



Gulf of Maine
Council on the
Marine Environment

March 2014

GOMC Priority Project Summaries

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Overview of ESIP – Priority Project Funding and Core Funding Needs

1. Monitoring App (ICUC) - ~\$75,000

People all over the world use apps to monitor aspects of their lives: heartbeats, heartlands, and the closest seafood restaurant. This proposal centers upon the idea of using apps to help increase interest in the Gulf of Maine while at the same time generate images and data for scientists and managers working on the Gulf of Maine. The project has four core goals: 1) Engage users in monitoring in their communities. 2) Collect images and information by users at sentinel sites (and users' choice sites). 3) Increase knowledge of the Gulf of Maine through education and information delivered by social media and outreach. 4) Grow the next generation of citizen scientists.

According to the "<http://howmuchtomakeanapp.com/>" webpage it will cost approximately \$26500 to build the ESIP ICUC app. When looking at other science apps and the popularity of their use with citizen scientists, some research on a US birding app (eBird) might provide a high upper limit for users. For the eBird app, approximately 150,000 people have uploaded information with the app. Out of all information uploaded into the app, 25,000 people (1% of total users) provide 99% of the information. This is in line with Steering Committee discussions that have centered on many people using the app but a smaller percentage expected to actually input data.

2. Modernizing the ESIP Web Tools (primarily the Indicator Reporting Tool since we are currently working on the Monitoring Map and PLONE) - ~\$30,000

Over the past several years ESIP has invested >\$200,000 USD to create two web-based decision support tools related to contaminants, climate change, coastal development, eutrophication, fisheries and aquaculture in the Gulf of Maine. Our target audience and watershed residents need to better understand how their behaviors affect the health of the Gulf of Maine ecosystem. These tools allow users to improve decision-making at the state and local levels. Various surveys and contacts with ESIP users have revealed that the Indicator Reporting Tool is still too complicated for first-time users to navigate. Consequently it is ESIP's desire to improve on the functionality of the Indicator Reporting Tool and provide individuals in the Gulf of Maine region to be given hands-on training opportunities.

ESIP has conducted user evaluation since the original release of the webtools through on-line surveys, workshops and phone interviews. The information provided by participants is of great importance in crafting revisions to the two webtools.

3. Engagement and training on ESIP Tool - ~\$15,000

ESIP's Indicator Reporting Tool features prominently on the ESIP webpage and fact sheets (Aquatic Habitats Fact Sheet, Aquaculture Fact Sheet, Climate Change Fact Sheet, and Eutrophication Fact Sheet). Web history statistics show that ESIP's users are visiting the Indicator Reporting Tool between 300-2500 times per month. Despite the quantity of visits, users report that the webtool itself is convoluted and confusing. ESIP would like to conduct a series of workshops and a training video to bridge this gap between accessibility and understanding.

During previous ESIP workshops pre-workshop and post-workshop evaluations have been conducted. Responses of participants have usually noted there was limited (to no) knowledge about ESIP's webtools previous to the workshop. Participants usually provide enthusiastic comments with specific suggestions for improved functionality. Using this information ESIP has continued to revise and promote the webtools. They are an important piece of ESIP's communication strategy.

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4. Program Manager - \$69,380

ESIP is made up of a Steering Committee, which provides oversight and direction on ESIP's activities, and a number of indicator themed subcommittees, which provide technical and practical expertise and guidance on specific activities. The ESIP Steering Committee and its subcommittees, comprised of government, academic, industry, community and NGO members, are entirely volunteers. ESIP's only paid position is a Program Manager. ESIP's Program Manager is the backbone of the program, ensuring the day-to-day operations of ESIP including the coordination of ESIP's committees, collaboration with external partners, the on-going development, implementation and maintenance of ESIP's projects and products (such as those listed above), the promotion of ESIP products, and reporting on ESIP's achievements against the goals and objectives of ESIP's Work Plan and the GOMC 2012-2017 Action Plan. Without a Program Manager, ESIP projects and products would grind to a halt.

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GOMC Committee: Gulfwatch Contaminants Monitoring Sub-Committee – Core Committee Services

GOMC Committee Chair (s): Peter G. Wells (Canadian Co-Chair); Christian Krahforst (US Co-Chair)

Recent Accomplishments (refer to Action Plan goals, activities and outcomes) (highlight recent accomplishments in achieving Action Plan goals)

Please see talks given at June and December meetings as well as briefing note of June 2013 for full details – primary outputs have been 2 program business plan reports of last FY, by S. Jones and BRI; one data report 2010; annual sampling in 2012 and 2013; coordination meeting of Sept 2013; contributions to the GOMC State of the Gulf theme papers; abstract submission for the CZC Conf., June 2014.

Description of Core Committee Functions:

Goals (refer to Action Plan Goals where appropriate) Environmental and Human Health

Activities (refer to Action Plan Activities where appropriate) Annual sampling for contaminant analyses of mussel tissue; report preparation; evaluation of the program design and subsequent modification; preparation of talks and papers, especially for the CZC Conf., June 2014. In addition, monitoring data sharing with ESIP, and data use by state and provincial agencies.

Outcomes (refer to Action Plan Outcomes where appropriate) Linked directly to all components of Outcomes 2.1 and 2.2 of the Action Plan.

Measures of Success (how will committee’s success be measured / evaluated):

Production of data reports; production of Gulfwatch papers and talks; use of the data by ESIP; use of the data by state and provincial agencies, and by the private sector e.g. fisheries industries; use of the data in the GOMC State of the Gulf reports, coordinated by DFO.

Budget for 1 Year of Core Committee Functions: \$

PROGRAM CATCH-UP

Travel support (for full Gulfwatch committee meeting Winter 2014).....	5K
Metal analyses (completion of 2012 samples).....	15K
Two data reports (2011-2012).....	15K
New Gulfwatch fact sheet (applications of the program).....	5K
FY 13-14 program catchup (analyses and reports).....	63K
SUBTOTAL.....	103K
PROGRAM CONTINUING (with redesign and new analytes)	
FY 14-15 program (analyses and reports).....	110K
Coordinator for the program FY 14-15.....	10K
SUBTOTAL.....	120K
OVERALL TOTAL.....	223K

Potential Project Partners:

Environment Canada; NS Dept. of Fisheries and Aquaculture; NS Dept. of Environment; NB Dept. of Fisheries and Aquaculture (Name changed?); Various state agencies in Maine, NH and MA, as represented on the GCMSC; Environmental Protection Agency, US; NOAA; USGS; ESIP (of the GOMC); DFO (of the GOMC, re the State of the Gulf reports).

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GOMC Committee: Habitat Restoration – Core Committee Functions

GOMC Committee Chair (s): John Catena

Recent Accomplishments (refer to Action Plan goals, activities and outcomes):

(highlight recent accomplishments in achieving Action Plan goals)

Action Plan Activity 1.2.1

The Habitat Restoration Program is currently managing administrative and technical requirements of 22 projects that we've funded and sources of ongoing funding for GOMC's Restoration Program are being sought. Activities supporting this activity can be divided into three categories:

1. GOMC-NOAA Projects: Since 2002, the Partnership between NOAA, GOMC and contributors around the Gulf has directed funding and technical assistance to 114 restoration projects, of which 17 are currently active. As of November 22, 2013, habitat restoration figures* for completed projects include:
 - Stream miles with renewed fish passage: 122
 - Barrier-free stream miles: 80
 - Alewife spawning habitat acres with re-established access: 3,263
 - Tidal wetland acres enhanced or restored: 682

** Note amounts of habitat gains will increase with the completion of our remaining construction projects in March 2014. Also, estimates of stream miles are conservative because they regard road crossings that haven't been surveyed as "potential barriers".*

Using the balance of the GOMC-NOAA Partnership funding, one new project was funded in 2013 and another is slated for contracting in December 2013. All active Partnership projects will conclude by March 30, 2014 and the Partnership's funding for the Habitat Restoration Coordinator will end in June 2014. As a result of programmatic changes at NOAA, we don't anticipate another funding Partnership between GOMC and NOAA.

2. Efforts to fund new site-specific projects: With the imminent conclusion of funding from NOAA and also contributions of match for that NOAA funding, the Habitat Restoration Committee is exploring ways to continue providing the goods and services it has for the past 11 years, if at a lower tempo of activity. Starting in late 2012 the HRC investigated several alternatives for funding site-specific projects. These included:
 - a new NOAA grant program that would have provided site-specific project support for three years but for which GOMC's 2013 application was not selected
 - a DFO restoration grant program that we did not apply to, owing to a lack of identifying Canadian projects that would comprise a competitive application from GOMC
 - RBC's Blue Water Project, which awarded GOMC's Restoration Program with a Leadership Grant in 2013. RBC is providing funding and technical assistance to five new projects in Nova Scotia (1), New Brunswick (1), Maine (1) and New Hampshire (2). These projects mainly support activities that protect or restore quality of freshwaters in urbanized environments. We're now looking into submitting another RBC application for 2014-2015 projects.

It bears noting that when seeking funding from sources that specialize in site-specific project support, GOMC is often at a disadvantage. This is because acting in our traditional role puts us in an intermediate position between the community-level group implementing the project and the funding program from

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which we seek support. In the past this intermediate role was appropriate, because under the GOMC-NOAA Partnership we were expected to use NOAA's funding to issue RFP's, select projects, disburse funds and manage grants. However, when we seek funding from sources that usually deal directly with the implementing organization, our contracting, administrative oversight, and technical tasking costs can appear to be a redundant layer of cost to proposal budgets, even if functionally those costs support admin or technical capacity that the implementing organization lacks. So despite what qualities we bring to projects (regional perspective, technical expertise, capacity-building, and great-track record of projects completed), we may be viewed as an unnecessary "middleman" in the eyes of conventional funding programs. This can make us less competitive than other applicant organizations. At this time, this approach of supporting GOMC restoration activities is not judged to be sustainable due to the uncertainty of funding, unless the Council see appreciable benefit to a program operating in fits and starts and requiring a relatively high degree of turnover in coordination personnel.

3. Strategic funding initiatives: We have some options as to which direction to take, but prompt action is required if we're to sustain a consistent presence and leadership role in the restoration community. A few of these options are:
 - Seek support for a funding partnership that would largely emulate the existing GOMC-NOAA Partnership, but on a longer-term basis as opposed to NOAA's three to four-year competitive grant life cycle. To achieve this, we would need to identify an organization that would provide a large proportion of the funds required to deliver a grant program with all the necessary admin capacity, including a Habitat Restoration Coordinator and GOMA support. Contributing organizations would provide the balance of funding for the program if needed. Given the positive impacts of this model since 2002, it's a worthwhile approach. But since we haven't yet identified a partner who might fund GOMC to implement a comprehensive grant program, it may be less likely in the short-term than some other options.
 - Seek funding from traditional grant programs focusing on site-specific projects (rather than programmatic support), but (and this is critical) adapt our role so that we are the implementing organization, not the middleman. For the reasons discussed in #2 above, this approach would make us more competitive to a wider range of grant programs than if we serve in an intermediate role. However, it requires consistent core funding for a Restoration Coordinator to support 1) project development tasking that is so necessary to advancing projects to the point where they need funding and 2) other tasking not directly associated with site-specific projects, but support GOMC's broader Action Plan Activities for restoration.
 - A third, hybrid approach we're investigating would be a partnership where GOMC would be funded to provide project development, admin support, technical expertise, and efficiency enhancements to an existing grant program, such as Corporate Wetlands Restoration Partnership. This approach has the advantage of not requiring GOMC to constantly seek outside funding for site-specific restoration projects, but it would nevertheless likely require consistent core funding from an outside source to partially fund a Restoration Coordinator.

Action Plan Activity 1.2.2

In 2013, major accomplishments for this Action Plan activity included:

- The Habitat Restoration Coordinator made presentations on restoration needs and tools at the Maine Water Conference, Maine Society of Wetland Scientists, and agencies in Maine with water resource responsibilities
- Development and launch of the *Maine Stream Habitat Viewer*, led by the Habitat Restoration Coordinator. The Viewer is the only web-based mapping and educational tool of its type in the Gulf

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of Maine that provides the locations of habitats warranting interest by restoration practitioners and threats to those habitats. The Stream Habitat Viewer can be accessed at:

<http://mapserver.maine.gov/streamviewer/streamdocHome.html>

- Release of GOMC restoration funding announcements and solicitations
- Maintenance and upkeep of the Online Grant Tracking System, which provides members of the GOMC-NOAA Habitat Restoration Partnership with access to the status of restoration projects and relevant materials (contract, reports, designs, etc.) in several keystrokes.

The items listed below were developed prior to 2013 by the Habitat Restoration Committee (HRC) or with significant contributions from the HRC. They provide outreach and technical methods for restoration practitioners and the public alike. Except where noted, these materials can be accessed at:

<http://www.gulfofmaine.org/2/resources/reports/>

- U.S. Gulf of Maine habitat restoration and conservation plan
- Gulf of Maine habitat restoration strategy
- Stream barrier removal monitoring guide
- GOMC Habitat restoration web portal <http://restoration.gulfofmaine.org>
- Salt marshes in the Gulf of Maine: human impacts, habitat restoration, and long-term change analysis
- American eels: restoring a vanishing resource in the Gulf of Maine

Action Plan Activity 1.2.3

In 2013, major accomplishments for this Action Plan activity included:

- Presentations at the following fora about restoration needs/tools and the role of the GOMC Habitat Restoration Program:
 - Environmental Business Council of New England
 - Aquatic Restoration and Management Strategy stakeholders group in Maine (2 presentations)
 - Maine Water Conference
 - public meetings throughout the Gulf focused on site-specific restoration projects
- Major contributions to the development and delivery of Maine's Stream-Smart Road Crossing trainings, which target road owners and since 2011 have led the way in the Gulf for public outreach about the problem of road crossings that block fish and wildlife passage and interfere with stream processes
- Article in the Gulf of Maine Times on road crossings and habitat restoration
- A revised brief for the GOMC Restoration Program

The materials listed in 1.2.2 above also provide outreach to public audiences but to avoid redundancy they are not repeated in this section.

Description of Core Committee Functions:

Goals: 1. Restored and Conserved Habitats - 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.

Activities:

1.2.1 Provide Gulf of Maine habitat restoration grants and technical assistance that result in restored coastal ecosystems.

1.2.2: Facilitate the exchange of information among the region's habitat restoration practitioners.

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1.2.3: Promote greater public understanding of the environmental, human health, and economic effects of restoring coastal and marine ecosystems.

Outcomes: 1.2: Restoration - Habitat restoration practitioners and community-based organizations receive information, funding, and technical assistance for restoring degraded coastal ecosystems and habitats.

Measures of Success (how will committee's success be measured / evaluated):

- By the number of restoration projects funded and supported with technical assistance.
- By practitioners engaged
- By development, updates and maintenance of public outreach and web materials.

Budget for 1 Year of Core Committee Functions: \$20k - \$80k/yr. solely for a contracted Restoration Coordinator, which is scalable based on the amount and diversity of tasking objectives. An additional \$300k/yr. for funds to support a re-granting program for site-specific projects.

Potential Project Partners: CWRP, NOAA, USFWS, Mass Division of Ecological Restoration, NH Department of Environmental Services, Maine Coastal Program, NB Department of Environment

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GOMC Committee: Habitat Restoration – Priority Projects in Need of Funding

Project Name: Habitat Restoration Program

GOMC Project Lead (s): Slade Moore

Project Description: This program has provided restoration funding, technical assistance, outreach and professional leadership to practitioners and the public since 2002. The Program was funded through contributions from NOAA and private/public contributions. Funding will conclude in June 2014.

Project Need: This is the sole Program with a Gulf of Maine-specific focus on providing restoration funding, technical assistance, education and leadership to practitioners and the lay public throughout the region.

Project Goals: 1. Restored and Conserved Habitats - 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.

Project Activities:

1.2.1 Provide Gulf of Maine habitat restoration grants and technical assistance that result in restored coastal ecosystems.

1.2.2: Facilitate the exchange of information among the region's habitat restoration practitioners.

1.2.3: Promote greater public understanding of the environmental, human health, and economic effects of restoring coastal and marine ecosystems.

Project Outcomes: 1.2: Restoration - Habitat restoration practitioners and community-based organizations receive information, funding, and technical assistance for restoring degraded coastal ecosystems and habitats.

Measures of Success (how will project success be measured / evaluated):

- By the number of restoration projects completed with funding and/or technical assistance provided by the Program.
- By the number of practitioners engaged through projects.
- By the degree to which GOMC restoration information on the web is maintained and updated.

Project Timeframe (# of years): The magnitude of restoration need and backlog of projects is well documented (see GOMC's Gulf of Maine Habitat Restoration and Conservation Plan") and far beyond current capacity to meet the level of urgency. We wish to provide uninterrupted service to Gulf of Maine jurisdictions for at least the next 10 years.

Project Budget or Funding Range: \$300k - \$1 million for a granting and technical assistance program; \$20k-80k/yr. solely for a Coordinator (scalable)

Assuming the Council wishes the Habitat Restoration Committee to continue providing a Restoration Program that focuses on each of three key areas (outreach, leadership, and restored habitats), we'll likely need some amount of core funding for a Restoration Coordinator. The amount required is scalable to the approach/es adopted for continuing the Restoration Program and associated tasking. Currently, \$80,000/year is allocated for the contracted Coordinator, where half of the tasking is directed to GOMC objectives (the other half is devoted to habitat restoration in Maine) and requires:

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- Coordinating a region-wide grant program that requires management of up to 22 projects simultaneously and coordination of jurisdictional efforts
- Development, technical and project management support for up to 18 site-specific projects simultaneously
- Development and updates of program procedures and project management tools
- Developing outreach, case statements, and web materials
- Fundraising and outreach support

Potential Project Partners: CWRP, USFWS, NOAA, Mass Division of Ecological Restoration, NH Department of Environmental Services, Maine Coastal Program, NB Department of Environment

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GOMC Committee: Climate Network – Core Committee Functions

GOMC Committee Chair (s): Bill Appleby, EC; Ellen Mecray, NOAA

Recent Accomplishments (refer to Action Plan goals, activities and outcomes):

- 1) Bi-national, cross-sector meeting with 60 professionals from around Gulf region to discuss shared needs and outline possible actions for the GOMC Climate Network (supports Activities 1.3.1 and 2.33)
- 2) Inclusion of NB and NS climate-related data into the neclimateus.org database (NExUS), enabling decision-makers to locate climate-related reports, plans, tools and organizations (supports Action Plan Activities 1.3.1; 2.3.1; 2.3.3 and 3.1.1)
- 3) Creation of content-rich Climate Network web pages on the Gulf of Maine Council website, providing adaptation guidance and climate-related information for decision-makers around the region (supports Action Plan Activities 1.3.1; 1.3.3; 2.3.1; 2.3.3; 3.2.2)
- 4) Research on the status of climate adaptation work in municipalities bordering the Bay of Fundy and preparation of a summary report to help municipal officials learn from peers about effective, low-cost adaptation measures (supports Action Plan Activities 1.3.3; 2.3.1; 2.3.3; 3.2.2)

Description of Core Committee Functions:

Goals (refer to Action Plan Goals where appropriate)

- 1) Deliver credible climate information and adaptation guidance to all levels of government throughout the Gulf of Maine/Bay of Fundy watershed (Action Plan Goals 2,3)
- 2) Engage jurisdictions in shared, cross-border efforts to understand and address climate concerns, in part by facilitating grant-funded projects (Action Plan Goals 2,3)
- 3) Advance regional coordination through collaborative planning and projects that increase the efficiency and effectiveness of climate adaptation (Action Plan Goals 1, 2,3)

Activities (refer to Action Plan Activities where appropriate)

1. Further expand the GOMC's Climate Network web pages to provide an informational clearinghouse where decision-makers at all governmental levels can find climate-related guidance; research data (through links to the NExUS database); training opportunities (such as webinars and videos); climate-related best management practices; climate impacts and outlooks; and news and case studies (supports GOMC Action Plan Activities 1.2.3; 1.3.1; 1.3.3; 2.3.1; 2.3.3; 3.1.1; and 3.2.2)
2. Coordinate production and distribution of a Quarterly Climate Impacts and Outlooks Bulletin, sharing regional climate trends and data (along with activities, events and updates) with e-mail subscribers—helping elevate awareness and advance adaptation planning. This electronic publication will complement and link to the Network's web pages and expand its capacity to reach regional decision-makers (supports GOMC Action Plan Activities 1.3.1; 1.3.3; 2.3.1; 2.3.3; 3.1.1; and 3.2.2)
3. Convene regular meetings of the Climate Network Steering Committee to foster collaborative project planning and regional exchange of climate-related information (supports Action Plan Activities 1.3.1; 2.3.3 and 3.2.2)
4. Keep Gulf of Maine Council members, Working Group and committees and Regional Partners informed about relevant climate research and resources, particularly involving ecosystem-based approaches (supports Action Plan Activities 1.3.1; 1.3.3; 2.31; 2.3.3;3.1.1; 3.2.2)
5. Prepare grant proposals for Climate Network priority projects and manage grant-funded projects that increase knowledge-sharing, strengthen collaborative approaches to climate challenges, promote greater awareness of climate impacts among decision-makers and citizens, and foster ecosystem-based climate adaptation (supports Action Plan Activities 1.3.3; 2.3.1; 2.3.2;2.3.3; 3.1.1; 3.2.2)

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Outcomes (refer to Action Plan Outcomes where appropriate)

1. Decision-makers across sectors, levels of government and jurisdictional borders around the Gulf of Maine region have ready access to reliable data and resources on which to base mitigation and adaptation choices (supports Outcomes 2.3; 3.1; 3.2)
2. Communities around the Gulf learn from climate-related initiatives and best practices adopted by others in the region, making the process of mitigation and adaptation more cost-efficient, timely and sustainable (supports Outcomes 2.3; 3.2)
3. Communities around the Gulf better understand the economic and ecological costs/benefits/tradeoffs involved in climate mitigation and adaptation measures, and incorporate coastal and marine habitats and water quality into their climate-related planning and actions (supports Outcomes 1.1; 1.2; 1.3; 2.3; 3.2)

Measures of Success (how will committee's success be measured/evaluated):

- Traffic to Climate Network web pages and page views of its quarterly e-bulletin will be tracked (and visitor surveys will be administered to determine whether information is reaching the intended audiences)
- Planned resource roundtables and focus groups will provide valuable feedback about the utility of the Network's current and planned outreach products
- Reports on core activities and grant-funded projects will be reviewed by the Council's Working Group

Budget for 1 Year of Core Committee Functions: \$25,000-\$75,000 (depending on the number of grant projects managed)

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GOMC Committee: Climate Network – Priority Projects in Need of Funding

GOMC Project Lead (s): Bill Appleby, Co-Chair, Environment Canada
Ellen Mecray, Co-Chair, NOAA
Marina Schauffler, Climate Network Coordinator

Project Names/Descriptions/Timeframes/Proposed Partners and Proposed Budgets:

1. Encourage citizen monitoring of extreme weather impacts by launching a Gulf-wide pilot project through which citizens take and post photos documenting the community impacts of major storm events and ‘king tides.’ This initiative would build on the success of current “citizen science” projects like Signs of the Seasons Phenology Program (<http://umaine.edu/signs-of-the-seasons/>), the Community Collaborative Rain, Hail and Snow Network (CoCoRaHS, which operates in both the US and Canada) and the Storm Reporter Network (www.stormreporter.stormsmart.org) now active in Massachusetts, New Hampshire and Maine. Working closely with representatives of pilot communities around the Gulf, the GOMC Climate Network would create monitoring templates and guidance that citizen volunteers could use to record storm impacts (such as flooding, storm surge and erosion) on community infrastructure and sensitive ecosystems. Volunteers would geo-reference and post their images to town sites (to aid municipal officials in climate preparedness planning) and to the GOMC Climate Network pages (to illustrate regional climate change). Partners would include Maine Sea Grant/New England Phenology Program, St. Croix Estuary Project, Clean Nova Scotia, Federation of Canadian Municipalities, CoCoRaHS and StormSmart Coasts. This pilot project would result in a manual that GOM communities could use to institute their own programs engaging citizens in photo documentation of local storm impacts.

Timeframe: 2 years (could expand with further funding beyond the initial pilot)

Proposed Partners: Proposed Budget: \$85,000

2. Enhance coordination and information sharing among regional climate researchers, and between scientists and decision-makers. This initiative would involve several elements:
 - Host a one-time meeting of US federal/regional climate staff active in the Northeast during 2014 to establish better means of information-sharing and coordination among climate-related initiatives; and to determine next steps for improved coordination of high-resolution mapping and data-sharing. (This need was identified at the 2013 Climate Network meeting and has been reiterated by its Steering Committee). Federal partners would include NOAA, USEPA, USFWS, USDA and USFS and regional partners would include state agency representatives engaged in climate initiatives, Sea Grant representatives, Estuary Program and Estuary Reserve representatives, and regional NGOs such as NERACOOS and Manomet. Following that meeting, the US climate community would be better prepared to coordinate with New Brunswick and Nova Scotia on cross-border data-sharing.
 - Form a working group of climate researchers to review research needs identified in the NExUS database (www.neclimateus.org); compile and share research needs from each jurisdiction, and identify priority areas for collaborative, cross-border climate research. NExUS, which now has data incorporated from New Brunswick and Nova Scotia, includes a summary of research needs identified to date in regional reports and plans (*e.g.*, assess the effectiveness of salt marsh restoration as an adaptive strategy to buffer against storm surge). The project would include IT work to expand the scope and utility of the NExUS database and to create a regional climate research page on the GOMC Climate Network site with updates on current and planned research. This effort would begin in 2014 and continue through 2016.
 - Hold resource roundtables during Fall 2015 inviting scientists and coastal decision-makers to discuss collaborative strategies and ways to leverage resources to collaboratively develop the most effective outreach tools and resources. Roundtable discussions will focus on shared challenges and opportunities. The roundtables offer a tiered approach to disseminating tools and fostering shared coastal adaptation work—by providing resources to the state/provincial/regional representatives who have closest ties to local communities. Invitees will include provincial representatives from New Brunswick and Nova Scotia;

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National Estuary Program staff; National Estuarine Research Reserve staff; state and provincial geologists and climatologists; statewide associations of land trusts and conservation commissions; Sea Grant staff; state/provincial associations of public works directors; state/provincial and county emergency management and transportation agency staff; and representatives of natural resource-based trade associations (*e.g.*, farming, forestry, fishing). Resource sessions will be videotaped and posted online for the benefit of those who cannot attend. (There is a \$35,000 grant pending to fund this element.)

Projected Timeframe: 2014-2015

Projected Budget: \$150,000

3. Provide municipalities with adequate socio-economic data and valuation tools for making sound climate adaptation choices. To generate these, the Climate Network would form a Regional Advisory Group of environmental economists and planners to help identify the greatest municipal needs concerning the costs/benefits/tradeoffs of adaptation measures, and formulate research proposals that would generate useful tools and case studies for municipal decision-makers. A grant is pending for a New Brunswick-based economist to summarize existing research primarily drawn from studies along the Atlantic US and Canadian coast. Once research needs are identified, the Climate Network will seek grant funding for new socio-economic research. Upon completion of that research, the Network will help disseminate study findings and generate a guide summarizing the economics of adaptation for municipalities around the Gulf of Maine region.
Projected Timeframe: 2014-2017
Projected Budget: \$250,000 (\$31,000 grant pending for initial elements)
4. Expand the web-based resources available to help regional municipalities with climate preparedness through additions to the Climate Network Web Page and collaboration with StormSmartCoasts.org.
 - Expand the Climate Network web page community toolkit to include regional and national resources in the following categories: model visualizations/interactive maps; vulnerability assessment guidance; adaptation planning; climate adaptation research (linking to NOAA's NExUS database); economics of adaptation; and municipal guidance on taking adaptation actions. The Climate Network will create new training videos and webinars directed toward municipal audiences.
 - Create a "Climate Community of Practice" within the Gulf of Maine region working in conjunction with StormSmartCoasts.org—to ensure that residents throughout the Gulf of Maine watershed have ready access to storm hazards information and preparedness measures. This project would involve expanding the geographic scope and content of the current StormSmartCoasts.org site (which provides information for Massachusetts and New Hampshire) to include Maine, New Brunswick and Nova Scotia. Partners would include state and provincial emergency management organizations, municipal associations, state and provincial agency staff, Environment Canada, and existing StormSmart Coasts partners (NOAA, NROC, and USEPA).
Projected Timeframe: 2014-2016
Projected Budget: \$100,000 (\$61,000 grant pending for the first element)
5. Offer municipal grants (in cooperation with partners such as conservation commissions, land trusts, watershed associations, public works departments, and regional districts or service commissions) to help communities pioneer use of low-cost, ecosystem-based climate adaptation measures that are easily replicable. NROC's Coastal Hazards Resilience Committee, which has administered past local grant programs in partnership with the GOMC, could potentially be a partner in this initiative. The experiences of these pilot communities in jumpstarting adaptation actions will be summarized and shared through the Climate Network's online Community Toolkit and on related sites.
Projected Timeframe: 2015-2018
Projected Budget: \$160,000 (\$80,000 grant pending for first two years)

Total Budget of Priority Projects in Need of Funding: \$745,000