



Gulf of Maine Restoration & Conservation Initiative

A Priceless Ecosystem at Risk

The greater Gulf of Maine—with the coastal shorelines of Maine, New Hampshire, Massachusetts, and the Canadian Provinces of New Brunswick and Nova Scotia—is vital to human health and the region's economy: millions of people depend on the Gulf of Maine watershed for food, recreation, transportation, and drinking water. It is a unique ecosystem, whose beauty and biological diversity enrich the lives of all who live, work and visit here. Yet each day, the greater Gulf of Maine—its streams, lakes, bays, and beaches—is damaged by untreated sewage, toxic pollution, invasive species, loss of wildlife habitat, abandoned fishing gear and other human-caused impacts. The problems are serious and many of them have reached or are reaching crisis proportions. There are manageable solutions—some already in various stages of implementation—but if we don't move quickly the problems will only get worse and the solutions more expensive.

A Comprehensive Framework

The *Gulf of Maine Restoration and Conservation Initiative* is a collaborative effort, convened by the Working Group of the Gulf of Maine Council on the Marine Environment, that has developed a strategic framework for a unified and comprehensive restoration and conservation strategy for the bi-national Gulf of Maine. The framework identifies seven key “issue areas,” including:

- 1) Coastal Fish and Wildlife Populations and their Habitats
- 2) Coastal Water Quality
- 3) Invasive species in the coastal and marine environment
- 4) Abandoned fishing gear and other debris
- 5) The impacts of climate change
- 6) Long-range planning, science, and communication in collaboration with states, Tribes, NGOs and other stakeholders
- 7) Measuring and monitoring improvements (or declines) over time.

Federal Funding Required

The scale of funding needed to address the many problems impacting the Gulf of Maine watershed is far beyond the means of states, provinces, municipalities, NGOs and the philanthropic community, and far above historical levels of federal investment in regional restoration and conservation programs on both sides of the border. Although there is much good work underway, truly significant progress will require substantial increases in federal funding. For example, regional aquatic ecosystems in the US have had considerable success in procuring increased federal funding by organizing and advocating around “comprehensive” restoration strategies. The current version of HR 2996 provides \$678 million for the implementation of restoration plans for the Great Lakes, Everglades, Chesapeake Bay, Puget Sound, Coastal Louisiana, San Francisco Bay, Gulf of Mexico, and several others. Of those funds, \$475 million alone is dedicated to restoration of the Great Lakes, the result of a well-funded advocacy campaign by the Healing Our Waters®--Great Lakes Coalition (a coalition of over 100 zoos, aquariums, hunting, fishing, business and environmental groups). Unfortunately, the Gulf of Maine is not considered in HR 2996 and is likely to receive no additional federal funding in 2010. The reason for this, as explained by House and Senate staffers, is that until now

there has been no “Comprehensive Plan” for the Gulf of Maine, and no advocacy effort beyond the needs of individual programs and organizations.¹

The Need for a Coalition of NGOs

Federal, provincial and state governments can play only a very limited role in the vital work of advocating for the federal funding needed to implement the plan. Up to this point, the *Greater Gulf of Maine Restoration and Conservation Initiative* has mainly involved state and federal agencies. A vital next step is to engage the NGO and business communities throughout the region to help create and then advocate for an actual *Restoration and Conservation Plan*. (Although the “framework” identifies key issue areas, it does not identify individual programs and projects and does not establish priorities, timelines, and budgets). A parallel effort is needed in Canada.

An Opportunity for the Philanthropic Community to Leverage Federal Funding

As has been demonstrated by the success of the Great Lakes and other major aquatic ecosystems in procuring significant federal funding for restoration, a relatively small amount of philanthropic investment can yield enormous returns. The coalition for the Great Lakes has been funded since 2004 by a five-year, \$5 million grant from the Wege Foundation, and has resulted in a \$475 million appropriation for the Lakes in the 2010 federal budget. And this is only the beginning: President Obama pledged \$5 billion for the Great Lakes, and the restoration plan (“The Great Lakes Regional Implementation Plan”) calls for \$26 billion in federal investment.

Up to this point, the *Greater Gulf of Maine Restoration and Conservation Initiative* has been developed through volunteers and the generous cooperation of state and federal agencies and a few NGOs in the states. Hard work, good fortune and chance opportunities have resulted in a significant amount of progress, and an important head start toward the much-needed US federal appropriations. The Maine Community Foundation has recently provided some seed funding that will help ensure that the process moves forward on both sides of the border with the formation of a coalition(s), the completion of a Gulf of Maine Comprehensive Restoration and Conservation Plan, and a viable and sustained advocacy effort by the NGO community.

Timeline and Benchmarks

The work of building a coalition around a *Gulf of Maine Restoration and Conservation Plan* must begin in earnest right away. Existing templates for coalition by-laws and procedures (from the Great Lakes and other ecosystem campaigns), and the fact that many national NGOs are already engaged in the “America’s Great Waters” effort (see footnote), will make the work a lot easier and faster. It is expected that recruiting and organizing at least 30 national, regional, and local NGOs and business organizations working in the Gulf of Maine region can be accomplished during September and October 2009, with a convening summit conference to take place in early November 2009. The Summit will have a number of desired outcomes:

- 1) Adopt coalition structure, goals, and objectives
- 2) Establish working committees (steering committee, executive committee, communications, etc.)
- 3) Adopt “Framework” and process for completion of a *Gulf of Maine Restoration and Conservation Plan*
- 4) Prepare a 2011 US appropriations request to be submitted before the end of 2009.

¹ This year the National Wildlife Federation convened an “America’s Great Waters” program to bring all the individual regional restoration advocacy campaigns together for a more effective presence on Capitol Hill. Although the Gulf of Maine is now nominally a part of this program, the lack of a formal comprehensive plan and a viable coalition for the Gulf of Maine makes us a “junior partner” at best.

Questions and Answers

1. How does this initiative relate to the current habitat and other restoration work already planned or underway in the Gulf of Maine?

The *Greater Gulf of Maine Ecosystem Restoration and Conservation Initiative* is intended to build on the good work already underway by numerous agencies and organizations active in the Gulf of Maine, bringing many diverse efforts and plans under a single “comprehensive plan” on a scale similar to what is already in place for other major aquatic ecosystems, including Great Lakes, Chesapeake Bay, Everglades, Louisiana Coast, and Puget Sound. The main benefit of such a plan is to ensure that the Gulf of Maine region gets equal consideration as US federal funding for ecosystem restoration gets allocated. The 2010 Federal Budget line item of \$475,000,000 for Great Lakes restoration provides a powerful example of the importance of having a comprehensive plan in place.

2. How will the comprehensive plan be used?

Once a comprehensive plan has been created², all Gulf of Maine region stakeholders will need to work together to ensure that federal, state, and provincial governments provide sufficient funding to fully implement the plan. This will require a very significant education and outreach effort similar to that undertaken for the Great Lakes restoration strategy by the Healing Our Waters®--Great Lakes Coalition. It is a process in which private citizens, foundations, NGOs (Non-governmental Organizations), and businesses will play a major role.

3. How were the “issue areas” determined?

In the spring of 2009 a “Steering Committee” with 20+ participants formed to take on the tasks of determining the need, scope, and scale of a “comprehensive strategy”, and to design an inclusive process by which the strategy would be developed, starting with the creation of the table of issue areas relevant to the Gulf of Maine. (see below)

4. What is the makeup of the Steering Committee?

Currently the Steering Committee is composed of 20+ members from numerous state and federal agencies, NGOs, and private citizens, including:

- Kathleen Leyden and Slade Moore of the Maine Coastal Program
- Ted Diers of the New Hampshire Department of Environmental Services
- Bruce Carlisle, Hunt Drury and Jan Smith of the Massachusetts Office of Coastal Zone Management
- David Keeley of the Gulf of Maine Council
- Stewart Fefer of the US Fish and Wildlife Service Gulf of Maine Coastal Program
- Mel Cote, Ann Rodney, and Diane Gould of the US Environmental Protection Agency
- John Catena and Eric Hutchins of NOAA Restoration Center
- Laurie Allen of the National Wildlife Federation
- Susan Little Olcott of the Ocean Conservancy
- Peter Lamb of the New Hampshire Charitable Foundation
- Pam DiBona of the New England Aquarium (New England Ocean Science Education Collaborative)
- Joe Payne and Peter Milholland of Friends of Casco Bay
- Peter Alexander and Amy Bodwell of Talking Conservation.

In addition, there were several invitees who were not able to attend the first full meeting of the steering committee on June 5, 2009, including Sandy Buck of the Maine Environmental Funders’ Network, Sally Yozell of The Nature Conservancy, and Anita Hamilton, as a Canadian observer for the Gulf of Maine Council on the Marine Environment. (The Steering Committee is not intended as an exclusive group, and the process of developing the comprehensive strategy is specifically intended to be open to all stakeholders.)

² It is contemplated that there will be a parallel plan and process on the Canadian side of the border, and that implementation of the two plans will be integrated and coordinated.

Gulf of Maine Restoration and Conservation Initiative: scope of restoration and conservation actions.

The scope of restoration and conservation actions for this initiative will include the following focus areas, which are not listed in order of priority. (Illustrative examples of actual issues and potential responses are provided.)

Protect and Restore Coastal Fish and Wildlife Habitat	
Examples of Issues	Potential responses
Salt marsh ecological functions and services to people are degraded	Restore natural hydrology, morphology, and control invasive plant and animal species; Use acquisition, regulation and other means to protect adjacent uplands
Desalination plants located in estuarine systems destabilize fragile systems.	Conduct monitoring and improve permitting for desal. Plants
Imperiled/depleted populations require heightened management vigilance and restorative action	Conservation and restoration of waterbirds, fisheries, and other species that historically represented a beneficial influence on ecosystem function, local economies or biological diversity.
Dams, road crossings, loss of native riparian areas and other barriers to aquatic connectivity hinder fish restoration efforts and alter aquatic ecosystems	Develop coordinated restoration programs that prioritize the range of restorative actions and facilitate implementation
upland plant and animal species at risk	Regulate, negotiate conservation easements & acquire land/islands
Poor water quality/human disturbance degrades aquatic communities	Control nutrient enrichment, sedimentation, anthropogenic benthic disturbance
The scale of toxic contamination throughout the foodweb is poorly understood	Develop and implement a comprehensive characterization of fish and wildlife contamination
Releases of airborne pollutants hinder fish and wildlife recovery efforts	Integrate comprehensive pollutant abatement strategies into restoration efforts
Toxic contaminated sites degrade human uses of fish and wildlife	Use remediation technologies to reverse site contamination
Unlike terrestrial areas, coastal/fisheries management lacks availability and integration of critical habitat data [move to measure and monitor?]	Develop a gulf-wide program to comprehensively map nearshore areas
Lack of integration of the many diverse restoration/conservation efforts limits overall ecological benefit	Integrate restoration/conservation programs to coherently and effectively address the full suite ecosystem challenges

Improve Coastal Water Quality	
Examples of Issues	Potential responses
Ecologically comprehensive estuarine water quality assessments are lacking	Design and implement water quality characterizations that inform ecosystem recovery efforts at relevant geographic scales
Failing septic systems contribute N and P to coastal waters.	Repair systems, connect to sewage treatment
Inadequate public sewage treatment and combined sewer outfalls discharge nutrients.	Make upgrades based on ecologically appropriate standards
Water quality degraded by non-point sources including air deposition	Apply BMPs, land use regulation, and target sources through public/political processes

Prevent Introduction and Control the Spread of Invasive Species in the Marine Environment	
Examples of Issues	Potential responses
Distributions of many invasives poorly understood; capacity to act is uneven	Implement “early detection and rapid response” protocols
Introduction of invasive species continues across the region.	Implement ballast water discharge measures

Control Discharge and Remove Marine Debris	
Examples of Issues	Potential responses
Abandoned fishing gear hazardous to living resources	Remove gear on sea floor & in water column
Inadequate facilities for fishermen to dispose of waste oil	Provide waste oil collection facilities in harbors
Debris along shorelines hazardous represents public health and ecological risk	Remove and dispose of debris

Promote Ecosystem Resilience to Climate Change	
Examples of Issues	Potential responses
No coordinated establishment of climate change readiness priorities/policies	Reassess statewide programs/policies in light of climate change projections
Lack of data and standardized methods for vulnerability assessments of at-risk coastal natural resources and infrastructure	Design vulnerability assessments, collect baseline data; implement monitoring and modeling
No adaptation or resiliency plans for natural resources important to human communities	Prioritize at-risk resources for acquisition and regulatory protection to facilitate resiliency in coastal ecosystems and economies
Land-use guidelines do not adequately consider predicted changes associated with climate change	Update zoning, flood maps, open space ordinances
Increases in storm intensity/frequency degrades water quality	Reassess stormwater/discharge guidelines
Climate-driven geographic shifts in plants and animals threaten ecosystem integrity and coastal economies	Reduce stressors (e.g. overexploitation, habitat alteration and loss) to species

Long-range planning, science, and communication	
Examples of Issues	Potential responses
Existing restoration and conservation plans are not integrated	Integrate planning through improved collaboration and communications between agencies, NGOs, and other stakeholders
Plans may not be responsive to, or adjusted for changes and developments in climate, politics and other conditions	Develop protocols for assessing and adjusting restoration plans over time
Messages about restoration and conservation are inconsistent, and sometimes confusing or even counter to each other	Develop shared communications tools, resources and messages, provide communications training as needed to participating organizations
Numerous aspects of the coastal and marine environment remain unexamined by science, and their implications and interactions little understood	Conduct gap analysis and set priorities for needed research.

Measure and Monitor Improvements (or decline) Over Time

Examples of Issues	Potential responses
Offshore facilities – pipelines, wind farms, e.g. – are in our future, and yet we are not prepared to predict or monitor their impacts.	Conduct gap analysis and assessment/survey, then integrate data on benthic, pelagic (not only commercial spp.), and seabird populations.
Insufficient data currently exists on improvements or declines in water quality throughout the Gulf	Develop and implement enhanced water quality monitoring protocols, and measure improvements (or decline) related to specific conservation/restoration activities
Water quality goals insufficiently address the scope of ecosystem reliance on clean waters and the gap between current and pre-impairment conditions	Create water quality goals that are relevant to the range of ecosystem/human needs and are informed by historical baselines
There is a profound need for greater understanding of interactions of species that drive ecosystem stability.	Develop and implement research protocols to enhance understanding of species interactions and inform conservation/restoration priorities.
No protocols exist for assessing improvements to fish and wildlife populations resulting from each habitat restoration strategy	Develop and implement ecologically relevant goals and protocols for measuring and monitoring fish and wildlife populations.
The frequency and scope of fish and wildlife toxic contamination monitoring does not sufficiently support identification of trends or protection of public health.	Expand current efforts to monitor toxics.

If you are interested in learning more about this effort please contact Peter Alexander (Talking Conservation at (802) 380-3080 or peter@talkingconservation.org) or David Keeley (Gulf of Maine Council at (207) 549-3598 or David@thekeeleygroup.com).