

GOALS	RECOMMENDATIONS	Action to Date	Future Action
<p>1. Invest in Maine's Capacity to Monitor and Investigate the Effects of Ocean Acidification and Determine Impacts of Ocean Acidification on Commercially-Important Species and the Mechanisms Behind Those Impacts</p>	<p><i>1.1. Enhance monitoring and create a database sufficient to support the development of regulatory and non-regulatory approaches to reduce and limit nutrients and organic carbon from sources that are contributing significantly to acidification of Maine's marine waters. Enhanced monitoring should begin in one or more pilot estuaries where impacts are presently occurring.</i></p>	<p>The Town of Brunswick in Partnership with Fair Winds Inc., monitored PH levels in several different clam flats consistently over the course of one year. We use this information as part of a larger strategy to help determine intertidal areas that would be more amenable to shellfish reseeded projects.</p>	<p>This monitoring work was conducted under a Maine Coastal Program grant and it is with hope that this will become a part of the Towns resource management strategy and completed EOY.</p>

<p><i>1.2. Expand monitoring of ocean acidification to establish its natural variability and to detect trends in water chemistry and related biological responses.</i></p>		
<p><i>1.3. Develop new tools with which to assess and understand acidification and its impacts in Maine waters.</i></p>		<p>Development of an interactive application where PH values can be plugged in and immediate ecological consequences can be viewed. I'm dreaming here.</p>

1.4. Determine the causes and relative importance of acidification in the waters and sediments of Maine.

1.5. Identify the impacts of acidified waters and sediments on Maine's commercial species.

2. Reduce Emissions of Carbon Dioxide	<i>2.1. Strengthen coordination and continue participation with existing national, state, and regional initiatives regarding the reduction of atmospheric CO₂ levels.</i>		
	<i>2.2. Encourage key leaders and policymakers to synchronize in establishing a comprehensive and unified strategy to reduce carbon dioxide emissions.</i>		

	<p><i>2.3. Expand actions at the state and local levels that may help in reducing CO₂ emissions.</i></p>		
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3. Identify and Reduce Local Land-Based Nutrient Loading and, Organic Carbon Contributions to Ocean Acidification and Freshwater Runoff by Strengthening and Augmenting Existing Pollution Reduction	<i>3.1. Identify and reduce nutrient loading and organic carbon from point source and nonpoint discharges determined to cause or contribute to ocean acidification.</i>		
	<i>3.2. Assess the need for water quality criteria relevant to ocean acidification.</i>		

Efforts and Making Groundwater Recharge a Land Use Priority.

<p><i>3.3. Ensure that state staff and other practitioners are working with the best information and most effective technology.</i></p>		
<p><i>3.4. Investigate incentive programs for pollution and freshwater runoff reduction.</i></p>		
<p><i>3.5. Support and reinforce current planning efforts and programs that address the impacts of nutrients and organic carbon and freshwater runoff into coastal waters.</i></p>		

	<p><i>3.6. Enhance education and outreach programs that provide landowners with information about best practices for reduction of nutrient pollution.</i></p>	<p>The town has invited guest speakers to discuss OA. Also the Town utilizes local TV to replay those presentations on a weekly programming basis. The town also publishes a coastal waters guide which discusses the impacts of OA and how to reduce the landowners footprint.</p>	
<p>4. Increase Maine's Capacity to Mitigate, Remediate and Adapt to the Impacts of Ocean</p>	<p><i>4.1. Preserve, enhance and manage a sustainable harvest of kelp, rockweed and native algae in bivalve areas and adjacent shoreline, and preserve and enhance eelgrass beds.</i></p>	<p>The establishment of more surgically managed municipal shellfish management areas. Development of shellfish sustainability plans to help with efforts to maintain current shellfish populations.</p>	

Acidification

<p><i>4.2. Encourage bivalve production to support healthy marine waters.</i></p>	<p>Additional shellfish aquaculture should be encouraged to help offset acidification. for every 20 thousand oysters harvested 1 coastal household annual nitrogen production is removed.</p>	<p>There should be consideration of issuing carbon credits for to oyster farms for their efforts to help sequester nitrogen.</p>
<p><i>4.3. Spread shells or other forms of calcium carbonate (CaCO₃) in bivalve areas to remediate impacts of local acidification.</i></p>	<p>We have taken shell hash from areas of high density and distributed it non productive intertidal shellfish growing areas to help encourage buffering.</p>	<p>Continue to encourage a state of maine shell recycling program. Having this ability to recycle and process bivalve shells for reintroduction will help move mitigation in the right direction</p>
<p><i>4.4. Increase the capacity of the fishing and aquaculture industries to adapt to ocean acidification.</i></p>	<p>As more stationary aqua farms develop having a standardized way of monitoring acidification in the area is critical to understanding acidification dynamics.</p>	
<p><i>4.5. Identify refuges and acidification hotspots to prioritize protection and remediation efforts.</i></p>	<p>See Above</p>	

	<p><i>4.6. Encourage the enhancement and creation of research hatcheries.</i></p>		
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5. Inform Stakeholders, the Public, and Decision-Makers about Ocean Acidification in Maine and Empower Them to Take Action.	<i>5.1. In addition to providing the commission's report, its key findings should be communicated to the Governor, Maine's legislative leaders, Maine's Congressional delegation, the press and the general public in a series of briefings by commission members.</i>		
	<i>5.2. Continue efforts to increase the understanding of ocean acidification among key</i>		

stakeholders, targeted audiences and local communities to help implement the commission's recommendations.

5.3. Enhance the existing communication network of engaged stakeholders, state agency representatives and the research community.

5.4. Develop, adapt and use curricula on ocean acidification in K-12 schools and institutes of higher education and increase

The Town Marine Resources Officers have OA as part of their annual Junior High presentations in efforts to educate students at the Junior High School

*interdisciplinary university
programs to equip young leaders
with the skills to find solutions to
complex multidisciplinary
problems such as ocean
acidification.*

6. Maintain a Sustainable and Coordinated Focus on Ocean Acidification.	<i>6.1. Create an on-going ocean acidification council.</i>		

YOUR NAME:

YOUR ORGANIZATIONS NAME: