

Gulf of Maine Council on the Marine Environment

Canada and the United States working together for a healthy environment

Framework for Action



www.gulfofmaine.org



Gulf of Maine Council Mission

To maintain and enhance environmental quality in the Gulf of Maine and to allow for sustainable resource use by existing and future generations.

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Introduction



The Gulf of Maine is a world class natural resource shared by the Provinces of New Brunswick and Nova Scotia, and the States of Maine, New Hampshire, and Massachusetts.

In 1989, the region's Premiers and Governors came together to create the Gulf of Maine Council on the Marine Environment as a regional forum to address issues affecting communities, the environment and the economy of this unique ecosystem.

With over 25 years of accomplishment, the Gulf of Maine Council on the Marine Environment continues to provide an important Canadian-American collaboration of government and non-governmental partners working to maintain the rich cultural heritage, economic resources, and unique natural habitats that make up the Gulf of Maine.

The Gulf of Maine Council's role as a leader for transboundary collaboration is even more important today as communities strive to adapt to shifting weather patterns, increasing temperatures, altered ocean chemistry and sea level rise. At the same time, population growth and increasing demand for resource use present additional management challenges. Every five years, the Council renews its commitment to working in partnership toward a healthy Gulf of Maine ecosystem. With this 2018 – 2022 Framework for Action, the Gulf of Maine Council sets forth our shared vision for sustaining a healthy Gulf of Maine for future generations.

The vision and goals in this Framework provide a foundation for actions outlined in Work Plans which are updated every two years. The Gulf of Maine Council is also pleased to share key accomplishments toward achieving our mission during the past five years.



About the Gulf of Maine Council



The Gulf of Maine Council on the Marine Environment is a Canadian-American partnership of government and non-government interests. The Council's mission is to maintain and enhance environmental quality in the Gulf of Maine and to allow for sustainable resource use by existing and future generations.

A vital role of the Council is to serve as a forum to exchange information and tools, innovative ideas, and lessons learned across jurisdictions and between the US and Canada. The Council leverages regional skills and expertise, thus making more rapid progress in improving stewardship of the Gulf's resources. By hosting workshops and learning opportunities, the Council promotes understanding and shared solutions to the most pressing environmental issues facing the region.

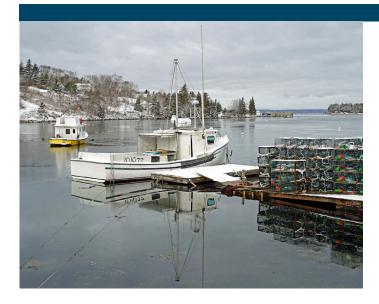
Gulf of Maine Councilors are leaders of state, provincial and federal agencies, First Nations, non-governmental organizations and the private sector. The Gulf of Maine Council fosters consensus-based decision making and collaboration among a wide range of parties with an interest in the Gulf. Its meetings are open to the public and its activities reflect diverse public input.

Representatives of government agencies, academia, businesses and non-government organizations participate in the Council's many committees and initiatives.

Leadership of the Council rotates every two years, with one of the five states or provinces serving as the Secretariat and coordinating the Council's work. Jurisdictions have the option of inviting federal partner agencies to assist or co-lead during their Secretariat. Contract staff located around the region work with the Council to help accomplish goals, and non-profit associations support the Council in both Canada and the United States. The 2016 – 2018 New Brunswick Secretariat will be passed to the Maine 2018 – 2020 Secretariat in June 2018.



About the Gulf of Maine Council



Mission Statement

To maintain and enhance environmental quality in the Gulf of Maine and to allow for sustainable resource use by existing and future generations.

Purposes of the Council

The Gulf of Maine Council continues to operate around the following three purposes set forth in 1989 by the Governors of Massachusetts, New Hampshire and Maine, and the Premiers of New Brunswick and Nova Scotia.

1. Integrated Watershed Management

Facilitate integrated watershed, coastal and ocean management. The Council fosters an ecosystem-based management approach. It works to ensure decision-makers possess the necessary information to manage human effects on the ecosystem, to preserve ecological integrity and to sustain economically and socially healthy human communities.

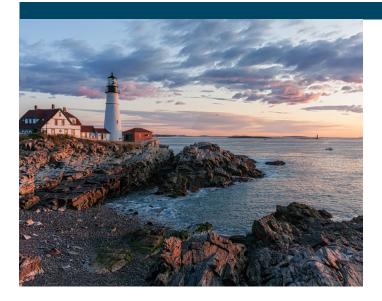
2. Regional Forum to Promote Stewardship

Enable the region's governments to be more effective stewards. States, provinces and federal government agencies become more effective stewards by working together in a regional forum to learn from each other and try new approaches.

3. Strong Partnerships to Leverage Opportunities

Develop and sustain strong partnerships. The Council promotes effective and lasting partnerships among government agencies and with local and regional organizations to enhance and leverage opportunities for addressing issues of regional concern.

About the Gulf of Maine Council



Guiding Principles

These four principles help guide the Gulf of Maine Council in decisions related to the Gulf of Maine ecosystem. Each principle is congruent with other international protocols, as well as state, provincial and national legislation in Canada and the United States.

1. Ecologically Sustainable Development

The Council seeks to meet the region's current social, cultural and environmental needs without compromising the needs of future generations. Working in partnership with others, it strives to sustain ecological processes and enhance the region's quality of life.

2. Ecosystem-based Planning and Management

The Council supports collaborative management that integrates economic and ecological values and objectives, emphasizing natural rather than political boundaries.

3. Environmental Protection through Precaution

The Council supports conservation of the coastal and marine environment, and urges its members to proceed with caution when scientific information is incomplete to avoid environmental degradation.

4. Public Information and Participation

The Council is committed to a participatory process that informs and engages the public in setting priorities, forming policies and pursuing efforts to conserve the Gulf's environment.

Role and Sphere of Influence

The Gulf of Maine Council is a transboundary organization uniquely positioned to focus on issues that require or benefit from regional collaboration between Canada and the United States.

The Council also provides an opportunity for collaboration and networking across New Brunswick, Nova Scotia, Maine, New Hampshire and Massachusetts. While the Council does not have direct regulatory or policy-making authority of its own, its goals and outcomes are congruent with state, provincial and federal priorities. One of the primary strengths of the Council is in bringing partners together toward the shared goal of a sustainable and healthy Gulf of Maine. As a convening organization, the Council plays a valuable role by acting as the catalyst for Gulfwide efforts that may ultimately be led by other member or partner organizations.

During an organizational assessment conducted in 2015, the Council reaffirmed its mission and principles, while also identifying the following two highest priority types of work for the Gulf of Maine Council to engage in going forward.

Top Priority Types of Work

 Multi-jurisdictional collaboration, facilitation and networking

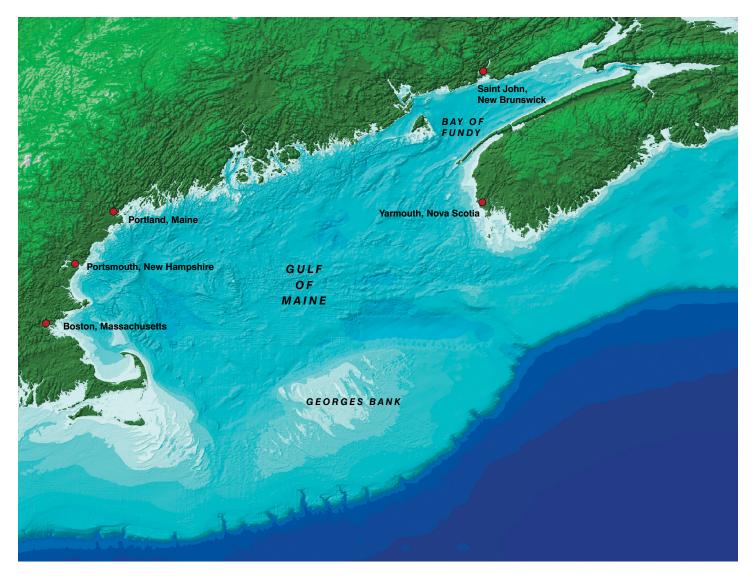
Regional sharing of resources, best practices, and capacity building across international and jurisdictional boundaries



Gulf of Maine Council / Framework for Action

About the Gulf of Maine

The Gulf of Maine, which includes the Bay of Fundy, is one of the most dynamic and productive marine ecosystems in the world. The Gulf watershed encompasses a vast area including 7,500 miles of coastline in New Brunswick, Nova Scotia, Maine, New Hampshire, and Massachusetts draining into 36,000 square miles of semi-enclosed coastal seas in North America.



Gulf of Maine Council / Framework for Action

About the Gulf of Maine

Economic Vitality

Fisheries in the watershed are a strong economic driver for people and communities around the Gulf of Maine. Each year, commercial fisheries generate between \$900 million to \$1.3 billion US dollars and aquaculture generates approximately \$240 million US dollars. Tourism, boatbuilding, shipping and marine trades also support local economies in the Gulf.



Abundant Wildlife and Natural Resources

The Gulf of Maine watershed is home to a wide variety of wildlife from migratory shorebirds to fish, shellfish and marine mammals. The region's rich waters support marine life ranging from plankton to endangered species such as the North Atlantic right whale. Unique habits include sandy banks, coastal salt marshes, rocky ledges and deep basins.







Gulf of Maine Council / Framework for Action

About the Gulf of Maine





Rich Cultural Heritage

Maritime heritage, coastal beauty, and abundant natural resources enrich the lives of residents and visitors to the Gulf of Maine's diverse coastal and watershed communities. From historic lighthouses to coastal fishing communities, the unique features of the Gulf of Maine have created a special 'sense of place' for those who live, work and play in the region.

Importance of Stewardship

The beauty and natural resources of the Gulf of Maine watershed have fostered a culture of stewardship to ensure that these resources are sustained for future generations.

The Gulf of Maine Council is a valued leader for bringing government and nongovernmental partners together in support of a shared vision for a healthy and sustainable Gulf of Maine ecosystem.





Gulf of Maine Council / Framework for Action

Vision, Goals and Outcomes 2018-2022

The vision statement, goals and outcomes set forth in this Framework for Action provide the foundation for targeted activities and initiatives outlined within two-year work plans. Work Plans are published and updated independently from this Framework for Action to allow for a more dynamic and adaptable approach to achieving the Council's vision, goals and outcomes.

Vision Statement

We envision a healthy and resilient Gulf of Maine where people and aquatic life thrive. The Gulf of Maine Council vision statement guides efforts to achieve three long-range goals and their associated outcomes.

Goals

- 1. Restored and Conserved Habitat
- 2. Environment and Human Health
- 3. Sustainable and Resilient Communities

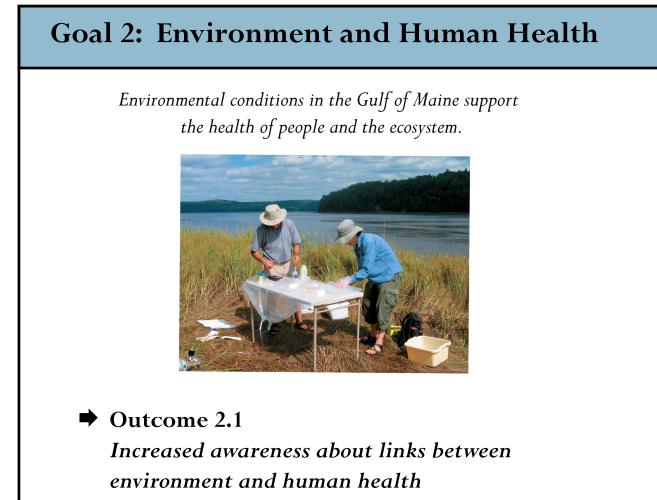
Goal 1: Restored and Conserved Habitat



Habitats in the ocean and along the coast, including the rivers that flow to the Gulf, are healthy, productive and resilient. They support rich aquatic life and a vibrant, sustainable ocean economy.

- Outcome 1.1
 Habitat Restoration
- Outcome 1.2
 Habitat Conservation
- Outcome 1.3
 Water Quality
 Protection
- Outcome 1.4
 Climate Adaptation

Vision, Goals and Outcomes 2018-2022



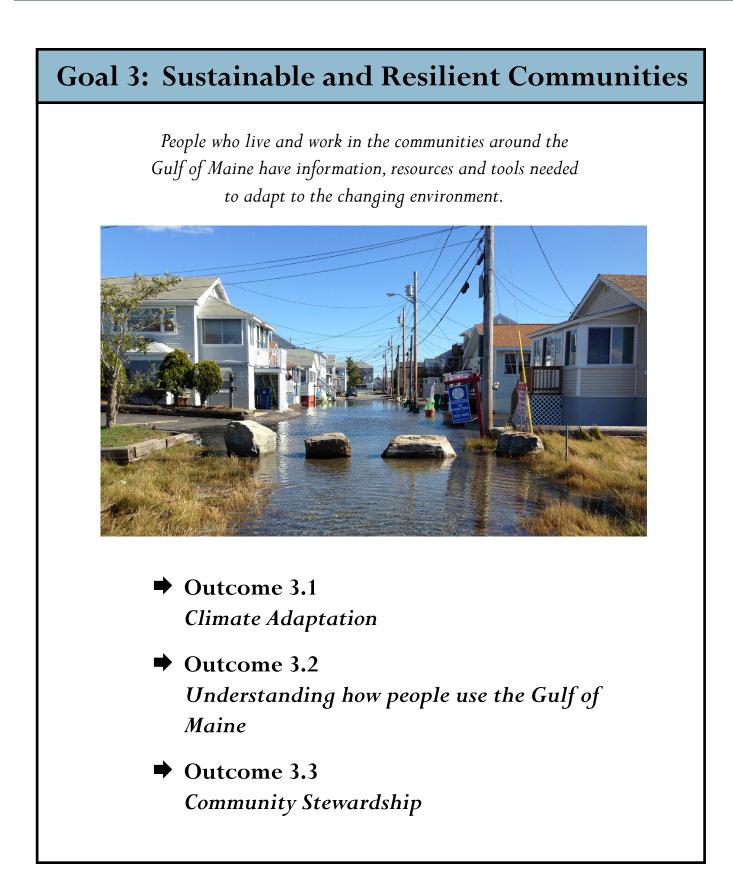
➡ Outcome 2.2

Identification and sharing of knowledge about emerging issues / risks.

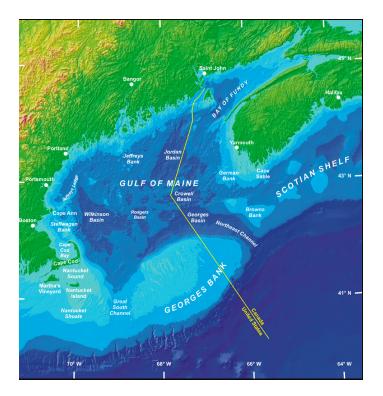
• Outcome 2.3 Environmental monitoring, indicators and reporting.

Outcome 2.4
 Climate Adaptation

Vision, Goals and Outcomes 2018-2022



Gulf of Maine Council - Work Plans



The Gulf of Maine Council's two-year work plans highlight initiatives that support achievement of the goals and outcomes identified in this 2018-2022 Framework for Action. In 2015, the Council began creating separate two-year work plans instead of including them in a fiveyear action plan. Publishing the work plans separately from this five-year Framework for Action allows the Council to update plans on a regular basis and ensure that they reflect current initiatives and priorities.

The Gulf of Maine Council's 2017–2019 Work Plan is in effect as of the publication of this Framework for Action and highlights Council initiatives with planned activities for the period July 2017 through June 2019. Work plans will be revised to reflect changes and incorporate new initiatives as they are approved by the Council. Once approved, the two-year work plan is posted to the Council's website at <u>www.</u> <u>gulfofmaine.org</u>. Links between the Council's planned activities, goals and outcomes are detailed in the work plans. As of the publication of this Framework for Action, the Council's 2017-2019 Work Plan included the following initiatives.

Coastal and Marine Spatial Planning

The Council will track and exchange information on Coastal and Marine Spatial Planning policies, activities and lessons on both sides of the border. The Council will maintain dialogue and seek opportunities to learn from each other by sharing knowledge about best practices, tools and techniques as well as information on human use and ecological data.

EcoSystem Indicator Partnership

This cross-cutting initiative seeks to address the regional need for strong collaboration and sharing to improve understanding and inform researchers, managers, and citizens about the status and trends in ecosystem health of the Gulf of Maine through use of indicators. Priorities during the two-year period include completing and reporting on a water quality and sediment monitoring project in Canada, and promoting tools and resources at relevant meetings and workshops.



Gulf of Maine Council - Work Plans



Climate Network

The Climate Network will continue to foster sharing of professional knowledge and resources and coordinated regional responses in support of greater climate resilience and adaptability in communities throughout the Gulf of Maine. Activities include publishing a Gulf of Maine Quarterly Climate Impacts and Outlook, enhancing and publicizing web-based tools that provide access to Intensity / Duration / Frequency extreme rainfall data to help environmental managers and planners in Atlantic Canada better prepare for climate impacts, and hosting workshops to engage First Nations.

Gulf of Maine GeoTour

The Gulf of Maine Council's GeoTour was established in celebration of the Council's 25th Anniversary. This initiative encourages people to explore and learn about the beauty and value of the Gulf of Maine as they participate in this international geocaching program featuring sites of historic, natural or cultural importance around the Gulf of Maine in US and Canada.

Gulf of Maine Symposium

The Council will work in collaboration with regional partner organizations to host a bi-national Gulf of Maine Symposium in 2019. The goal of this multi-day event is to highlight the 'State of the Gulf' and work toward a shared vision for a sustainable Gulf of Maine.

Gulf of Maine Awards Program

The Gulf of Maine Council will continue hosting an awards program to celebrate and recognize accomplishments of volunteers, environmental professionals, communities, non-government organizations, and industry in promoting a healthy Gulf of Maine ecosystem.

Gulf of Maine Learning Opportunities

The Council will continue to provide a forum for networking, learning and sharing tools, information and resources that support binational actions to ensure a healthy and sustainable Gulf of Maine. These efforts will include policy discussions, workshops, and web-based tools or Webinars. Topics will focus on priority issues such as climate impacts, coastal resilience, coastal and ocean acidification, marine debris, and marine planning.



Over the past five years, the Gulf of Maine Council has worked diligently toward achieving its vision of a healthy and resilient Gulf of Maine where people and aquatic life thrive. In support of our binational efforts to restore and conserve habitats, promote environmental and human health, and ensure sustainable communities, the Gulf of Maine Council implemented the following initiatives from 2012 through 2017.



Climate Network

The Climate Network brings together planners and scientists from around the Gulf of Maine to raise awareness about climate impacts and inspire effective action. Through a collaborative and regional approach, the Climate Network engages participants across borders to address shared concerns such as sea-level rise, extreme weather events and ocean acidification. Key accomplishments from 2012 through 2017:

• Worked with US and Canadian scientists to publish a <u>Gulf of Maine Quarterly Cli-</u> <u>mate Impacts and Outlook</u> to provide an overview of the past season's events and anomalies, regional weather impacts, and outlook for the upcoming season. Coastal managers throughout the five jurisdictions use this information to inform coastal climate adaptation and mitigation efforts.

- Coordinated a Gulf of Maine King Tides Initiative to raise awareness about the future implications of sea level rise on coastal communities and the economy.
- Launched a new Regional Climate Dashboard providing real-time climate data for temperature, precipitation, drought and stream flow, winter weather and ocean conditions. This tool helps inform coastal decision makers and community managers.
- Completed a **Climate Adaptation Study in the Bay of Fundy** to identify climate adaptation measures underway, actions planned, and resourced needed by municipalities bordering the Bay of Fundy.
- Created an online **Community Toolkit** with links to resources, tools and guidance useful for municipalities in their work on climate mitigation and adaptation.
- Convened a two-day **Planning for Change** gathering of more than 60 experts to discuss climate change issues in the states and provinces that border the Gulf of Maine. Discussions focused on lessons learned; planning and strategies for adaptation and mitigation; need for management and policy, and proactive actions needed in forestry, fisheries and transportation.



Coastal and Marine Spatial Planning

Successful Coastal and Marine Spatial Planning (CMSP) requires compilation of regional data and information and the mapping of human uses and areas of ecological significance. The Gulf of Maine Council's CMSP Committee serves as a bi-national forum seeking opportunities to share information and knowledge about best practices, tools and techniques; learn from experiences in other jurisdictions; share information about human use patterns and ecological data; and support collaborative projects aimed at filling knowledge gaps. During the 2012 to 2017 period, the CMSP Committee:

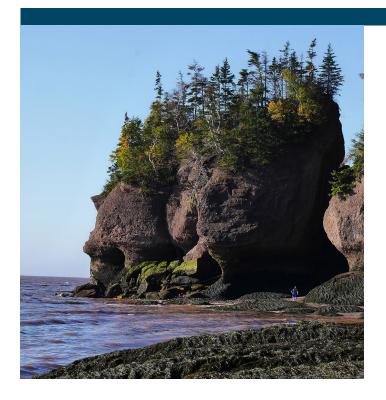
- Met regularly and hosted learning opportunities to share updates regarding ocean planning activities on the US and Canadian side. Participants from both countries learned from each other and discussed opportunities to benefit from collaboration and shared planning tools.
- Enhanced CMSP website and communications materials.
- Expanded membership and engagement in CMSP dialogue on both sides of the border.

- Hosted a workshop in Portsmouth, New Hampshire during 2013.
- Hosted a webinar during 2017 to share knowledge about activities in the Gulf of Maine region and identify opportunities for Canadian / US Collaboration.
- Hosted second webinar in 2017 to share information on the Northeast Region Ocean Plan Portal and related data, mapping and information applications.

CMSP Priority Themes for Future Collaboration and Learning Opportunities

- Transboundary issues, activities and uses
- CMSP tools, methods and approaches
- Effective engagement and partnerships





EcoSystem Indicators Partnership

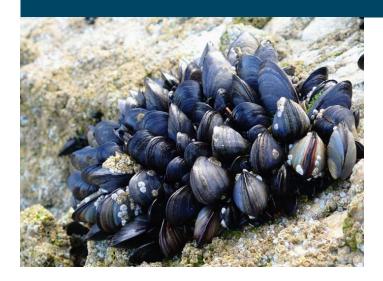
The Gulf of Maine Council's EcoSystem Indicators Partnership (ESIP) develops indicators for the Gulf of Maine and integrates regional data through a web-based reporting system for marine ecosystem monitoring. ESIP provides resources for regional practitioners in six indicator areas: coastal development, contaminants and pathogens, eutrophication, aquatic habitat, fisheries and aquaculture, and climate change. ESIP helped inform researchers, managers, and citizens about the status and trends in ecosystem health in the Gulf of Maine using indicators through the following accomplishments.

- Redesigned web-based Indicator Reporting Tool to simplify and enhance opportunities for reporting on indicators and ecosystem change in the Gulf of Maine.
- Developed a new ICUC Smartphone APP to raise awareness and provide easy

access to monitoring information and highlight changing conditions in the Gulf of Maine.

- Worked in partnership with the US Environmental Protection Agency on Watershed Planning to link upstream activities with downstream conditions in a study area spanning from the Annapolis River in Nova Scotia to Long Island Sound.
- Published more than 35 **ESIP Journal** entries, providing regional managers in the US and Canada with updates and news from research, programs, and initiatives throughout the Gulf of Maine watershed.
- Published **ESIP Fact Sheets** highlighting the latest scientific research and knowledge around key issues related to the indicators including fisheries, eutrophication, coastal development, and contaminants.
- Launched a **Bay of Funding Study** in partnership with Eastern Charlotte Waterways to gather information on eutrophication and sediment contamination in the Bay of Fundy.





Gulfwatch Contaminants Monitoring Program

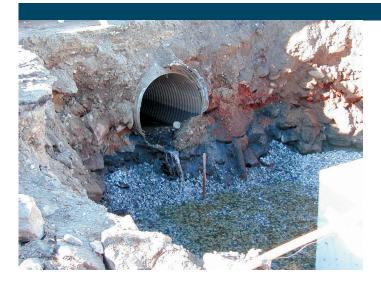
Launched in 1993, the Gulf of Maine Council's Gulfwatch Program measures contaminants such as PCBs, PAHs, metals and chlorinated pesticides in blue mussels to assess the types and concentration of contaminants in coastal waters of the Gulf of Maine. From 2012 to 2017, GOMC conducted limited monitoring activities and continued analyzing data and publishing reports and journal articles from sampling results of contaminants in mussels throughout the Gulf of Maine. Outreach efforts included presenting at the Coastal Zone Canada 2014 conference and publishing a theme paper on toxic chemical contaminants in the Gulf of Maine. Gulfwatch continues to assess trends in chemical contaminants throughout the Gulf of Maine, while adapting to meet the evolving needs of resource managers and surrounding communities, and also being responsive to changes in technology and assessments of the environmental integrity of the Gulf of Maine.

Habitat Restoration Program

The Gulf of Maine Council's Habitat Restoration Program completed its partnership with the US National Oceanic and Atmospheric Administration Restoration Center's Community-based Restoration Program to restore degraded habitats and support a strategic approach to marine, coastal and riverine habitat restoration. Since 2002, the Council has provided grants and technical assistance to over 120 restoration projects in Maine, Massachusetts, New Hampshire, New Brunswick and Nova Scotia resulting in the following habitat restoration and enhancements:

- Re-established tidal flow in 682 tidal marsh acres,
- Provided 94 barrier-free stream miles,
- Renewed fish passage in 141 stream miles, and
- Restored alewife access to 4,638 acres of spawning habitat.





Tidal Culvert Crossings Initiative

The Gulf of Maine Council provided a forum for identifying needs and developing tools to evaluate and improve tidal road crossings for the benefit of ecosystem services in the Gulf of Maine watershed.

- In 2014, GOMC published CoastWise Tidal Road Crossing Concept Assessment, a rapid assessment to evaluate the need for developing a Tidal Road Crossings initiative.
- In 2015, GOMC hosted a Tidal Crossings Workshop in collaboration with the Northeast Regional Ocean Council and the North Atlantic Landscape Conservation Cooperative. Over 40 experts in fisheries, habitat, and infrastructure convened to identify key challenges and communities of practice around improving tidal culvert crossings in the context of sea level rise.
- GOMC's proactive efforts helped inform development of New Hampshire's Tidal Crossings Assessment Protocol in 2017.

State of the Gulf of Maine Initiative

The State of the Gulf of Maine Report provides state-of-the-environment reporting for the region. Since inception, the report has produced a Gulf of Maine context document and series of 13 theme papers on priority issues facing the Gulf of Maine region. From 2012 to 2017, State of the Gulf of Maine published theme papers on Eutrophication, Offshore Ecosystems, Species at Risk, Commercial Fisheries, Toxic Chemical Contaminants, Land Use and Coastal Development, and Watershed Status. The Committee also compiled information on guidelines, best management practices and codes of conduct for coastal and ocean users in the Gulf of Maine, linked to the overarching themes for the State of the Gulf Report.

Gulf of Maine Awards Program

GOMC hosted an annual awards program and ceremony recognizing the accomplishments of volunteers, coastal management professionals, communities, and businesses from each jurisdiction for outstanding efforts to promote a sustainable Gulf of Maine ecosystem.





Forum for Gulf of Maine Networking and Learning Opportunities

The Gulf of Maine Council hosted virtual and in-person bi-national meetings to provide learning opportunities, exchange best practices, and discuss key issues related to promoting a healthy Gulf of Maine ecosystem. These gatherings provided unique opportunities to discuss science and management issues related to some of the most pressing topics affecting the Gulf of Maine watershed, including:

- Ocean and Coastal Acidification and Water Quality in the Gulf of Maine
- Extreme Precipitation in the Gulf of Maine: Challenges and Responses
- How the Gulf of Maine Can Help Us Learn to Live in a Warmer World
- National Assessment of Coastal Change Hazards
- Integrated Sentinel Monitoring Network
- Opportunities to Address Marine Debris in the Gulf of Maine
- Planning for a Gulf of Maine Symposium
- Coastal Resilience Planning and Tools

GOMC 25th Anniversary

The Gulf of Maine Council hosted the following activities to celebrate 25 years of Canada and the US working in collaboration toward a healthy Gulf of Maine watershed.

Facing Change: Sustaining the Vitality of the Gulf of Maine Region

Created brochure highlighting the unique resources of the Gulf of Maine ecosystem and opportunities to collaborate on future protection efforts. Distributed 4,000 printed copies and circulated online versinon to watershed managers, decision makers, and stakeholders throughout the region.

Gulf of Maine GeoTour

Launched a family-friendly geocaching project with 25 sites scattered throughout the five Gulf of Maine states and provinces that encouraged hundreds of people to explore and learn about the Gulf of Maine's unique natural beauty.

Gulf of Maine Special Session

Hosted a special session / panel, Voices of Our Ocean and Coastal Treasure: The Gulf of Maine, at Coastal Zone Canada's 2014 Conference.

GOMC Sustainability

The Gulf of Maine Council conducted a yearlong organizational assessment to provide a more effective organizational structure and leadership framework for continued Canadian / US collaboration toward a healthy Gulf of Maine ecosystem.

Select Publications and Communications Products

- <u>Celebrating 25 Years of Knowledge on the Gulf: A Bibliography of the Gulf of Maine</u> <u>Council on the Marine Environment, 2014</u>
- CoastWise Tidal Road Crossing Assessment, 2014
- <u>EcoSystem Indicators Partnership Fact Sheets</u>
 - Coastal Development in the Gulf of Maine, 2013
 - Contaminants in the Gulf of Maine, 2014
 - Fisheries Issues in the Gulf of Maine, 2016
 - Eutrophication Issues in the Gulf of Maine, 2016
- EcoSystem Indicators Partnership Annual Newsletters, 2014 2016
- Facing Change: Sustaining Vitality of the Gulf of Maine Region, 2014
- <u>Gulf of Maine Region Quarterly Climate Impacts and Outlook, 2015 2017</u>
- Gulf of Maine Council GeoTour: Passport to Exploring the Gulf of Maine, 2015
- <u>Gulf of Maine Council Reference Guide, 2015</u>
- Municipal Climate Change Adaptation around the Bay of Fundy: Status and Needs, 2014
- <u>State of the Gulf of Maine Report</u>

Theme Papers published 2012 - 2017

- Commercial Fisheries
- Eutrophication
- Coastal Land Use and Development
- Offshore Ecosystems and Habitats
- Species at Risk
- Toxic Chemical Contaminants
- Watershed Status

