



# **Gulf of Maine Council Work Plan**

**July 2015 - June 2017**

*Updated June 2016*

**Table of Contents**

**Introduction..... 3**

**Work Plans for GOMC Initiatives**

Climate Network..... 4

EcoSystem Indicator Partnership (ESIP) ..... 7

Coastal and Marine Spatial Planning (CMSP) ..... 10

State of the Gulf – Watershed Status Theme Paper..... 11

GOMC GeoTour ..... 12

Gulf of Maine Connector..... 14

Gulfwatch ..... 15

GOMC Awards Program ..... 17

Sustainable Communities..... 18

GOMC Outreach Projects ..... 19

## **Introduction**

This Work Plan highlights Gulf of Maine Council initiatives with planned activities for the period July 2015 through June 2017. Gulf of Maine Council initiatives are intended to support the goals and outcomes outlined in the GOMC 2012-2017 Action Plan, as well as the priority ‘types of work’ identified by Council and Working Group members during the 2014 / 2015 Secretariat Year.

Proposed work plans for existing and new Gulf of Maine Council initiatives were developed by GOMC Council and Working Group members in advance of the June 2015 Council / Working Group meeting in Portsmouth, New Hampshire. Each proposed work plan was presented for consideration and feedback during a workshop at the June 2015 meeting. Several of the individual work plans have been revised by project leads to incorporate feedback received during the workshop.

This GOMC work plan may be revised throughout the two year period to reflect work plan changes and / or to incorporate any new initiatives approved by the Council.

### GOMC 2012-2017 Action Plan Goals and Outcomes

The following goals and outcomes included in the GOMC 2012-2017 Action Plan were reaffirmed at the GOMC June 2015 meeting and provide the foundation for this more detailed two-year work plan.

#### *Goal 1: Restored and Conserved Habitats*

- Outcomes:
- 1.1 Water Quality Protection
  - 1.2 Habitat Restoration Outcome
  - 1.3 Habitat Conservation

#### *Goal 2: Environmental and Human Health*

- Outcomes:
- 2.1 Environmental Monitoring
  - 2.2 Environmental Indicators and Reporting
  - 2.3 Climate Adaptation

#### *Goal 3: Sustainable Communities*

- Outcomes:
- 3.1 Understanding How People Use the Gulf of Maine
  - 3.2 Community Stewardship

A copy of the GOMC 2012-2017 Action Plan is available at: <http://www.gulfofmaine.org/2/action-plan-homepage/>

### GOMC Priority Types of Work

Gulf of Maine Council initiatives included in the Work Plan are intended to support the following two priority types of work identified by the Council as part of an organizational assessment conducted during the 2014 / 2015 Secretariat Year.

1. Networking / Multi-jurisdictional Collaboration and Facilitation
2. Sharing Resources / Best Practices / Capacity Building (regional or jurisdictional)

## Gulf of Maine Council on the Marine Environment

GOMC Work Plan • July 2015 – June 2017

Gulf of Maine Council on the Marine Environment Proposed Two Year Work Plan – July 2015 through June 2017					
<b>Name of GOMC Initiative:</b> Climate Network					
<b>GOMC Project Lead (s):</b> Ellen Mecray and Bill Appleby, Co-Chairs					
Links to 2012-2017 Action Plan Goals and Outcomes					
Goal 1: Restored & Conserved Habitats		Goal 2: Environmental & Human Health		Goal 3: Sustainable Communities	
<b>Outcomes:</b>		<b>Outcomes:</b>		<b>Outcomes:</b>	
1.1 Water Quality Protection	x	2.1 Environmental Monitoring		3.1 Understanding How People Use the Gulf of Maine	
1.2 Habitat Restoration Outcome	x	2.2 Environmental Indicators and Reporting	x	3.2 Community Stewardship	x
1.3 Habitat Conservation	x	2.3 Climate Adaptation	x		
<p><b>Context for Work</b></p> <p>Climate is fast becoming the most powerful ecological and economic driver for the Gulf of Maine region and for the world. This region is particularly vulnerable to climate disruptions in its marine and coastal ecosystems.</p> <ul style="list-style-type: none"> <li>Over the past decade, the Gulf of Maine has warmed faster than 99.9 percent of global oceans (<a href="#">Pershing, 2014</a>).</li> <li>The <a href="#">2014 US National Climate Assessment</a> (NCA3) reports that sea-level rise along most of the coastal Northeast is expected to exceed the global average rise due to local land subsidence, with the possibility of an even greater rise if the Gulf Stream weakens as some models suggest.</li> <li>The NCA3 concluded that the Northeast has experienced a greater increase in extreme precipitation than any other US region (between 1958 and 2010, the Northeast saw more than a 70 percent increase in the amount of precipitation falling in very heavy events).</li> <li>A recent report on <a href="#">Canada's Marine Coasts in a Changing Climate</a> describes many biological ramifications along its East Coast, including ocean acidification, hypoxia and threats to habitats like tidal salt marshes.</li> </ul> <p>Climate change is dramatically and irreversibly transforming environmental management, making regional information-sharing and collaborative planning more critical than ever. The Gulf of Maine Council, a successful bi-national partnership for 25 years, is well-suited to facilitate public outreach concerning climate impacts and to foster collaborative regional adaptation projects across borders and sectors—helping Gulf watershed communities respond constructively to ecological disruptions (and resulting economic and health challenges).</p> <p><b>About the Climate Network</b></p> <p>The <a href="#">Climate Network</a>, a cross-cutting committee of the <a href="#">Gulf of Maine Council on the Marine Environment</a>, supports collaborative work to improve the climate resilience of communities in the Gulf of Maine watershed (which encompasses portions of Maine, Massachusetts, New Hampshire, New Brunswick, and Nova Scotia). The Network benefits from the varied perspectives of those working in meteorology, climatology, marine sciences, transportation, regional planning, and public health. It is well-positioned to address concerns that cross sectors, require effective delivery of current science, and benefit from a coordinated regional response.</p> <p><b>Vision</b></p> <p>Local decision-makers in the Gulf of Maine watershed have access through Climate Network projects and online resources to credible information that helps them evaluate climate change impacts and work collaboratively on adaptation and mitigation measures.</p> <p><b>Mission</b></p> <p>In support of greater climate resilience and adaptability in communities throughout the Gulf of Maine watershed, the Climate Network fosters sharing of professional knowledge and resources and coordinated regional responses</p> <p><b>Climate Network Strategies</b></p> <ol style="list-style-type: none"> <li>Deliver credible climate information and adaptation guidance to all levels of government throughout the Gulf of Maine/Bay of Fundy watershed;</li> </ol>					

## Gulf of Maine Council on the Marine Environment

GOMC Work Plan • July 2015 – June 2017

2. Advance climate resilience and adaptation through collaborative projects that address emerging regional needs and help local decision-makers prioritize action.

The Gulf of Maine Council's Climate Network plays a significant role in four primary ways:

1. Compiling and promoting (across sectors and borders) accurate information about likely climate impacts within the region. Examples include the Gulf of Maine quarterly [Climate Impacts and Outlook](#); a [dashboard](#) of real-time climate data; and a [King Tides regional web page](#) with sea-level rise projections, anticipated impacts, and stories about adaptation planning.
2. Identifying critical data gaps and convening regional experts to determine how to most efficiently gather and disseminate that information. For example, the Climate Network is currently exploring ways to extend the National Integrated Heat Health Information System being developed in the US into Atlantic Canada, potentially linking heat early-warning systems across borders.
3. Engaging more citizens in tracking the impacts of climate change and transmitting those data (such as King Tides photos) to the municipal and regional managers who can best use that information to strengthen community resilience.
4. Fostering regional and international collaboration on climate-related management challenges through mechanisms such as the [North American Climate Services Partnership](#) (NACSP) and the [World Meteorological Organization's Global Framework for Climate Services](#). Early in 2016, the Gulf of Maine region was formally included in the NACSP, joining the Great Lakes Region and the Rio Grande/Rio Bravo Region. The Climate Network is exploring ways that it can contribute to the Global Framework as well, potentially through proposed actions (see below) involving infrastructure/culverts, marine forecasting and public health.

Climate Network projects are typically grant-funded and rely on an expert "working group" that is assembled for each initiative.

### **Proposed Actions**

- Continue expanding distribution of [Gulf of Maine Quarterly Climate Impacts and Outlook](#) and related media outreach; publicize webinars held in conjunction with the *Outlook* release each quarter; and promote the availability of the Climate Network's new [dashboard](#) of real-time data. (*Strategy 1*) (*requires staffing resources*)
- Refine and publicize a web-based tool offering improved access to Intensity/Duration/Frequency (IDF) extreme rainfall data, helping environmental managers and municipal planners in Atlantic Canada better prepare for climate impacts. (*Strategy 2*) (*funded by Environment Canada 2015-2017*)
- Continue coordinating the Gulf of Maine King Tides Initiative and annual photo contest, which generates inundation images from extreme tides to use for planning and educational purposes (*Strategies 1 & 2*) (*requires additional resources*)
- In collaboration with partners such as the Department of Interior's [Landscape Conservation Cooperative Network](#) and the [Infrastructure and Climate Network](#), create online guidance and host a regional workshop to help coastal communities reconsider design and engineering standards for coastal roads and tidal road crossings so as to improve habitat and minimize impacts of sea-level rise and storm surge. The Climate Network would take a lead role in sharing examples of infrastructure designs, best management practices and regulatory frameworks that benefit coastal ecosystems and minimize climate-related impacts. (*Strategies 1 & 2*) (*requires additional resources*)
- Lead regional pilot, potentially linked to the new US National Integrated Heat Health Information System, overlaying climate data and health data to enable better management of vulnerable populations in extreme heat and weather events (*requires additional resources*)
- Respond to funding opportunities for projects involving collaborative, regional responses to extreme weather and its impacts on sectors such as health, transportation and natural resources. (*Strategy 2*) (*requires additional resources*)

## Gulf of Maine Council on the Marine Environment

GOMC Work Plan • July 2015 – June 2017

---

### **Past Accomplishments**

- Hosted a two-day bi-national discussion in September 2013 about regional climate issues for more than 60 participants
- Generated a new regional [climate information dashboard](#) that provides multiple links to recent and real-time data sources
- Helped facilitate preparation and distribution of a [Gulf of Maine Region Quarterly Climate Impacts and Outlook](#), a two-page bulletin that summarizes the past season's events and anomalies, discusses weather impacts on the region's ecosystems and economy, and offers a forecast for the coming three months
- Completed and distributed a [study of the climate adaptation status and needs of municipalities bordering the Bay of Fundy](#)
- Working in conjunction with the [international King Tides Project](#), launched a regional [Gulf of Maine King Tides Initiative](#) helping raise awareness about sea-level rise impacts
- Created a ["Living Shorelines" page](#) on the Climate Network web pages that provides information and resources on best practices for those interested in ecologically sound ways to mitigate impacts of sea-level rise and storm surge

### **Project Funding (Amount and Sources):** Secured to date

Environment Canada: \$105,806

Maine Community Foundation: \$7,000

### **Project Partners**

GOMC members, Northeast Regional Climate Center, IC Net, North American Land Conservation Collaborative, NROC, GOM King Tides Partners, King Tides Network, funders.

## Gulf of Maine Council on the Marine Environment

GOMC Work Plan • July 2015 – June 2017

Gulf of Maine Council on the Marine Environment Two Year Work Plan – July 2015 through June 2017					
<b>Name of GOMC Initiative:</b> EcoSystem Indicator Partnership (ESIP) - DRAFT					
<b>GOMC Project Lead (s):</b> Co-Chaired by: Environment Canada and US Environmental Protection Agency Direction Provided by (Steering Committee): Environment Canada, Fisheries & Oceans Canada, National Oceanic and Atmospheric Administration, University of Maine, US Department of Interior, US Geological Survey and US Environmental Protection Agency					
Links to 2012-2017 Action Plan Goals and Outcomes					
<i>Place 'x' next to all GOMC outcomes supported by proposed GOMC initiative</i>					
Goal 1: Restored & Conserved Habitats		Goal 2: Environmental & Human Health		Goal 3: Sustainable Communities	
<b>Outcomes:</b>		<b>Outcomes:</b>		<b>Outcomes:</b>	
1.1 Water Quality Protection	X	2.1 Environmental Monitoring	X	3.1 Understanding How People Use the Gulf of Maine	X
1.2 Habitat Restoration Outcome		2.2 Environmental Indicators and Reporting	X	3.2 Community Stewardship	X
1.3 Habitat Conservation		2.3 Climate Adaptation			
<b>Description:</b> As a cross-cutting committee, ESIP supports all three goals of the current 2012-2017 GOMC Action Plan, although the primary focus is Goal 2, Outcome 2.2. ESIP works closely with other current GOMC Committees to integrate and share information.  ESIP was established as a cross-cutting committee of the GOMC to address the regionally identified need for stronger collaboration and information sharing to improve understanding and inform researchers, managers, and citizens about the status and trends in ecosystem health in the Gulf of Maine through the use of indicators. In addition, ESIP supports more informed management decisions by addressing issues to maintain and improve ecosystem health. ESIP engages and draws on expertise from scientists, managers, academics, practitioners, interested organizations, and citizens from multiple sectors in both Canada and the U.S. ESIP works collaboratively to compile existing monitoring data and scientific information from a variety of sources, including government, citizen science groups, academics, and other non-profits. ESIP then integrates the information into a one-stop, on-line location or “environmental intelligence centre” which provides a local to regional picture of on-going monitoring activities and status and trends in habitat, water quality, climate change, human use, and overall ecosystem health in the Gulf of Maine. It also identifies gaps in monitoring and data, and works in partnership with other existing organizations to fill these gaps.  ESIP is guided by GOMC Action Plans and by a Vision 2020 Strategic Plan. ESIP activities supporting these plans are determined by the ESIP Steering Committee and are outlined in a two year work plan. ESIP is currently wrapping up its 2013-2015 18 month work plan. The focus of that work plan was completing ESIP 1.0 and developing a direction and focus for ESIP 2.0.					
<b>On-going:</b> <u>ESIP 2.0 Development</u> The initial phase of ESIP, or ESIP 1.0, is nearing completion. Indicator data and information have been compiled, analyzed, and disseminated through ESIP’s on-line web tools, fact sheets, and direct engagement with users for 6 of ESIP’s original 7 indicator themes – aquatic habitats, aquaculture, climate change, coastal development, contaminants, and eutrophication. ESIP is currently finishing work on the last indicator theme: fisheries. ESIP is now turning to the next phase, ESIP 2.0. A Directional Subcommittee was established, with participants from different federal agencies and academics in both Canada and the U.S. This subcommittee recommended that ESIP 2.0 enhance information and interpretation of ecosystem health through the use of more holistic, ecosystem services indicators to bring together ESIP 1.0 indicators and effects on ecosystem health and services. In particular, ESIP 2.0 will focus on new indicators that improve understanding on the status and trends of cultural, regulation, and provisioning services. See below for details on ESIP2.0 Implementation.					

## Gulf of Maine Council on the Marine Environment

GOMC Work Plan • July 2015 – June 2017

---

### Water Quality and Sediment Monitoring

As a result of ESIP's efforts to compile monitoring and indicator data from Canada and the U.S., monitoring and data gaps are often identified. As part of compiling eutrophication and contaminant indicator effort, it was identified that information regarding water quality and sediment chemistry was needed for the Canadian portion of the Gulf of Maine. Through collaboration with EC's Gulf of Maine Initiative and in partnership with Canadian NGOs, a water quality and sediment quality monitoring project was developed and is being implemented to address the gaps.

### Linking Watershed Activities and Downstream Conditions

ESIP and EPA's Office of Research and Development have undertaken a watershed project that aims to link upstream activities and downstream estuarine conditions. The study area encompasses side embayments of Long Island Sound to the Annapolis River, Nova Scotia. The project combines and updates data on the embayments previously analyzed by ESIP's Eutrophication Sub-Committee with datasets from other partners.

### ICUC App Phase 1

To raise awareness and provide easy access to information on monitoring activities in the Gulf of Maine, and to engage citizen scientists in tracking ecosystem changes over time, ESIP is developing a Smartphone App. The ICUC App will allow the user to obtain information from the ESIP Monitoring Map, which currently contains information on 14,000 monitoring locations in the Gulf of Maine. It will also allow the user to upload information and georeferenced, time-stamped, images which will become part of a photo library to help show environmental change over time. Phase 1 involves development and launch of the basic App and installation of 10 pilot photo capture sites (2 in each Province and State). See below for details on ICUC App Phase 2.

### Web Tool Updates

ESIP's web-based Indicator Reporting Tool is a primary mechanism for ESIP to compile and disseminate information on indicators and ecosystem change in the Gulf of Maine. The Indicator Reporting Tool database was originally designed and developed by DM Solutions and the Gulf of Maine Ocean Observing System (GoMOOS) in 2007-2008 and migrated to the Gulf of Maine Council's servers in 2008-2009. The original database and web presence were designed and developed for a different purpose than today and the current model should be improved to more effectively and efficiently support ESIP and its Community of Practice. In 2012, the ESIP Monitoring Map, ESIP's mechanism for compiling and conveying monitoring information in the Gulf of Maine, was successfully redesigned and redeveloped to make it simpler, faster, and more user friendly. The intent is to conduct a similar redesign and redevelopment of the Indicator Reporting Tool to achieve similar results.

### **New:**

#### ESIP2.0 Implementation and Symposium (funding required)

Following the effort of ESIP's Directional Committee, a new structure will be developed to follow ESIP's normal work flow for the determination of appropriate ESIP 2.0 Indicators. ESIP originally began ESIP 1.0 with a symposium that brought many practitioners together as a brainstorming and effective launch of the original subcommittees and indicator products. ESIP's Steering Committee likewise believes that a symposium or virtual gathering of experts would prove an effective and powerful launch for the ESIP 2.0 effort.

#### ICUC App Phase 2 (funding required):

Phase 2 of the ICUC App will involve adding increased functionality to the existing App including adding a stronger linkage with social media, undertaking additional promotion of the App, and working with partners to expand the network of photo capture sites.

#### Web Tool Updates (funding required):

ESIP's Indicator Reporting Tool is one of the primary vehicles for distributing information about the ESIP 1.0 indicators. The webtool was visited by over 5,000 times in 2014. However, users often state that the webtool could be enhanced with useful new features. GOMC's IT consultant has provided a document outlining how these changes might be implemented as funds become available.



Outreach and Evaluation Strategy (no funding required):

ESIP's Steering Committee has expressed interest in learning more about potential outreach and evaluation efforts already underway within GOMC. In particular, ESIP has stated that it would be very helpful to work in partnership with the Environmental Information impact study beginning in September 2015.

**Key Milestones YR1:**

1. Complete all ESIP 1.0.
2. Launch ESIP's smart phone app (ICUC app).
3. Evaluate the impact of ESIP's 1.0 effort, working in partnership with the EIUI team.
4. Add datasets to the Indicator Reporting Tool and update datasets already available.
5. Report on findings from first year of water quality and sediment chemistry gap effort.

**Key Milestones YR2:**

1. Actively engage the ESIP community to bring together new "theme" subcommittees for ESIP 2.0.
2. Improve outreach efforts to increase web usage of ESIP's products and webtools.
3. Report on findings of the ESIP and EPA effort linking watersheds to downstream estuary condition.
4. Update indicator data for first three ESIP 1.0 fact sheets (Aquaculture, Aquatic Habitats, and Climate Change).

## Gulf of Maine Council on the Marine Environment

GOMC Work Plan • July 2015 – June 2017

Gulf of Maine Council on the Marine Environment Two Year Work Plan – July 2015 through June 2017			
<b>Name of GOMC Initiative:</b> Coastal and Marine Spatial Planning			
<b>GOMC Project Lead (s):</b> NOAA (Betsy Nicholson) and DFO Maritimes (Glen Herbert)			
Links to 2012-2017 Action Plan Goals and Outcomes <i>Place 'x' next to all GOMC outcomes supported by proposed GOMC initiative</i>			
Goal 1: Restored & Conserved Habitats	Goal 2: Environmental & Human Health	Goal 3: Sustainable Communities	
<b>Outcomes:</b> 1.1 Water Quality Protection 1.2 Habitat Restoration Outcome 1.3 Habitat Conservation	<b>Outcomes:</b> 2.1 Environmental Monitoring 2.2 Environmental Indicators and Reporting 2.3 Climate Adaptation	<b>Outcomes:</b> 3.1 Understanding How People Use the Gulf of Maine 3.2 Community Stewardship	x
<b>Description:</b> <p>The CMSP Committee was established to share ideas, lessons learned and information from marine planning initiatives across the Gulf of Maine. It also provides advice to the Council on appropriate opportunities for Council participation or support in these initiatives. There are currently many initiatives of various scales occurring on both sides of the border that committee members are actively involved in. While the primary objectives of these initiatives are often local they often require similar information needs, share common approaches and principles and require regional collaboration to address some issues. The CMSP committee provides an excellent mechanism to share information but also to carry out a regional level assessment of opportunities for collaborations that would benefit the entire Gulf of Maine “community”.</p> <p><b>Key Milestones YR1:</b></p> <ol style="list-style-type: none"> <li>Regular email and conference call discussions to               <ol style="list-style-type: none"> <li>share information on the progress of current initiatives;</li> <li>identify and prioritize areas that could benefit from collaboration or shared experience; and</li> <li>develop recommendations for Gulf of Maine Council’s involvement in marine planning activities in Canada and US.</li> </ol> </li> <li>Annual workshop (in-person or virtual) to explore opportunities for future collaboration, exchange information on current initiatives and identify opportunities for Gulf of Maine Council involvement.</li> </ol> <p><b>Key Milestones YR2:</b> Similar to YR1.</p>			
<b>Project Funding (Amount and Sources):</b>			
In-kind staff support provided by NOAA and DFO Maritimes. If funding is required for hosting of workshop this will be organized by sponsoring organizations.			
<b>Project Leads:</b> NOAA and DFO Maritimes.			
<b>Participating Partners:</b> State of Massachusetts, State of Maine, Province of Nova Scotia, Conservation Law Foundation, NOAA, Urban Harbors Institute, DFO, WWF Canada.			
<b>Supporting Documentation:</b> <i>(If applicable, list additional documents included with this Work Plan)</i>			
Current CMSP Committee Terms of Reference (available on GOMC website)			

## Gulf of Maine Council on the Marine Environment

GOMC Work Plan • July 2015 – June 2017

Gulf of Maine Council on the Marine Environment Two Year Work Plan – July 2015 through June 2017					
Name of GOMC Initiative: Watershed Status theme paper: State of the Gulf of Maine Report					
GOMC Project Lead (s): editor: Heather Breeze (Fisheries and Oceans Canada), lead authors: Glenn Benoy (International Joint Commission), Matt Liebman (U.S. Environmental Protection Agency)					
Links to 2012-2017 Action Plan Goals and Outcomes					
Place 'x' next to all GOMC outcomes supported by proposed GOMC initiative					
Goal 1: Restored & Conserved Habitats		Goal 2: Environmental & Human Health		Goal 3: Sustainable Communities	
Outcomes: 1.1 Water Quality Protection 1.2 Habitat Restoration Outcome 1.3 Habitat Conservation		Outcomes: 2.1 Environmental Monitoring 2.2 Environmental Indicators and Reporting 2.3 Climate Adaptation		Outcomes: 3.1 Understanding How People Use the Gulf of Maine 3.2 Community Stewardship	
		x			
Description:					
<p>The project leads will complete the final State of the Gulf of Maine theme paper on Watershed Status. All other papers were completed more than a year ago and can be found on the State of the Gulf of Maine website. The State of the Gulf of Maine Committee has ended and no other initiatives will be taken related to the State of the Gulf of Maine for the two-year GOMC work plan.</p> <p>A draft of the paper has been completed but needs more work before full review. The paper follows the same format as the other State of the Gulf theme papers (Issue in Brief, Driving Forces and Pressures, Status and Trends, Impacts, Actions and Responses). A poster on the paper was presented at the New England Association of Environmental Biologists (NEAEB) meeting in Bartlett, NH in March, and there is interest in this work from groups around the Gulf of Maine (e.g., Casco Bay Estuary Partnership, Environment Canada).</p>					
Key Milestones YR1:					
Draft paper for editorial review: September 1, 2015					
Paper for Working Group and Council Review: October 7, 2015					
Paper sent for layout and design: November 16, 2015					
Final paper posted to website: December 20, 2015					
Key Milestones YR2:					
Project Funding (Amount and Sources):					
In-kind support for writing (authors above plus Eric Luiker, Environment Canada), map preparation (Greg Hellyer, U.S. Environmental Protection Agency) and editing (Heather Breeze, DFO and Anne Donovan, Massachusetts Office of Coastal Zone Management). Support is anticipated (to be confirmed) for the costs of layout and design, approximately \$1500 US. Project is not seeking funds from Council.					
Project Partners:					
U.S. Environmental Protection Agency, International Joint Commission, Environment Canada, Fisheries and Oceans Canada, Massachusetts Office of Coastal Zone Management					
Supporting Documentation: (If applicable, list additional documents included with this Work Plan)					
More information on the State of the Gulf of Maine can be found on the GOMC website: <a href="http://www.gulfofmaine.org/2/sogom-homepage/">http://www.gulfofmaine.org/2/sogom-homepage/</a>					

## Gulf of Maine Council on the Marine Environment

GOMC Work Plan • July 2015 – June 2017

<b>Gulf of Maine Council on the Marine Environment Two Year Work Plan – July 2015 through June 2017</b>					
<b>Name of GOMC Initiative:</b> Gulf of Maine Council GeoTour					
<b>GOMC Project Lead (s):</b>  <b>Co-Chaired by:</b> NS Department of Environment, Environment Canada, and US Department of Interior <b>Direction Provided by:</b> NS Department of Environment, NS Department of Fisheries and Aquaculture, Environment Canada, Fisheries & Oceans Canada, US Department of Interior, US Environmental Protection Agency, MA Office of Coastal Zone Management, NH Department of Environmental Services, Maine Department of Agriculture, Conservation and Forestry, GOMC Coordinator					
<b>Links to 2012-2017 Action Plan Goals and Outcomes</b> <i>Place 'x' next to all GOMC outcomes supported by proposed GOMC initiative</i>					
Goal 1: Restored & Conserved Habitats		Goal 2: Environmental & Human Health		Goal 3: Sustainable Communities	
<b>Outcomes:</b>		<b>Outcomes:</b>		<b>Outcomes:</b>	
1.1 Water Quality Protection		2.1 Environmental Monitoring	X	3.1 Understanding How People Use the Gulf of Maine	X
1.2 Habitat Restoration Outcome	X	2.2 Environmental Indicators and Reporting		3.2 Community Stewardship	X
1.3 Habitat Conservation		2.3 Climate Adaptation			
<b>Description:</b> <p>The Gulf of Maine GeoTour was established as part of activities to celebrate the GOMC's 25<sup>th</sup> anniversary. It was created to encourage people to get out, learn about and experience the beauty and value of the Gulf of Maine for themselves.</p> <p>The GeoTour is like a scavenger hunt, but instead of visiting locations to collect objects, participants will be finding answers to site specific questions and collecting points. The treasure, a limited edition Gulf of Maine Council 25<sup>th</sup> Anniversary Geocoin, is available to participants who collect enough points and send in their GeoTour Passport.</p> <p>The Gulf of Maine Council has partnered with organizations and geocachers in each of the five provinces and states that border the Gulf of Maine to create the GeoTour. Sites were selected to highlight just some of the important natural, historic, cultural or economic features in the region. Where possible, links to GOMC activities, efforts or to GOMC award winners were identified. Five sites are located in each of the five provinces or states that border the Gulf of Maine – Nova Scotia, New Brunswick, Maine, New Hampshire and Massachusetts – making twenty-five sites to celebrate twenty-five years of the Gulf of Maine Council. Two sites were also used to introduce and test the concept of the EcoSystem Indicator Partnership's (ESIP) ICUC App.</p> <p><b>On-going:</b>            The GeoTour was launched on the GOMC website in July 2014. In Fall 2014, a contract was established with the Maritime Geocachers Association to assess the level of participation in the GeoTour and to provide recommendations on increasing participation. Based on these recommendations, the GeoTour updated and officially launched on Geocaching.com, the one-stop online site that lists geocaches world- wide and provides tools and adventures to support the hobby of geocaching.</p> <p>To date, over 75 coins have been distributed for participation in the GeoTour. The majority of participants live within the Gulf of Maine watershed, but participants from as far away as New York, Idaho and Texas and completed the tour while travelling in the Gulf of Maine region. Participant comments are positive and appreciative for the GOMC setting up an adventure and learning opportunity in the Gulf of Maine. The GeoTour was also covered in a Travel Blog at the NY Times.</p>					

## Gulf of Maine Council on the Marine Environment

GOMC Work Plan • July 2015 – June 2017

---

On-going activities are currently limited to answering inquiries from interested geocachers, monitoring status of geocaches included in the tour and following up with cache owners if maintenance is required, receiving and verifying completion of GOMC GeoTour passports, and distribution of the commemorative 25<sup>th</sup> anniversary coins. On-going activities will continue until all of the 25<sup>th</sup> anniversary geocoins are distributed.

Funding for on-going activities is provided by in-kind support from NS Department of Environment, Environment Canada, and US Department of Interior

**New:**

No new activities are planned.

Suggest revising/revising the idea of the GeoTour with a new commemorative geocoin for the GOMC's 30<sup>th</sup> anniversary

**Key Milestones YR1:**

N/A

**Key Milestones YR2:**

N/A

## Gulf of Maine Council on the Marine Environment

GOMC Work Plan • July 2015 – June 2017

<b>Gulf of Maine Council on the Marine Environment</b> <b>Two Year Work Plan – July 2015 through June 2017</b>			
<b>Name of GOMC Initiative:</b> Gulf of Maine Connector			
<b>GOMC Project Lead (s):</b> Becca Newhall, NOAA			
<b>Links to 2012-2017 Action Plan Goals and Outcomes</b> <i>Place 'x' next to all GOMC outcomes supported by proposed GOMC initiative</i>			
Goal 1: Restored & Conserved Habitats	Goal 2: Environmental & Human Health	Goal 3: Sustainable Communities	
<b>Outcomes:</b> 1.1 Water Quality Protection      x 1.2 Habitat Restoration Outcome      x 1.3 Habitat Conservation      x	<b>Outcomes:</b> 2.1 Environmental Monitoring 2.2 Environmental Indicators and Reporting 2.3 Climate Adaptation      x	<b>Outcomes:</b> 3.1 Understanding How People Use the Gulf of Maine 3.2 Community Stewardship      x	
<b>Description:</b>  <p>Each Council and Working Group Member is welcome to participate in this initiative, to identify opportunities within the Gulf of Maine, that fit the goals of the GOMC, that may be open to members of the GOMC. A special email will be set up called “Gulf of Maine Connector” that will go to all Council and Working Group members – that each member can use to advertise the opportunities. When opportunity being shared may have space or other limitations, the Council or Working Group member sharing the information will work as the intermediary with the opportunity host to ensure that the GOMC does not overwhelm.</p> <p>Examples of this already underway include sharing with Canadian members, the following activities that are occurring through NROC workgroups: 1) living shorelines (or shoreline management or green infrastructure) webinar series; and 2) StormCoasts webinar series (focused on municipal and state preparation and response to coastal storms); and the roll out of 3) marsh migration guidebook. As appropriate this effort will utilize other GOMC initiatives to share the information.</p> <p><b>Key Milestones YR1:</b></p> <ul style="list-style-type: none"> <li>• Provide awareness of ongoing webinar series and other forms for sharing information related to GOMC goals.</li> </ul> <p><b>Key Milestones YR2:</b></p> <ul style="list-style-type: none"> <li>• Provide awareness of ongoing webinar series and other forms for sharing information related to GOMC goals.</li> </ul>			
<b>Project Funding (Amount and Sources):</b> None Needed			
<b>Project Partners:</b> NROC Work Groups			
<b>Supporting Documentation:</b> <i>(If applicable, list additional documents included with this Work Plan)</i>			

## Gulf of Maine Council on the Marine Environment

GOMC Work Plan • July 2015 – June 2017

Gulf of Maine Council on the Marine Environment Two Year Work Plan – July 2015 through June 2017					
Name of GOMC Initiative: Gulfwatch (Gulfwatch Contaminants Monitoring) – Goal 2					
GOMC Project Lead (s): Drs. P. G. Wells, C. Krahforst, S. Jones and J. Swartz					
Links to 2012-2017 Action Plan Goals and Outcomes					
Place 'x' next to all GOMC outcomes supported by proposed GOMC initiative					
Goal 1: Restored & Conserved Habitats		Goal 2: Environmental & Human Health		Goal 3: Sustainable Communities	
Outcomes:		Outcomes:		Outcomes:	
1.1 Water Quality Protection		2.1 Environmental Monitoring		3.1 Understanding How People	
1.2 Habitat Restoration Outcome		2.2 Environmental Indicators		Use the Gulf of Maine	
1.3 Habitat Conservation		and Reporting		3.2 Community Stewardship	
		2.3 Climate Adaptation			
PLEASE NOTE: Project Leads have been asked to revise work plan during 2015 / 2016 year to reflect feedback received at the June 2015 GOMC meeting.					
Description:					
1. Evaluate status of and feasibility of continuing the Gulfwatch Program, which has been running since 1991. Include NERACOOS in this discussion.					
2. Review 2012 metals analyses, and deliver data to ESIP.					
3. Prepare RARGOM poster.					
4. Prepare for presentation at SETAC 2015. Salt Lake City.					
Key Milestones YR1:					
1. The program is re-funded by the GOMC partners. (As indicated at the June 2015 GOMC meeting, GOMC will not provide any direct funding to initiatives)					
2. Updated complete GW data set available.					
3. Presentations at RARGOM and SETAC, and other venues as opportunities occur.					
Key Milestones YR2:					
1. Unknown					
Project Funding (Amount and Sources):					
For the new FY, there is none in place as of May 2015.					
Project Partners:					
All of the agencies represented by the current GOMC Working Group					
Supporting Documentation: (If applicable, list additional documents included with this Work Plan)					
A Briefing Note on the following page provides background associated with the request for GOMC to discuss the role of Gulfwatch in Goal 2 of the current GOMC Action Plan, and its critical linkages to other parts of this goal, and to evaluate the status of and feasibility of continuing the Gulfwatch Program.					
The following two reference documents have been posted with the meeting materials and are available at:					
<a href="http://www.gulfofmaine.org/2/gomc-home/council-meetings/">http://www.gulfofmaine.org/2/gomc-home/council-meetings/</a>					
<ul style="list-style-type: none"><li>Paper by Sarah Chamberlain. <u>Developing and implementing a research framework to determine the use and influence of a long-term marine environmental monitoring program: A Case Study on Gulfwatch in Nova Scotia.</u> (128 pages)</li><li>Gulfwatch Bibliography by Chamberlain and Wells</li></ul>					

## Gulf of Maine Council on the Marine Environment

GOMC Work Plan • July 2015 – June 2017

Gulf of Maine Council on the Marine Environment Briefing Note				
<b>Title of Agenda Item:</b> Goal 2 (Action Plan 2012-17) – Gulfwatch - Contaminants Monitoring (GCMSC)				
<b>Submitted by:</b> P.G.Wells, C. Krahforst, S. Jones and J. Swartz (written by Wells)				
<b>Type of Item</b> (place X in appropriate box)	<b>For Decision</b>	x	<b>For Direction</b>	x
	<b>For Information</b> (internal GOMC)		<b>For Information</b> (External)	
<p><b>Background</b> (required):</p> <p>The Gulfwatch monitoring program has been a core element of the GOMC Action Plan since 1991. It is part of the current Action Plan, 2012-17, Goal 2, an action plan still partially in effect. Its many results have been used nationally, especially amongst the GOMC partner jurisdictions, and internationally; it has given the whole GOMC program credibility and continuity; and its results have contributed to important GOMC initiatives such as the Gulf SOE reports/theme papers, ESIP, and innumerable summit conferences and workshops. Several of the jurisdictions, notably the US ones, depend upon its annual data and the overall knowledge of the spatial and temporal trends of chemical contamination in the Gulf. Knowledge of marine tissue contamination has important human health, ecosystem health, and economic implications. Responsible ocean managers want to know what is in their seafood, what may be affecting marine organisms such as cetaceans, birds and various ecosystems, and whether our regulatory and other control efforts have been effective at controlling harmful substances. They should worry about the continual presence of DDT residues and other pesticides in Gulf waters. They should welcome having background data on PAHs, essential for interpreting the fate and effects of future coastal oil spills.</p> <p>Gulfwatch is the longest running monitoring program for toxic substances in the region, something to celebrate. Despite this, Gulfwatch has continually had to defend itself within the GOMC circle against those who would prefer the Council not to be running credible, flagship scientific programs; it has been degraded as a program due to continual shortage of funding for analyses (despite good efforts of several persons) and no funds for coordination; and it depends on volunteers as much as on salaried staff to carry out its mission. After 24 years, the Gulfwatch team is suffering fatigue; unless funding can be found quickly, it is proposing to close the program down. Importantly, its data and papers will continue to show how exposed the GOM is to harmful toxic substances, and with how little seriousness the various jurisdictions are taking the risks of chemical exposure to human and ecosystem health. The credibility of the Council's work will take a severe hit as a result, despite its first 25 years of relative success.</p>				
<p><b>Possible Activities / Next Steps</b> (optional):</p> <ol style="list-style-type: none"> <li>1. Discuss the role of Gulfwatch in Goal 2 of the current Action Plan, and its critical linkages to other parts of this goal – e.g. ESIP, SOE reporting, aquatic resource protection, climate change.</li> <li>2. Evaluate status of and feasibility of continuing the Gulfwatch Program. Include NERACOOS in this discussion.</li> </ol>				
<p><b>Actions, Outcomes or Decisions Requested</b> (optional):</p> <ol style="list-style-type: none"> <li>1. Decide whether or not the Council wishes to continue a Gulfwatch chemical monitoring program.</li> <li>2. If not, approve the closure of the program, the storage or disposal of its data and information assets, as well as the movement or closure of the Gulfwatch Tissues Archives (currently at BIO-DFO).</li> </ol>				



## Gulf of Maine Council on the Marine Environment

GOMC Work Plan • July 2015 – June 2017

<b>Gulf of Maine Council on the Marine Environment Two Year Work Plan – July 2015 through June 2017</b>			
<b>Name of GOMC Initiative:</b> GOMC Awards Program			
<b>GOMC Project Lead (s):</b> Steve Couture, Theresa Torrent, Joan LeBlanc			
<b>Links to 2012-2017 Action Plan Goals and Outcomes</b> <i>Place 'x' next to all GOMC outcomes supported by proposed GOMC initiative</i>			
Goal 1: Restored & Conserved Habitats	Goal 2: Environmental & Human Health	Goal 3: Sustainable Communities	
<b>Outcomes:</b> 1.1 Water Quality Protection 1.2 Habitat Restoration Outcome 1.3 Habitat Conservation	<b>Outcomes:</b> 2.1 Environmental Monitoring 2.2 Environmental Indicators and Reporting 2.3 Climate Adaptation	<b>Outcomes:</b> 3.1 Understanding How People Use the Gulf of Maine 3.2 Community Stewardship	x
<p><b>Description:</b>            The Gulf of Maine Council will host an annual awards program to celebrate and recognize the accomplishments of volunteers, environmental professionals, communities, non-government organizations, and industry in promoting a healthy Gulf of Maine ecosystem.</p> <p><b>Key Milestones YR1:</b>            Host awards program in June 2016 in collaboration with GOMC June meetings.</p> <p><b>Key Milestones YR2:</b>            Host awards program in June 2017 in collaboration with GOMC June meetings.</p>			
<p><b>Project Funding (Amount and Sources):</b>            Funding of \$2,000 for awards and associated in-kind staff time will be provided through the Maine Coastal Program. Additional staffing support from Council Coordinator or other source will be required for coordination and outreach. Project leads will ensure that appropriate support is available before moving forward with a call for nominations.</p>			
<p><b>Project Partners:</b>            GOMC Council and Working Group</p>			
<p><b>Supporting Documentation:</b> <i>(If applicable, list additional documents included with this Work Plan)</i></p>			

## Gulf of Maine Council on the Marine Environment

GOMC Work Plan • July 2015 – June 2017

<b>Gulf of Maine Council on the Marine Environment Two Year Work Plan – July 2015 through June 2017</b>			
<b>Name of GOMC Initiative:</b> Sustainable Communities			
<b>GOMC Project Lead (s):</b> Theresa Torrent			
<b>Links to 2012-2017 Action Plan Goals and Outcomes</b> <i>Place 'x' next to all GOMC outcomes supported by proposed GOMC initiative</i>			
Goal 1: Restored & Conserved Habitats	Goal 2: Environmental & Human Health	Goal 3: Sustainable Communities	
<b>Outcomes:</b> 1.1 Water Quality Protection 1.2 Habitat Restoration Outcome 1.3 Habitat Conservation	<b>Outcomes:</b> 2.1 Environmental Monitoring 2.2 Environmental Indicators and Reporting 2.3 Climate Adaptation	<b>Outcomes:</b> 3.1 Understanding How People Use the Gulf of Maine 3.2 Community Stewardship	x  x
<p><b>PLEASE NOTE:</b> This Work Plan is currently being revised by the project lead to incorporate feedback received during the June 2015 GOMC workshop.</p> <p><b>Description:</b></p> <ol style="list-style-type: none"> <li>1.) Focusing on current information that supports the information goals of activity 3.1.1 in the action plan and finding innovative ways to share the current available information. Identify information gaps and create a plan for enhancing and growing this knowledge of human uses and values of the GOM.</li> <li>2.) Create an information sharing event that integrates the knowledge gained in #1 with the engagement of communities in sustainable practices – activity 3.2.2 - around the GOM which will respond and adapt to a changing environment.</li> </ol> <p><b>Key Milestones YR1:</b> Information and resources are collected and gaps are identified which will provide the foundation of an information exchange event.</p> <p><b>Key Milestones YR2:</b> Communities engagement in an event/forum which shares both information on the population dynamics and values of the GOM along with the sharing of sustainable practices that will maintain healthy and productive communities in the GOM in the face of a changing coastal environment.</p>			
<b>Project Funding (Amount and Sources):</b>			
<b>Project Partners:</b> Collaboration with the Climate Network and both the physical and social science research communities.			
<b>Supporting Documentation:</b> <i>(If applicable, list additional documents included with this Work Plan)</i>			

## GOMC Work Plan • July 2015 – June 2017

---

19