

PROJECT PROPOSAL

1. Project name: Building Community Capacity to Reduce Marine Litter in North American Border Watersheds

2. Two-year budget: C\$700,000

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

Marine litter is a global problem that affects economies, coastal environments, ecosystems and human health. This project aims to address the lack of a trilateral, intergovernmental coordination to effectively prevent and reduce land-based sources of litter from entering the marine environment through a community-driven, stakeholder-based approach. To achieve this, the project will work with local stakeholders, including youth and indigenous communities, to:

- 1) describe the marine litter issue at pilot sites within shared-border watersheds;
- 2) identify/implement feasible solutions to address local challenges;
- 3) communicate results and provide recommendations to decision makers.

Through a stakeholder-based approach at the selected pilot shared-border watershed sites, the project will help improve the local assessment, decision-making and networking processes for the implementation and monitoring of local initiatives. The approach using a trash-free waters framework will be adapted to local and national circumstances. The aim is to build capacity through awareness and engagement, via a coordinated multi-jurisdictional approach, to develop lasting solutions for local stakeholders and their communities.

4. Select the strategic priority(ies) that the project addresses:

2015–2020 Strategic Priorities	Priority Areas
<input type="checkbox"/> Climate Change Mitigation and Adaptation	<input type="checkbox"/> Trade and the Environment (e.g., environment and innovations; movement of environmental goods and services)
<input type="checkbox"/> Green Growth	<input type="checkbox"/> Methane emissions reduction
<input checked="" type="checkbox"/> Sustainable Communities and Ecosystems	<input type="checkbox"/> Reduce and recover food waste
	<input type="checkbox"/> Black carbon inventory
	<input type="checkbox"/> Priority species and ecosystems (e.g., transboundary invasive alien species)
	<input checked="" type="checkbox"/> Health of oceans (e.g., marine litter; ocean acidification; marine protected areas)
	<input type="checkbox"/> Syndromic surveillance systems
	<input type="checkbox"/> Mexican Emissions Control Area (ECA)
	<input type="checkbox"/> TEK case studies

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

Marine litter in border waterways is a transboundary issue involving many governments and diverse stakeholders that can benefit from improved coordination and action. This project contributes to the CEC strategic plan to: support the establishment of collaborative networks, with youth and indigenous communities, so as to share knowledge and experience; undertake conservation efforts to protect and restore ecosystems; identify beneficial practices; and increase awareness, engagement and capacity in communities. The CEC is an effective vehicle to undertake this work because there is not an existing intergovernmental mechanism to address marine litter from a continental perspective and the movement of trash between the member countries and their common waterways. This problem affects shared waterways, but also has broader impacts on the world's ocean economy, fisheries, maritime transport, human health and the environment. In 2010, the United States, Canada, and Mexico together contributed about 384,726 tons of land-based plastic waste into the world's oceans; this statistic makes North America a significant contributor of land-based marine debris, and left unchecked, this amount is estimated to increase exponentially in the near future (Jambeck et al. 2015).

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

Marine litter is the result of human activities through the direct or indirect deposit of waste in the aquatic environment. This upsets the sensitive balance of ocean and coastal ecosystems, which threatens livelihoods by directly affecting fishing industries, tourism, national economies, and trade. This project heightens awareness about the relationship between land-based activities and the environment. This proposed work also identifies applicable and relevant low-cost, low-tech solutions to reduce and prevent marine litter, which in turn could provide opportunities to: improve local waste management; lessen impacts related to tourism (aesthetics) and to livelihoods and trade dependent on fishing; and improve ocean/coastal ecosystems.

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

Objectives (must be SMART¹)	Main activities to achieve objectives (by 30 June 2019)	Measurable results
By 30 June 2019, understand the status of marine litter at selected pilot sites in at least two shared watersheds, for use as a basis for identifying local solutions.	Conduct a study at each site to identify main sources of marine litter.	The lists of key sources of marine litter in the selected pilot sites are available.

¹ SMART: Specific, measurable, achievable, realistic and time-bound.

<p>By 30 June 2019, local citizens are aware of local marine litter issues through community networks at selected pilot sites. These networks will include a citizen science component for the collection of marine litter data and will involve, where applicable, Indigenous communities and youth. This will inform the description of the marine litter issue and the development of low-tech, low-cost solutions.</p>	<ul style="list-style-type: none"> • Identify relevant stakeholders, including youth groups and indigenous communities, to establish a network. • Establish a simple common method for data collection among all of the identified communities. • Implement the method and collect data by training and mobilizing citizen scientists. 	<p>A network of citizens at each pilot site is engaged in marine litter prevention/reduction.</p>
<p>By 30 June 2019, communities have the capacity and the tools to develop community-based marine litter reduction and prevention solutions.</p>	<p>In each pilot site:</p> <ul style="list-style-type: none"> • Convene stakeholder meetings to prioritize actions that reduce marine litter. • Identify feasible/practical implementation solutions. • Develop implementation strategies informed by stakeholder collaborations. • Identify measures to gauge success. 	<p>An implementation strategy for community-based marine litter prevention/reduction is available for each of the pilot sites, which benefits local stakeholders and their communities.</p>
<p>By 30 June 2019, selected pilot communities have a tested, documented process for implementing community-based marine litter prevention and reduction solutions that is shared with decision makers. Raising public awareness of community-based solutions to marine litter will be accomplished through outreach material distributed at North American aquariums or similar organizations.</p>	<ul style="list-style-type: none"> • Implement the solutions through sustained collaboration with relevant stakeholders. • Summarize the process and project, identifying lessons learned, challenges, and successes, to improve the approach. • Identify and share recommendations with decision makers. • Produce outreach material, e.g., short videos, installations, etc., to raise public awareness of community-based solutions for preventing or reducing marine litter, similar to past efforts undertaken by the CEC MPAs network project. 	<p>A guide to implementing community-based marine litter prevention/reduction, including the approach taken, solutions, best practices, performance metrics and recommendations, is available to decision makers and provides a transferable approach that can be taken up by other communities. Outreach material targeting the public will be distributed through the network of North American aquariums or similar organizations.</p>

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

This proposed project is complementary to the work undertaken by local, regional, national and international efforts to address this transboundary issue. These activities, at best, operate piecemeal across the countries and this project provides an opportunity for a coordinated effort in North America that will improve comparability of sites and the adoption of a standard approach that can be taken up by others. This project is the first North American project that uses a transferable and standard community-based approach to address marine litter in border watersheds.

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

This project has a citizen-science characterization component that could include the sharing of TEK by indigenous communities in the specified watersheds. Specifically, TEK could inform a greater understanding of watershed characteristics (e.g., water flows, flora/fauna, history of pollution, etc.) that are fundamental to implementing solutions to the marine litter problem.

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

This project has a citizen-science component that includes youth (e.g., schools, Scouts, environmental clubs, etc.) in the specified watersheds. Youth will be trained as citizen scientists, to collect marine litter data that will inform the project process and ultimate implementation activities. This project recognizes that youth are excellent ambassadors for the environment and a fitting demographic to advocate for upstream source reduction and a shift from "throw-away" to "reduce/reuse" cultures. Effective youth engagement both generates creativity and inspires communities. Youth will be involved throughout the entire project and as a result, will gain awareness of the issue and become empowered to address local and shared border challenges.

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

In addition to a trilateral approach, this project will involve at least two shared watersheds (e.g., Salish Sea, Gulf of California/Tijuana River Watershed, Rio Grande/Río Bravo Watershed/Gulf of Mexico, St. Lawrence River/Great Lakes Watershed) that involve multiple stakeholders, such as local and state/provincial governments (Semarnat, USEPA, ECC Canada), indigenous groups, local communities, local and national experts, NGOs, public institutions, members of the public, and the private sector. The success and sustainability of this project depends upon the active coordination among these stakeholders to identify and implement relevant marine litter solutions, as well as to provide recommendations to decision makers.

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

Canada: Sarah Da Silva, Jacinthe Séguin—Environment and Climate Change Canada

Mexico: Lina Laura Correa, Salomón Díaz Mondragón—Semarnat

United States: Andrew Horan, Janice Sims, Bob Benson, Margaret McCauley—US Environmental Protection Agency