

Gulf of Maine Council on the Marine Environment

Framework for Action

2023 - 2028



*“We envision a healthy and resilient Gulf of Maine
where people and aquatic life thrive”*

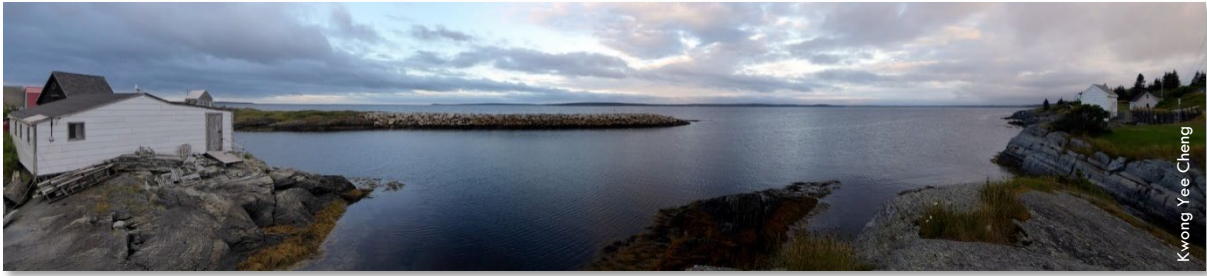
Gulf of Maine Council Vision Statement



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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 more than three decades 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 warming waters, altered ocean chemistry, sea level rise, unpredictable coastal storms, and other challenges associated with climate change. At the same time, population growth and increasing demand for resource use, development of renewable energy sources such as offshore wind, and emerging interest in offshore aquaculture present new management challenges as states and jurisdictions work together to ensure sustainable outcomes for the Gulf of Maine ecosystem.

Every five years, the Council renews its commitment to working in partnership toward a healthy Gulf of Maine ecosystem. With this 2023 – 2028 Framework for Action, the Gulf of Maine Council sets forth our shared vision for sustaining a healthy Gulf of Maine for future generations. This Framework for Action sets out a vision and goals that provide a foundation for actions outlined in two-year Work Plans. The Gulf of Maine Council is also pleased to share key accomplishments toward achieving our mission during the past five years.

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.

About the Gulf of Maine Council

United States | Canada Partnership

As of 2023, the following state, provincial and federal government agencies are active participants in the Gulf of Maine Council.

State / Provincial Jurisdictional Agencies

New Brunswick Department of Environment and Local Government

Nova Scotia Department of Intergovernmental Affairs

Massachusetts Office of Coastal Zone Management

Maine Department of Marine Resources

New Hampshire Department of Environmental Services

Federal Partners

Environment and Climate Change Canada

Fisheries and Oceans Canada

U.S. National Oceanic and Atmospheric Administration

U.S. Department of Interior

U.S. Environmental Protection Agency

Their efforts are enhanced by scientific advisors and non-governmental, First Nations, tribal, and academic representatives.

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 United States (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 region's most pressing environmental issues.

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. The 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 around the region work with the Council to help accomplish goals, and non-profit associations support the Council in Canada and the US.

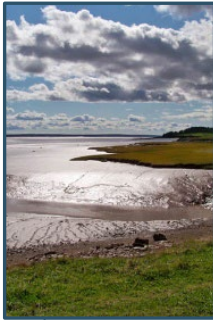
The Gulf of Maine Council on the Marine Environment is a Canadian-American partnership of government and non-government interests. The Council's mission is to maintain and enhance environmental quality in the Gulf of Maine and to allow for sustainable resource use by existing and future generations.



About the Gulf of Maine Council

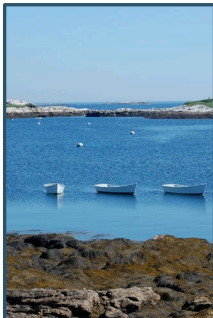
Purposes of the Council

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.



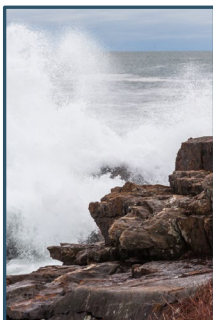
Facilitate integrated watershed, coastal, and ocean management

- 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, preserve ecological integrity, and sustain economically and socially healthy human communities.



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.



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

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.

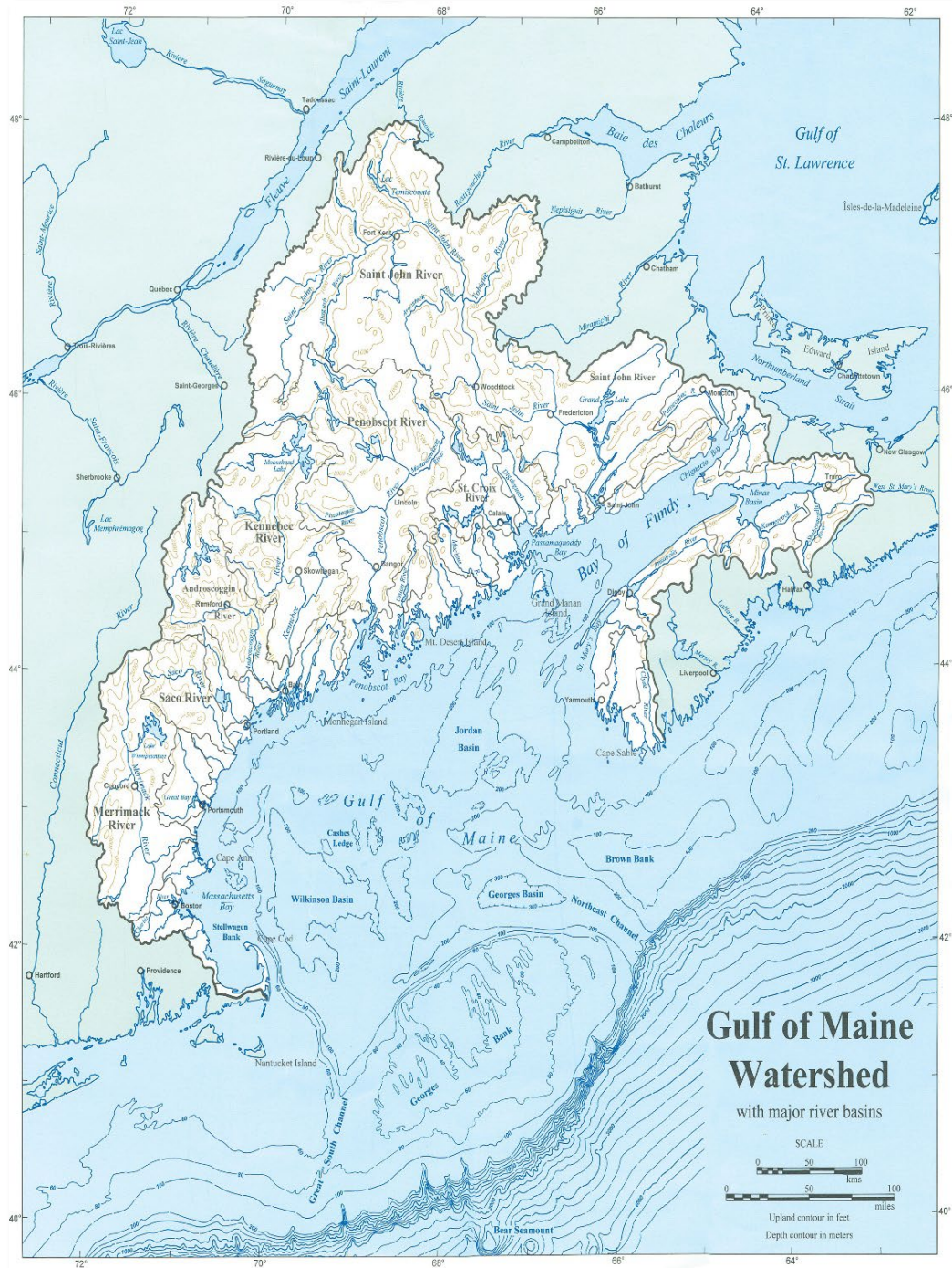
One of the primary strengths of the Council is in bringing partners together toward the shared goal of a sustainable and healthy Gulf of Maine. As a convening organization, the Council plays a valuable role by acting as the catalyst for Gulfwide efforts that may ultimately be led by other member or partner organizations.

Highest Priority Types of Work

- Multi-jurisdictional collaboration, facilitation, and networking
- Regional sharing of resources, best practices, and capacity building across international and jurisdictional boundaries

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.



About the Gulf of Maine



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, eelgrass beds, rocky ledges, and deep basins.

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 approximately \$4.5 billion in US dollars and aquaculture generates approximately \$645 million in US dollars. Tourism, boatbuilding, shipping, and marine trades also support local economies in the Gulf.



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.



2023 – 2028 Framework: Vision, Goals and Outcomes

Vision Statement

The Gulf of Maine Council's vision statement guides efforts to achieve three long-range goals. The Council has also identified outcomes that contribute to each goal. 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. While work plans support these goals and outcomes, they 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.

Gulf of Maine Council Goals

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.

Outcomes

- Habitat restoration
- Habitat conservation
- Water quality protection
- Climate adaptation (cross-cutting)

2. Environment and Human Health

Environmental conditions in the Gulf of Maine support the health of people and the ecosystem.

Outcomes

- Increased awareness about links between environment and human health
- Identification and sharing of knowledge about emerging issues/risks
- Environmental monitoring, indicators, and reporting
- Climate adaptation (cross-cutting)

3. Sustainable and Resilient Communities

People who live and work in the communities around the Gulf of Maine have information, resources, and tools needed to adapt to the changing environment.

Outcomes

- Climate adaptation (cross-cutting)
- Understanding how people use the Gulf of Maine
- Community stewardship

Gulf of Maine Council Work Plan



Gulf of Maine Council's two-year work plan highlights initiatives that support the goals and outcomes identified in the GOMC 2023-2028 Framework for Action. The work plan reflects up-to-date activities, priorities, and initiatives. Publishing the work plan separately from the five-year Framework for Action also allows the Council to update its work plan as needed.

The Gulf of Maine Council's 2023-2025 Work Plan is in effect as of the publication of this Framework for Action. The Work Plan highlights Gulf of Maine Council initiatives with planned activities for the period July 2023 through June 2025. Council work plans may be revised to reflect changes or incorporate new initiatives as they are approved by the Council. The two-year work plan is available on the Council's website at www.gulfofmaine.org. Links between the Council's planned activities and Council goals and outcomes are detailed in the work plans. The Council's 2023-2025 Work Plan includes initiatives such as:

Coastal and Marine Spatial Planning

The Gulf of Maine Council tracks and exchanges 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.

Marine Debris

The Gulf of Maine Council works in collaboration with partners from the US and Canada to address the environmental problem of marine debris in the Gulf of Maine. Through coastal cleanups, education, waste reduction, and debris prevention efforts, the Gulf of Maine Council seeks to protect habitat and marine wildlife from the negative impacts of marine debris ranging from derelict fishing gear to microplastics.

Climate Network

The Climate Network fosters the sharing of professional knowledge and resources and coordinated regional responses in support of greater climate resilience and adaptability throughout the Gulf of Maine. Activities include publishing a Gulf of Maine Quarterly Climate Impacts and Outlook. Each season, US and Canadian scientists share data to provide an overview of the past season's events and anomalies and the weather's impact on the region.

Gulf of Maine Council Work Plan



Gulf of Maine Awards Program

The Gulf of Maine Council hosts an annual awards program to recognize and raise awareness about the accomplishments of volunteers, environmental professionals, communities, non-government organizations, and industry in promoting a healthy Gulf of Maine ecosystem.

Gulf of Maine International Networking Opportunities

The Council provides a forum for networking, learning, and sharing tools, information, and resources that support binational efforts to ensure a healthy and sustainable Gulf of Maine for future generations. These efforts include in-person meetings with expert presenters and policy discussions, workshops, and web-based tools or virtual workshops. Topics focus on priority issues such as climate impacts, coastal resilience, offshore wind planning, coastal and ocean acidification, water quality, marine debris, and marine planning.

Collaboration with Regional Partner Organizations

An important component of efforts to ensure a healthy and sustainable ecosystem for future generations, the Gulf of Maine Council fosters collaboration and partnerships with other regional organizations in the Gulf of Maine including Northeastern Regional Association for Coastal and Ocean Observing Systems (NERACOOS), Northeast Regional Ocean Council (NROC), Regional Association for Research on the Gulf of Maine (RARGOM), and Bay of Fundy Ecosystem Partnership (BoFEP).



Gulf of Maine Council members and friends gather for 2019 Awards Ceremony, Hubbards, Nova Scotia

Gulf of Maine Council Accomplishments: 2018 - 2023

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 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 2018 through 2023.



Maine Governor Janet Mills gives opening address at Gulf of Maine 2050

Gulf of Maine 2050

The Gulf of Maine Council partnered with the Gulf of Maine Research Institute (Maine) and Huntsman Marine Science Centre (New Brunswick) to co-host a five-day Gulf of Maine 2050 International Symposium in Portland, Maine in 2019. Over 320 leaders from across New England and the Maritime Provinces came together to explore environmental, economic, social, and institutional perspectives on climate resilience in the Gulf of Maine.

Key outputs from the Gulf of Maine 2050 symposium included:

- **Understanding Key Drivers of Climate Change**
Participants learned about how key drivers – sea level rise and increasing storms and precipitation, coastal and ocean acidification, and warming waters – are expected to impact the Gulf of Maine over the next 30 years.
- **Working Across Sectors and Disciplines**
Scientists, practitioners, coastal managers, and public officials worked together across sectors and disciplines to identify research, policy, management, and communications priorities for regional resilience.
- **Advancing Scientific Knowledge**
Teams of experts worked together in advance of the symposium to develop scientific scenario papers exploring how the primary drivers of change are expected to impact conditions in the Gulf of Maine over the next 30 years. Following the symposium, experts published a [**Special Feature: Gulf of Maine 2050: Visioning Regional Resilience and Sustainability**](#) in the journal *Elementa* which included eleven insightful articles focused on the Gulf of Maine.
- **Collaborative Action Grants**
At the close of the symposium, four organizations were awarded grants to provide seed funding for participants to begin working on high-priority needs that were identified during Symposium conversations. The grants were developed to spark new collaborations among organizations and individuals that crossed disciplines, sectors, and/or geographies in the Gulf of Maine.

Gulf of Maine Council Accomplishments: 2018 - 2023

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.



Climate Network activities from 2018 through 2023 included:

- **Gulf of Maine Quarterly Climate Impacts and Outlook**
Worked with US and Canadian scientists to publish a Gulf of Maine Quarterly Climate Impacts and Outlook to provide an overview of the past season's events and anomalies, weather impacts on the region, and an outlook for the upcoming season. Coastal management professionals throughout the five jurisdictions use this information to inform coastal climate adaptation and mitigation efforts.
- **International Engagement**
Fostered dialogue and engagement between the Gulf of Maine Council and the New England Governors and Eastern Canadian Premiers on climate adaptation and resilience efforts.
- **Resources and Tools for Coastal Managers**
Shared resources, tools, and case studies to assist coastal managers with climate adaptation and mitigation efforts via the GOMC Climate Network website at: <https://www.gulfofmaine.org/public/climate-network/>.

Quarterly Climate Impacts and Outlook Gulf of Maine Region
September 2023

Gulf of Maine Significant Events - June-August 2023

June
June was quite wet, with the month being **record wet** for Kejimikujik National Park and Kentville, N.S., and among the 10-wettest Junes for a few other Maritimes sites. June also featured **more days than usual with precipitation** of at least 0.2 mm (0.01 in.) at many sites. For instance, Saint John, N.B., reported precipitation on 21 days this June compared to its average of 12.9 days (1981–2010 data). Similarly, Caribou, ME, saw 19 days with measurable precipitation, tying as **second greatest for June**, compared to its average of 14 days (1991–2020 data). One of the **notable rainfall events** occurred roughly the first week of June when a nearly stationary weather pattern brought multiple rounds of precipitation to the region. Most areas saw up to 100 mm (4 in.) of rain, with localized amounts of up to 200 mm (8 in.) in Nova Scotia. The rain **helped ease dryness and reduce wildfire activity**, particularly in the Maritimes. During this time, average daily temperatures were as much as 10°C (18°F) below normal, with highs only reaching 5 to 9°C (41 to 48°F) in the Maritimes. Portland, ME, saw its **coldest June 3 to 4** since records began in 1940, while Caribou, ME, had its **longest streak of June days** with a high less than 16°C (60°F) with seven such days from **June 3 to 9**. Additionally, **wildfire smoke reduced air quality** and led to hazy skies in the region on several occasions during June.

Excessively wet conditions during summer erased drought but also produced deadly and destructive flash flooding.

July became the all-time hottest month on record for parts of Maine and the Maritimes.

Excerpt from the September 2023 Gulf of Maine Quarterly Impacts and Outlook Report available at: <https://www.gulfofmaine.org/public/wp-content/uploads/2023/10/GOM-Summer-2023-Quarterly-final-updated.pdf>

Gulf of Maine Council Accomplishments: 2018 - 2023

Coastal and Marine Spatial Planning

Successful Coastal and Marine Spatial Planning (CMSP) requires the 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.



Coastal and Marine Spatial Planning Committee activities from 2018 to 2023 included:

- **International Collaboration**
Hosted learning opportunities to share updates regarding ocean planning activities in the US and Canada. Participants from both countries learned from each other and discussed opportunities to benefit from collaboration and shared planning tools. Key topics of shared US/Canada interest included offshore wind planning and strategies for conserving 30 percent of marine areas by 2030.
- **Communications, Outreach, and Engagement**
Enhanced CMSP website and communications materials. CMSP expanded membership and engagement in dialogue on both sides of the border.
- **Coastal and Marine Spatial Planning Webinar**
Hosted a webinar in June 2021 that brought academia, federal and state partners, non-profit organizations, Tribes, First Nations, and other regional organizations together to discuss coastal and marine spatial planning tools and approaches, and specific topics such as 30 x 30 marine area conservation, offshore wind planning, blue economy, and seafloor mapping.

Gulf of Maine Council Accomplishments: 2018 - 2023

EcoSystem Indicators Partnership

The Gulf of Maine Council's EcoSystem Indicators Partnership (ESIP) developed indicators for the Gulf of Maine and integrated 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 activities between 2018 through 2023 included:

- Hosted a **web-based Indicator Reporting Tool** to report on indicators and ecosystem change in the Gulf of Maine.
- Collaborated with Environment and Climate Change Canada to conduct a targeted **Bay of Fundy Study** in partnership with Eastern Charlotte Waterways to gather information on eutrophication and sediment contamination in the Bay of Fundy. The study was launched to address a monitoring and data gap identified by ESIP's efforts to compile monitoring and indicator data from Canada and the US. Members of the Council published a report highlighting results from the study (Latimer, J.S. et al. 2020). This collaboration led to a data report and two peer-reviewed articles (one published and one submitted for publication)



Collecting water quality samples in the Bay of Fundy

Gulfwatch Contaminants Monitoring Program



Launched in 1993, the Gulf of Maine Council's Gulfwatch Program measured 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. With monitoring activities complete, GOMC efforts between 2018 and 2023 shifted to analyzing data, making samples available for research, and publishing reports and journal articles from sampling results of contaminants in mussels throughout the Gulf of Maine.

Recent Gulfwatch activities included:

- Presented a **poster at the Gulf of Maine 2050 International Symposium** in 2019 on chemicals measured in mussel tissues in U.S. and Canadian Gulf of Maine waters.
- Published **An Assessment of Legacy Contaminants and Trace Metals in the Gulf of Maine** in 2023.
- Working in partnership with Huntsman Marine Science Center and Fisheries and Oceans Canada to develop a system for archiving and making legacy samples available to the broader Gulf of Maine scientific community to assess chemicals of concern and emerging contaminants in the Gulf of Maine.

Gulf of Maine Council Accomplishments: 2018 - 2023

Regional Collaboration to Address Marine Debris in the Gulf of Maine



With funding from the NOAA Marine Debris Program's North America Marine Debris Prevention and Removal Program, the Gulf of Maine Council (through the non-profit Gulf of Maine Association) has been working with partners - Urban Harbors Institute, Surfrider Foundation, Center for Coastal Studies, Blue Ocean Society, and Huntsman Marine Science Centre - to implement gulf-wide and targeted actions to reduce and prevent the introduction of marine debris into the Gulf of Maine in support of NOAA's Gulf of Maine Marine Debris Action Plan.

Key accomplishments since the Marine Debris initiative was launched in 2021 include:

Cleanups | Debris Removal

- Conducted 549 coastal cleanups across Nova Scotia, New Brunswick, Maine, New Hampshire, and Massachusetts
- Removed 47,875 pounds of debris from coastal sites located throughout the Gulf of Maine
- Collected 21,780 lbs. of discarded fishing-related rope to recycle or repurpose
- Helped identify, raise awareness, and remove previously unidentified yellow plastic shock tubing from coastal areas in the Gulf of Maine

Outreach, Education and Engagement

- Conducted outreach to 7,860 recreational boaters at the New England Boat Show
- Educated 4,601 students and adults through a variety of educational programs
- Engaged 3,616 volunteers in 7,787 hours of service
- Hosted workshops to promote recycling and creative reuse of old fishing rope
- Recruited seven new ocean-friendly restaurants that commit to sustainable practices

International Collaboration

- Hosted several international forums to promote understanding and collaboration on addressing the environmental problem of marine debris in the Gulf of Maine
- Presented and hosted a poster session at the 7th International Marine Debris Conference in Busan, Republic of South Korea

Additional information is available via the [project webpage](#).

Gulf of Maine Council Accomplishments: 2018 - 2023



Gulf of Maine Awards

The Gulf of Maine Council 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.

Advancing Equity and Environmental Justice in the Gulf of Maine

An important component of the Gulf of Maine Council's efforts to ensure a healthy and sustainable ecosystem for future generations includes promoting equity and environmental justice, especially in the context of community resilience in a changing climate. The Council convened numerous opportunities for dialogue and sharing of tools, knowledge, and case studies to help advance equity and environmental justice in the Gulf of Maine. Specific sessions included:

- Best Practices to Empower Coastal Resilience and Support Equity Among Resource-Poor Communities
- Case Study: Coastal Resilience and Environmental Justice in the Mystic River Watershed
- Ecosystem Science, Wabanaki Science, and Research Engagement in Maine




Forum for Gulf of Maine Networking and Learning

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 some of the most pressing science and management issues affecting the Gulf of Maine watershed. Special presentations and discussion sessions from 2018 to 2023 focused on topics such as:


- Marine Environmental Quality Programs in the Bay of Fundy and Scotian Shelf
- North Atlantic Right Whales in the Gulf of Maine
- Insights from the Gulf of Maine Research Institute, Climate Center
- Gulf of Maine Seascapes Project (seafloor mapping)
- Development of state and provincial climate and resilience plans
- Gulf of Maine Council engagement with Tribes and First Nations
- Research and planning associated with offshore wind development
- Coastal and ocean acidification
- Addressing marine debris in the Gulf of Maine
- USGS integrated science and monitoring activities in the Gulf of Maine

Support for UN Sustainable Development Goals


The Gulf of Maine Council on the Marine Environment’s efforts to promote a healthy and sustainable Gulf of Maine ecosystem align with and support the following UN Sustainable Development Goals (SDGs) and associated targets.

UN SDG	Gulf of Maine Council Activities Align with SDG Goals and Targets
 <p>7 AFFORDABLE AND CLEAN ENERGY</p>	<p>Goal 7: Ensure access to affordable, reliable, sustainable, and modern energy for all</p> <p>GOMC Activities:</p> <ul style="list-style-type: none"> ⇒ Offshore wind development is a key component of U.S. and Canadian efforts to provide efficient, affordable, and clean energy to meet climate mitigation goals. GOMC provides a forum for sharing knowledge, research, and case studies to promote the sustainable development of offshore wind in the Gulf of Maine. <p>Supports SDG Targets:</p> <ul style="list-style-type: none"> ⇒ 7.2. By 2030, increase substantially the share of renewable energy in the global energy mix. ⇒ 7.A. By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology.
 <p>11 SUSTAINABLE CITIES AND COMMUNITIES</p>	<p>Goal 11. Make cities and human settlements inclusive, safe, resilient, and sustainable</p> <p>GOMC Activities:</p> <ul style="list-style-type: none"> ⇒ GOMC provides a forum for cross-boundary sharing of case studies, tools, and resources that inform the development of policies and plans to promote sustainable, equitable, and resilient communities. <p>Supports SDG Targets:</p> <ul style="list-style-type: none"> ⇒ 11.B. By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels.
 <p>13 CLIMATE ACTION</p>	<p>Goal 13. Take urgent action to combat climate change and its impacts</p> <p>GOMC Activities:</p> <ul style="list-style-type: none"> ⇒ GOMC provides a forum for U.S./Canada cross-boundary sharing of policies, programs, climate action plans, case studies, tools, and resources to support climate adaptation and mitigation efforts throughout the Gulf of Maine. ⇒ GOMC’s Climate Network publishes a Quarterly Climate Impacts and Outlook for the Gulf of Maine Region as a tool for managers in the U.S. and Canada. <p>Supports SDG Targets:</p> <ul style="list-style-type: none"> ⇒ 13.1. Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries. ⇒ 13.2. Integrate climate change measures into national policies, strategies and planning. ⇒ 13.3. Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.

Support for UN Sustainable Development Goals

	<p>Goal 14. Conserve and sustainably use the oceans, seas, and marine resources for sustainable development</p> <p>GOMC Activities:</p> <ul style="list-style-type: none">⇒ GOMC provides a forum for U.S./Canada cross-boundary sharing of national and jurisdictional policies, programs, case studies, tools, and resources to raise awareness about environmental conditions and help advance efforts to protect and restore water quality and habitat, and promote sustainability throughout the Gulf of Maine.⇒ GOMC's Coastal and Marine Spatial Planning Initiative provides opportunities for US/Canada sharing of programs, planning tools, and resources to support the US and Canada's shared goals of conserving 30 percent of marine areas by 2030.⇒ GOMC works with partners in Canada and the US to implement a regional collaboration to address marine debris in the Gulf of Maine. This initiative focuses on removing and preventing marine debris through cleanups, education, and outreach.⇒ GOMC works in collaboration with the Northeast Coastal and Ocean Acidification Network (NECAN) and the Integrated Sentinel Monitoring Network (ISMN) to increase understanding and address the environmental problem of coastal and ocean acidification.⇒ GOMC serves as fiscal agent for the Regional Association for Research on the Gulf of Maine, an association of institutions involved in research, management, and stewardship activities related to the Gulf of Maine and its watershed. The Council's role supports scientific collaboration, cooperation, and sharing of knowledge and expertise throughout the Gulf of Maine. <p>Supports SDG Targets:</p> <ul style="list-style-type: none">⇒ 14.1. By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.⇒ 14.2. By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans⇒ 14.3. Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels.⇒ 14.5. By 2020, conserve at least 10 percent of coastal and marine areas, consistent with national and international law and based on the best available scientific information.⇒ 14.C. Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in UNCLOS, which provides the legal framework for the conservation and sustainable use of oceans and their resources.
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Support for UN Sustainable Development Goals

<p>17 PARTNERSHIPS FOR THE GOALS</p> 	<p>Goal 17. Revitalize the global partnership for sustainable development</p> <p>GOMC Activities:</p> <ul style="list-style-type: none">⇒ GOMC was established as a U.S./Canada bi-national partnership working across five jurisdictions and two countries to achieve its mission - to maintain and enhance environmental quality in the Gulf of Maine and to allow for sustainable resource use by existing and future generations. All of the GOMC's activities involve partnerships and collaboration between the US and Canada. GOMC regularly collaborates with academia, non-governmental organizations, Tribes and First Nations, communities, and industry to promote international, cross-sector, sharing of knowledge, tools, resources, and expertise to promote a healthy and sustainable Gulf of Maine. <p>Supports SDG Targets:</p> <ul style="list-style-type: none">⇒ 17.16. Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries.⇒ 17.17. Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships.
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For reference, all UN SDGs and associated targets are available at:

<https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

APPENDIX

Select Publications and Communication Products 2018 - 2023

Climate Network

- [Gulf of Maine Region Quarterly Climate Impacts and Outlook, 2018 – 2023](#)

Ecosystem Indicators Partnership

- Elskus, A. A., L. A. LeBlanc, J. S. Latimer, D. S. Page, G. C. H. Harding, and P. G. Wells. 2020. Monitoring chemical contaminants in the Gulf of Maine, using sediments and mussels (*Mytilus edulis*): An evaluation. *Marine Pollution Bulletin* 153:110956. DOI: <https://doi.org/10.1016/j.marpolbul.2020.110956>
- Latimer, James S., David S. Page, Adria A. Elskus, Lawrence A. LeBlanc, Gareth C. H. Harding, and Peter G. Wells. (2020). *Data Report – The Collection and Analysis of Bay of Fundy Sediment Under Contract between the Association of US Delegates to the Gulf of Maine Council on the Marine Environment and Eastern Charlotte Waterways for Contaminant Monitoring and Analysis*. Gulf of Maine Council on the Marine Environment. 91 p. ([PDF, 2MB](#))
- Latimer, James, S., Marguerite Pelletier, Brenda Rashleigh, Christine Tilburg, and Michael A. Charpentier. (submitted). Modeling eutrophication response to anthropogenic and natural drivers and pressures in Northeast US estuaries using data from multiple monitoring programs. *Environmental Monitoring and Assessment*.

Gulf of Maine 2050: Visioning Regional Resilience and Sustainability. Special feature published in the Journal *Elementa* following the Gulf of Maine 2050 International Symposium.

- Bonanno, Aimee, Megan Ennes, Jennifer A. Hoey, Emily Moberg, Sarah-Mae Nelson, Nette Pletcher, and Richelle L. Tanner. Empowering hope-based climate change communication techniques for the Gulf of Maine. *Elementa: Science of the Anthropocene* 21 January 2021; 9 (1): 00051. DOI: <https://doi.org/10.1525/elementa.2020.00051>
- Brickman, Dave, Michael A. Alexander, Andrew Pershing, James D. Scott, Zeliang Wang; Projections of physical conditions in the Gulf of Maine in 2050. *Elementa: Science of the Anthropocene* 21 January 2021; 9 (1): 00055. DOI: <https://doi.org/10.1525/elementa.2020.20.00055>
- Chisholm, Lucy, Tracey Talbot, William Appleby, Benita Tam, and Robin Rong. Projected changes to air temperature, sea-level rise, and storms for the Gulf of Maine region in 2050. *Elementa: Science of the Anthropocene* 21 January 2021; 9 (1): 00059. DOI: <https://doi.org/10.1525/elementa.2021.00059>
- Levesque, Vanessa R., Cameron Wake, and Julia M. Peterson. Facilitating use of climate information for adaptation actions in small coastal communities. *Elementa: Science of the Anthropocene* 21 January 2021; 9 (1): 00048. DOI: <https://doi.org/10.1525/elementa.2020.20.00048>

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- Liberti, Catherine M., Matthew W. Gray, Lawrence M. Mayer, Jeremy M. Testa, Wei Liu, and Damian C. Brady. The impact of oyster aquaculture on the estuarine carbonate system. *Elementa: Science of the Anthropocene* 4 January 2022; 10 (1): 00057.
DOI: <https://doi.org/10.1525/elementa.2020.00057>
- Major, Heather L., Sarah E. Durham, Natalia Fana, Joy E. Rivers, and Antony W. Diamond. Contrasting phenological and demographic responses of Atlantic Puffin (*Fratercula arctica*) and Razorbill (*Alca torda*) to climate change in the Gulf of Maine. *Elementa: Science of the Anthropocene* 21 January 2021; 9 (1): 00033.
DOI: <https://doi.org/10.1525/elementa.2021.00033>
- Pershing, Andrew J., Michael A. Alexander, Damian C. Brady, David Brickman, Enrique N. Curchitser, Antony W. Diamond, Loren McClenachan, Katherine E. Mills, Owen C. Nichols, Daniel E. Pendleton, Nicholas R. Record, James D. Scott, Michelle D. Staudinger, and Yanjun Wang. Climate impacts on the Gulf of Maine ecosystem: A review of observed and expected changes in 2050 from rising temperatures. *Elementa: Science of the Anthropocene* 21 January 2021; 9 (1): 00076.
DOI: <https://doi.org/10.1525/elementa.2020.00076>
- Record, Nicholas R., Peter D. Countway, Kohl Kanwit, and José Antonio Fernández-Robledo. Rise of the rare biosphere: Thinking beyond climate envelopes for forecasting harmful algal blooms. *Elementa: Science of the Anthropocene* 21 January 2021; 9 (1): 00056.
DOI: <https://doi.org/10.1525/elementa.2020.00056>
- Ross, Camille H., Daniel E. Pendleton, Benjamin Tupper, David Brickman, Monica A. Zani, Charles A. Mayo, and Nicholas R. Record. Projecting regions of North Atlantic right whale, *Eubalaena glacialis*, habitat suitability in the Gulf of Maine for the year 2050. *Elementa: Science of the Anthropocene* 21 January 2021; 9 (1): 00058.
DOI: <https://doi.org/10.1525/elementa.2020.20.00058>
- Siedlecki, S. A., J. Salisbury, D. K. Gledhill, C. Bastidas, S. Meseck, K. McGarry, C. W. Hunt, M. Alexander, D. Lavoie, Z. A. Wang, J. Scott, D.C. Brady, I. Mlsna, K. Azetsu-Scott, C.M. Liberti, D. C. Melrose, M. M. White, A. Pershing, D. Vandemark, D. W. Townsend, C. Chen, W. Mook, and R. Morrison. Projecting ocean acidification impacts for the Gulf of Maine to 2050: New tools and expectations. *Elementa: Science of the Anthropocene* 21 January 2021; 9 (1): 00062.
DOI: <https://doi.org/10.1525/elementa.2020.00062>
- Wake, Cameron, David Kaye, C. J. Lewis, Vanessa Levesque, and Julia Peterson. Undercurrents: Exploring the human dynamics of adaptation to sea-level rise. *Elementa: Science of the Anthropocene* 2 November 2020; 8 (1): 060.
DOI: <https://doi.org/10.1525/elementa.2020.060>

Gulfwatch Contaminants Monitoring

- Swam, Lauren M., Apeti, Dennis A., Rider, Mary M., Jones, Stephen; Reed, Lou Ann. (2023). *An Assessment of Legacy Organic Contaminants and Trace Metals in the Gulf of Maine*. National Centers for Coastal Ocean Science (U.S.), Consolidated Safety Services, Inc., and University of New Hampshire. NOAA technical memorandum NOS NCCOS: 319. <https://repository.library.noaa.gov/view/noaa/52110>

APPENDIX

Links to GOMC Partner and Regional Organizations

Bay of Fundy Ecosystem Partnership (BoFEP), <http://www.bofep.org/wpbofep/>

Conservation Law Foundation (CLF), <https://www.clf.org/>

Gulf of Maine 2050 International Symposium, <https://www.gulfofmaine2050.org/>

Gulf of Maine Research Institute (GMRI), <https://www.gmri.org/>

Huntsman Marine Science Centre, <https://www.huntsmanmarine.ca/>

Integrated Sentinel Monitoring Network, <https://www.sentinelmonitoring.org/>

New England Governors and Eastern Canadian Premiers (NEG ECP), <https://www.coneg.org/neg-ecp/>

Northeast Coastal Acidification Network (NECAN), <http://www.necan.org/>

Northeast Regional Ocean Council (NROC), <https://www.northeastoceancouncil.org/>

Northeastern Regional Association of Coastal and Ocean Observing Systems (NERACOOS),
<https://www.neracoos.org/>

Regional Association for Research on the Gulf of Maine (RARGOM), <https://www.rargom.org/>



Volunteers from the Center for Coastal Studies conduct a volunteer cleanup as part of the Gulf of Maine Council's Regional Collaboration to Address Marine Debris in the Gulf of Maine, Cape Cod, Massachusetts

www.gulfofmaine.org

Framework for Action writing, editing and design: Joan LeBlanc