



## DIVISION OF ECOLOGICAL RESTORATION

### Massachusetts Division of Ecological Restoration (DER) 2011-2016 Strategic Plan

#### EXECUTIVE SUMMARY



#### I. Introduction

The next five years will be pivotal for the newly created Division of Ecological Restoration (DER). DER is poised to energize and lead the discipline of ecological restoration in Massachusetts – serving as a national model. At this time there is a unique opportunity to expand and leverage a diverse array of funds and create new initiatives that will implement the evolving science of restoration. This Strategic Plan is intended to provide DER with a solid foundation for moving forward.

The Plan reflects discussions and advice from a spectrum of individuals, including our constituents and partners. At a one-day retreat, DER staff identified goals and needs and shared ideas to address the stressors that are impairing our wetlands, rivers and riparian habitats. Staff wisdom, advice, and judgment, together with feedback from partners, serve as the basis for this Plan and have blazed the trail ahead.

Implementation of the Plan will require DER staff to continue to develop and explore creative ways to partner with other state and federal government agencies and additional organizations, both public and private. DER also will continue to enlist assistance across state government and beyond to ensure successful implementation of the Plan and its continued evolution in response to new challenges and opportunities. The Plan underscores that DER's mission strongly supports the Department of Fish and Game mission and DER's success is integral to the success of the Department.

The Plan and DER staff retreat were facilitated and developed with guidance from the Consensus Building Institute (CBI) under a contract facilitated by the Massachusetts Office of Dispute Resolution.

## **II. The Definition of Ecological Restoration**

The Division of Ecological Restoration (DER) defines restoration broadly and inclusively. Restoration encompasses activities that will not only help to restore and enhance ecological functions and values through physical actions but also through timely education and technical assistance that leads to protection and preservation of ecosystems. Successful restoration results in ecosystem integrity, resiliency, repair, revitalization and remediation. Certain activities do not meet the definition of ecological restoration – these are based largely on the inability of actions to result in ecosystem self-sustainability and excessive reliance on operation and maintenance.

DER draws inspiration from the definition of restoration that was agreed upon by the Aquatic Habitat Restoration Task Force convened by the Executive Office of Energy and Environmental Affairs in 2008. The recommendations of the task force are articulated in the document: [Charting the Course: A Blueprint for the Future of Aquatic Habitat Restoration in Massachusetts](#), January 2008.

The report defines ecological restoration as assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed. The report lists nine attributes that provide a basis for determining when restoration has been accomplished. While the full expression of all of these attributes is not essential to demonstrate restoration, “...instead, it is only necessary for these attributes to demonstrate an appropriate trajectory of ecosystem development towards the intended goals or reference.”

## **III. DER Mission**

The mission of the Division of Ecological Restoration is to restore and protect the Commonwealth’s rivers, wetlands and watersheds for the benefit of people and the environment.

## **IV. DER Guiding Principles**

*Foster Local Awareness, Stewardship, and Capacity Building:* DER will support locally-led efforts to cultivate and sustain sound stewardship of watersheds and aquatic habitats through technical assistance, education, and outreach. Community stewardship is essential to the restoration and protection of aquatic ecosystems.

*Assist Natural Recovery:* DER will initiate or accelerate the recovery of degraded natural systems across multiple scales by reducing anthropogenic stressors, restoring natural structure and processes, and fostering self-sustainability and resiliency.

*Enhance Ecosystem Services:* DER will not only protect and restore ecosystems, but also enhance the services these systems provide – such as water purification, fisheries production and storm damage prevention – for the benefit of the communities that depend on them. (Enhancement of ecosystem services shall not be done to the detriment of other natural ecosystem functions or for the sole purpose of providing a service that would be better dealt with by addressing stressors at the source).

*Build Strong Partnerships:* DER will build and sustain strong partnerships with other public agencies, municipalities, private groups, citizens and academic and professional experts to advance its mission, leverage resources, and support shared environmental goals.

*Commit to Science and Monitoring:* DER will make decisions based on sound science and engineering, and will work to improve future performance and advance restoration science through rigorous evaluation and monitoring of its projects and programs.

*Be Accountable and Professional:* DER will promote a culture of professional performance informed by rigorous self-assessment and evaluation. DER will use open and transparent decision-making processes in its work and will have clear, achievable, and measurable goals.

*Plan Strategically:* DER will develop and utilize strategic planning approaches to identify, assess, and prioritize restoration and protection efforts that address ecosystem stressors and guide restoration and protection actions at multiple scales in an integrated, holistic manner.

*Be Responsive and Respectful:* DER will be responsive to citizen and colleague needs and requests, empowering people and groups to promote the mission of ecological protection and restoration consistent with our goals and objectives.



## **V. DER Key Strategies**

One overarching strategic recommendation is to build on DER’s existing strengths. DER staff are considered, “good connectors, great providers of technical assistance to communities and partners and as effective project managers.” Within this recommendation it was suggested that DER prioritize efforts, “in a way that is more strategic for desired outcomes on the ground or in the Commonwealth”. It was underscored that DER should not diminish its existing strengths as it pursues its mission. By strengthening our core competencies (Strategic Goal #1) DER is better able to implement the other strategic goals (Strategic Goals #2-6) described below.

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**STRATEGIC GOAL #1** Strengthen existing staff capacities and enhance Division core functions and activities.

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*Description:* DER's greatest resource is the technical knowledge, social capital, and commitment of its staff. DER must engage, train and nurture its staff to effectively advance its mission.

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**STRATEGIC GOAL #2:** Expand and strengthen technical assistance and outreach across the Commonwealth.

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*Description:* DER and especially the Riverways Program staff have successfully provided a host of technical assistance and outreach services that have engaged citizens, connected groups, supported partners and advanced social and technical capacity for restoration work in communities and ecosystems across the Commonwealth. DER should enhance these core outreach and technical assistance competencies and services and integrate/coordinate efforts across all DER programs and state agencies. DER efforts to foster citizen stewardship and protection of aquatic resources are integral to the success of restoration as defined by DER (see introduction). Preservation and protection are more cost-effective in the long run than restoring habitats after they have become degraded.

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**STRATEGIC GOAL #3:** Pursue greater physical restoration success across the Commonwealth by increasing sources of funding and building capacity internally and externally. Work to foster restoration as a core activity within and across the Commonwealth's environmental and natural resource agencies and in partnership organizations.

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*Description:* Given the limited resources of the Division and the Commonwealth as a whole, DER will only be able to achieve significant restoration results at large aquatic ecosystem scales by greatly increasing the leveraging of partnerships and sources of funding, personnel, and other resources. Thus, the Division will seek to build larger and more diverse partnerships and sources of funding to increase restoration capacity across the state.

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**STRATEGIC GOAL #4:** Restore sustainable stream flows across the Commonwealth by keeping water local, implementing flow restoration projects and strategies, supporting a sustainable stream flow policy and raising the profile of the issue of stream flow and balanced water budgets at all scales.

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*Description:* DER has established the programmatic and technical capacity to *not only* assess and protect flow but also to implement strategies to restore sustainable stream flow to stressed watersheds. DER has used a model of citizen-based evaluation of flow, creating a baseline of flow conditions (River Instream Flow Stewards (RIFLS)) to inform restoration action. Currently DER is coordinating three stream flow restoration projects that utilize techniques such as dam and reservoir management, water conservation, and water supply alternatives.

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**STRATEGIC GOAL #5:** Establish restoration and protection focus areas based on strategic planning to prioritize work efforts.

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*Description:* DER has limited resources and must strategically prioritize its restoration and protection efforts. To date DER has developed a series of planning tools (the Restoration Potential Model) and web based resources (The Great Marsh Restoration Plan) to help focus limited resources and leverage outside funding. DER needs to continue to refine and synthesize these tools as well as incorporate new planning tools to maximize the effectiveness and results of restoration and protection actions.

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**STRATEGIC GOAL #6:** Undertake a watershed or sub-watershed holistic restoration pilot project that integrates physical restoration, sustainable flow, water quality, and ecological protection measures. The pilot will be an example of holistic restoration and will also include climate change adaptation strategies.

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*Description:* DER has managed many successful restoration and stewardship programs and projects. However, these projects and programs have tended to focus on site-based restoration that may not have a larger impact across a sub-watershed or watershed. Furthermore, these efforts have tended to be demand driven rather than strategically focused on particular ecosystems or watersheds of need and priority. The Division will draw from all of its programs into a singular, focused, strategic effort to identify, plan, and implement projects with partners. The Division will seek to achieve restoration that incorporates elements of water balance, water quality, habitat, and connectivity, while serving as an example of a tangible climate change adaptation strategy



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