army Corps of Engineers concluded that protecting wetlands was far more cost effective than building new flood-control infrastructure. [3]

In addition to these direct economic benefits, wetlands banking offers the indirect benefit of a more predictable, streamlined wetlands permitting process. A recent study conducted by Governor Romney's office found permitting to be one of the top reasons businesses are reluctant to build or locate in the Commonwealth. Wetlands banking makes the permitting process more efficient and reduces uncertainty and delay for qualified projects. process more efficient and reduces uncertainty and delay for qualified projects.

Relevance to Massachusetts

Some broad lessons can be drawn from the comparison of existing wetlands protection methods and the potential of the wetlands banking approach.

• Larger Wetlands Mean Better Environmental Results

Mitigation banking involves the consolidation of small, fragmented projects into larger, contiguous sites. Experts, including the EPA, agree that greater ecological benefits are more likely if numerous isolated mitigation projects are consolidated into a single large parcel. In addition, because wetlands banks lead to the creation or restoration of larger wetland areas, they benefit from a confluence of scientific, planning, implementation, monitoring and management expertise that is simply not practical for individual mitigation efforts.

• Economic Drivers Ensure Environmental Benefits

The MBRT sets performance standards as a condition of allowing the bank to sell its credits. Thus, the wetlands bank must succeed ecologically over the long term for the private banker to receive a reasonable financial return. This motivates bankers to hire the best scientists, engineers and planners to ensure the success of their wetlands creation or restoration efforts.

• No Temporary or Net Loss of Wetlands

MBRT performance standards prevent the bank from selling all credits if the bank fails to create the planned types/functions of wetlands. Although a small percentage of credits can be sold before wetlands mitigation has started, most credits can be sold only after the mitigated wetlands meet certain ecological requirements. As a result, new wetlands are created or restored before development impacts occur.

• Assurance of Long-term Monitoring and Management

MBRT reporting protocols and a long-term monitoring plan require the banker to provide for long-term management and maintenance. If the wetlands cannot maintain their function after credits have been sold, bankers are legally required to revisit the mitigation until it is successful.

• Streamlined Permitting Process

Wetlands banks, because they are established in advance of development impacts, dramatically streamline the wetlands permitting process, reducing the time, uncertainty and cost to state transportation, housing and construction agencies and responsible developers.

• Leverages Private Funding

Wetlands banking leverages private investment to achieve superior environmental results. It also ensures private financing of resource management plans in perpetuity.

• Compliance with Federal Guidance

Wetlands banking in Massachusetts will allow the Commonwealth to comply with TEA-21 and Federal Transportation Agency guidance that establishes a preference for wetlands banking to the maximum extent practicable.

Works Cited

1. Thibodeau, F.R. and Ostro, B.D. (1981) An economic analysis of wetland protection, Journal of Environmental Management, 12, 19-30.

2. Mass Audubon, Losing Ground: At What Cost?, 2003.

3. Ibid.