

**Project: Strengthening Adaptive Capacity of Marine Protected Areas**

**1. Two-year budget: C\$350,000**

**2. Short statement on the need identified (including current status), the project objective and the outcomes (achievable by June 2019) to address it:**

Marine Protected Areas (MPAs) are key tools for fostering ocean health, but need to be effectively and adaptively managed to help respond to threats such as ocean warming, species' shifts, and ocean acidification. Building on the OP 2015–2016 project focused on identifying vulnerabilities in coastal ecosystems and communities, using pilot MPAs (Pacific Rim, El Vizcaino, Isla Guadalupe, Channel Islands and Olympic Coast), this project will develop a coastal adaptation toolkit applicable to any MPA, based on input from the same pilot MPAs and a broad set of experts. It will address a key need of MPA practitioners for practical guidance and hands-on training in developing adaptation strategies in response to identified vulnerabilities and integrating them into management plans. It will develop MPA capacity for adaptation planning through the toolkit; training in its use for MPA practitioners; identifying trilateral expert teams (scientists, MPA practitioners, Indigenous and local people, stakeholders) to advise on priority topics; and identifying actions across shared seascapes to support implementation of management strategies. Implementing adaptation strategies will help MPAs control the local impacts of global and regional changes and promote healthier, more resilient marine ecosystems.

**3. Explain how the project can achieve more impact by working trilaterally, and why the CEC is the most effective vehicle to undertake this work:**

The CEC has a unique role in providing the framework to gather and share knowledge concerning MPA adaptation strategies across the network of North American MPAs; building on previous projects and collaborations (e.g., Channel Islands/Isla Guadalupe, Coastal British Columbia/Olympic Coast) to support strategy implementation. The marine environment is inherently connected, and effective management of marine species requires cooperation across international boundaries. Climate impacts have increased this need for collaboration, as they affect the distribution and movement of species and habitats. Moreover, as information on coastal adaptation strategies is not readily available, there is an urgent need to pool and build our knowledge together to effectively manage our changing MPAs and minimize negative impacts to local communities.

**4. Describe how the project may capitalize on, or advance, the relationship between ecosystems, job creation, gender impacts, and income generation:**

Coastal ecosystems and communities are among those most affected by climate change, and require proactive planning to minimize negative impacts of change. Adaptation planning can help to build resilience of marine/coastal ecosystems, helping maintain the economic activities and uses that depend on the marine ecosystem (e.g., marine ecotourism, natural infrastructure), and contributes to the social, cultural and economic well-being of coastal communities. The results of the project will be shared with coastal indigenous and local communities across the three countries, so that they are aware of practices related to coastal habitat restoration, management of ocean acidification impacts, species' movements, and invasive species and can engage in discussing and prioritizing these issues in terms of their ecological, social and economic impacts.

**5. Describe how the project complements or avoids duplication with other national or international work:**

This work builds on previous work by the CEC, published in *Scientific Guidelines for Designing Resilient Marine Protected Area Networks in a Changing Climate* (CEC 2012), and on the Rapid Vulnerability Assessment Tool developed and applied during the 2015–2017 project period. This was the first rapid vulnerability assessment tool developed and applied for marine protected areas in the three countries. The three countries have begun to identify vulnerabilities at their MPAs but are still in the early stages of identifying and applying adaptation options for MPAs. The toolkit will compile existing guidance on coastal and marine adaptation in the three countries and fill gaps through the scientific literature and interviews with MPA practitioners. Training at the pilot sites will build capacity to manage shared resources in a changing climate and provide opportunities for expanded managerial collaboration among the network of North American MPAs. Coastal and marine adaptation strategies are also a significant priority and gap for MPAs globally and there is potential for this project to make a major contribution at the international scale. The CEC's earlier work on scientific guidelines for MPA networks has already made an important contribution to dialogue on MPA networks in the Arctic and other regions. Disseminating the work of this project to international audiences will continue to make the North American MPA network part of this conversation. The project will also build in long-term sustainability as MPA agencies incorporate the identified adaptation strategies into their MPA management plans, which will guide long-term (~10-year) management of these areas.

**6. Describe opportunities for inclusion of traditional ecological knowledge (TEK), if applicable, and how these opportunities are incorporated into the project:**

Indigenous people have inhabited coastal areas in North America for thousands of years and have a long history of adapting to changes in the marine and coastal environment. Building on existing structures, mechanisms and processes where applicable, this project will engage local and Indigenous communities in a participatory relationship to gather and synthesize knowledge on adaptation options for MPA management, involving these communities in the process from the first scoping exercise through to distribution of the final product. Where applicable, it will coordinate with Indigenous and local community authorities. The project also provides an opportunity for collaboration among Indigenous peoples involved in coastal management and adaptation across the three countries.

**7. Describe opportunities for youth engagement, if applicable, and how these opportunities are incorporated into the project:**

Youth are key stakeholders in MPA management, and are the focus of many education and citizen-science efforts at MPAs. The project would identify opportunities for youth engagement in adaptation strategies, including through volunteer work and community engagement. Organizations working with youth would be invited to participate in the project scoping exercise, the stakeholder workshop and training.

**8. List significant involvement of other levels of government, Indigenous groups, local communities, experts, private sector, civil society and others, as applicable:**

The three countries have laws, practices and cultures of strong stakeholder engagement in MPA management—including government agencies at all levels, scientists, ocean users, local communities, Indigenous peoples and others who care about our oceans. This project would continue that approach by involving a diverse group of stakeholders in project scoping, development and review of the Coastal Adaptation Toolkit, and in identifying opportunities for collaboration in implementing adaptation strategies. Many such stakeholder groups have already been engaged in the rapid vulnerability assessment process completed during the 2015–2017 project period, and are eager to participate in next steps (e.g., local business owners involved in ecotourism, MPA citizen advisory councils, Indigenous governments and organizations, universities and nongovernmental organizations).

**9. Identify relevant committee members and their federal agencies in each country committed to developing this project, and implementing it, if approved:**

Canada: Chantal Vis, Marine ecosystem specialist, Parks Canada, [chantal.vis@pc.gc.ca](mailto:chantal.vis@pc.gc.ca),  
Marlow Pellatt, Ecological restoration specialist, Parks Canada, [marlow.pellatt@pc.gc.ca](mailto:marlow.pellatt@pc.gc.ca)

Mexico: Fernando Camacho Rico, *Comisión Nacional de Áreas Naturales Protegidas*, [fernando.camacho@conanp.gob.mx](mailto:fernando.camacho@conanp.gob.mx)  
Pilar Jacobo Enciso, *Comisión Nacional de Áreas Naturales Protegidas*, [pilar.jacobo@conanp.gob.mx](mailto:pilar.jacobo@conanp.gob.mx)

United States: Lauren Wenzel, Director, National Marine Protected Areas Center, [lauren.wenzel@noaa.gov](mailto:lauren.wenzel@noaa.gov).

**10. List the objectives and activities to be conducted to achieve measurable results:**

Objectives	Main activities to achieve objectives	Measurable results
By 30 June 2019, communities and MPA practitioners have access to practical guidance to better address coastal vulnerabilities	<b>Activity 1</b> Develop a coastal impact mitigation and adaptation toolkit	A coastal impact mitigation and adaptation toolkit developed with stakeholders and experts is available to coastal MPA practitioners and communities in the three countries to offer guidance on mitigating the impacts of and adapting to climate change
By 30 June 2019, impact mitigation and adaptation management strategies can be integrated into MPA management planning and projects in the three countries.	<b>Activity 2</b> Build capacity to develop and apply impact mitigation and adaptation strategies based on the toolkit	MPA practitioners and their partners have been trained on the use of the toolkit to develop and apply coastal impact mitigation and adaptation strategies
By 30 June 2019, collaboration across MPAs is in place through memorandums of understanding (MOU), action plans or informal partnerships	<b>Activity 3</b> Develop collaborative partnerships in the shared seascapes to address priority issues related to impact mitigation, adaptation and management effectiveness (e.g., shared monitoring protocols; international adaptation plans for shared species, such as whales; approaches for evaluating actions)	MPA practitioners and their partners have entered into collaborative partnerships that allow them to coordinate coastal impact mitigation and adaptation actions according to their shared priorities

\*Note: The United States and Mexico have a formal partnership on MPAs through MOUs for sister sites in the Gulf of Mexico, and Canada and the United States have a formal partnership on MPAs through the Arctic Council. The United States, Canada and Mexico also have ongoing informal MPA collaborations in many areas that will be expanded.