



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
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Office of  
International and  
Tribal Affairs

Mr. Gustavo Alanís Ortega  
JPAC Chair  
Commission for Environmental Cooperation  
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Montreal QC H2Y 1N9

Dear Mr. Alanís:

On behalf of the Council, I would like to thank the Joint Public Advisory Committee (JPAC) of the Commission for Environmental Cooperation (CEC) for its Advice to Council Number 14-03: Regarding Results and Recommendations from the JPAC Public Workshop held 6 – 7 November 2014 in Arlington, Virginia, on “North America’s Coasts in a Changing Climate.”

We would like to commend the JPAC for conducting a workshop that gathered a range of North America’s blue carbon experts for a robust examination of the importance of our coastal communities and ecosystems. The expert presentations and the public discussion on blue carbon sequestration, sea-level rise, and ocean acidification were valuable for their broad geographic scope and high relevance to policy-makers, scientific researchers and advisors, as well as the coastal communities affected by a changing climate. We appreciate the detailed and thorough observations and recommendations submitted by the JPAC and the appendices that provide the summaries and recommendations of the presenters and the workshop participants. We will share all of these suggestions with the CEC Blue Carbon Working Group and respond as appropriate to the observations and recommendations.

***Recommendation/Observation 1: Scientific research has demonstrated that carbon sequestration and storage is vast and vitally important within coastal wetlands: they sequester carbon at a rate estimated to be two to four times greater than in mature tropical forests and store three to five times more per equivalent area than tropical forests. The CEC has made important contributions to the development and dissemination of this research through its Blue Carbon project, which has been commended by scientists and experts working in this important field. The CEC has a unique ability to convoke relevant decision-makers, experts, and constituents throughout the region. It can thus facilitate regional collaboration and coordination, as well as a broader dissemination of knowledge to the public of the importance of coastal wetlands in the mitigation of climate change impacts through carbon sequestration and storage. JPAC recommends that Council continue to make the Blue Carbon project a high priority and requests that Council, the Alternate Representatives, and their staffs seriously consider the findings and recommendations that emerged from the Arlington Workshop.***

COUNCIL RESPONSE:

During the Yellowknife Council Session in July 2014, The Council committed to blue carbon as a focus area under the new 2015-2020 Strategic Plan and aim to include blue carbon projects in the CEC's 2015-16 Operational Plan. We will **consider the findings and recommendations that emerged from the Arlington Workshop and will** continue to align our efforts through the CEC to augment collaboration among science, policy, and community level actors working to protect and preserve coastal communities.

*Recommendation/Observation 2: Among the findings and recommendations that emerged from the Arlington Workshop, JPAC believes the following warrant particular attention from the Council:*

- a. *There is a need to collaborate jointly in the further development of valid, reliable, and standardized methodologies to more accurately quantify carbon sequestration and storage, which are appropriate to the unique geochemical features of the coastal wetland ecosystems of North America.*

COUNCIL RESPONSE:

We agree with JPAC's recommendation and note that through the current CEC Blue Carbon project, a trilateral group of experts are conducting workshops across North America to develop methodologies and protocols to measure coastal blue carbon sequestration, storage, and emissions values, and standardizing mapping to derive improved coverage of blue carbon coastal habitats. Further, the Blue Carbon Working Group is convening with the forest carbon and land cover mapping group to identify models, tools, and information to inform blue carbon science.

- b. *Scientific collaboration, data sharing, and networking among scientific communities and the public in all three countries will save time and money and lead to better results. The CEC should support projects and methodologies that facilitate information sharing on:*
  - *Changes in coastal wetlands*
  - *The economic and social value of mitigating storm impacts on coastal wetlands*
  - *Nutrient loads from upland sources*
  - *Impacts of acidification on species and ecosystems*
  - *Restoration practices*

COUNCIL RESPONSE:

The current and proposed activities through the CEC Blue Carbon project address some of these issues, including measuring changes to coastal wetlands and sharing restoration practices. While much of the project work has been defined, we will look for opportunities to support work that examines the value of mitigating storm impacts, impacts of acidification on species and ecosystems, as well as researching nutrient loads from upland sources.

- c. The Verified Carbon Storage methodology in review is focused only on carbon credits for wetland restoration and there is no accepted methodology for wetland conservation. Accordingly, in order to protect the health of ecosystems, the CEC should support efforts to establish methodologies that will verify carbon credits for emissions avoided through wetland conservation.*

COUNCIL RESPONSE:

We are pleased that the *1st Greenhouse Gas Methodology for Tidal Wetland and Seagrass Restoration* has been submitted to Verified Carbon Standard for review. This methodology allows connections from coastal restoration efforts with carbon finance and will pave the way for increased wetland restoration efforts. We agree that conservation is an important element of restoration efforts and our proposed project work in 2015-16 on blue carbon currently includes supporting the development of conservation methodology that, once verified, will be an accepted reference for securing credits under a Voluntary Carbon Standard for wetland protection.

- d. There is a need for greater focus on upland influences on coastal wetlands, including researching and developing methodologies to account for carbon as it passes from upland to coastal systems. There is also a need for greater focus on upland, freshwater wetlands in their own right because carbon capture and storage are also occurring in freshwater wetlands at high rates that greatly exceed those of other terrestrial systems. The CEC should extend its Blue Carbon work in the near future to address impacts of upland aquatic ecosystems and the conservation of those systems.*

COUNCIL RESPONSE:

Through strong collaboration among the CEC projects on forest carbon, land mapping, and blue carbon, we are working toward a more complete understanding of the influences on coastal wetlands. This month, the CEC will convene experts from each of these three project areas to discuss: 1) the effects of dissolved carbon that flows from the terrestrial ecosystem to blue carbon systems, 2) how land cover change products support the mapping and assessment of mangroves, shorelines, estuaries, and near-shore systems that play important roles in the dynamics of blue carbon systems, and how recent work on mapping and modelling disturbances has influenced the outcome of forest carbon model; and, 3) how to develop a framework to include information on natural disturbances, land use, and land-use change in watersheds that are feeding into aquatic systems to provide first order estimates of associated input of dissolved organic carbon and pollutants including nitrogen and phosphorus. We will continue to support integrated approaches and look for opportunities to support research on the impacts of upland aquatic systems and their restoration and conservation.

- e. *Many environmental policies in all three countries could better account for blue carbon capture and storage. For example, environmental impact assessment protocols in all three countries should include an assessment of blue carbon impacts. The CEC should prioritize efforts to review legal and regulatory frameworks so that the Parties can strengthen and harmonize their regulatory approaches to blue carbon, where appropriate.*

COUNCIL RESPONSE:

Better alignment of policies and practices among our three countries remains an important objective and we will continue to look for opportunities to move in that direction. We will continue to count on the JPAC and the CEC Secretariat to support the Parties in taking steps towards greater knowledge sharing.

- f. *Land-use decisions in all three countries are often made or overseen by subnational and local governments and this complicates efforts to promote best practices for coastal wetlands management, as well as efforts to strengthen and harmonize regulations where appropriate. For this reason, it will be important to prioritize efforts in the near future to study local rules and practices and engage local decision-makers in the CEC's ongoing Blue Carbon program, where feasible.*

COUNCIL RESPONSE:

Through the CEC, we will continue to seek ways to include subnational and local government's perspectives in promoting best practices for coastal wetland management. With each community the CEC works with to measure blue carbon or map seagrass, we will explore best practices and policies that can be shared and applied more broadly. We will also look to our advisory committees the JPAC and our respective national and government advisory committees to foster stronger engagement and outreach with subnational and local governments.

- g. *In its Blue Carbon project, the CEC should continue to give priority to training and educating relevant constituencies in the importance of restoring and conserving those coastal wetlands through outreach, community engagement, and media strategies. This includes directing more NAPECA funding toward pilot projects on climate, carbon, and water education. It should also include creating partnerships with corporate entities at all levels and engaging the insurance, construction (infrastructure), consumer, and other private actors.*

COUNCIL RESPONSE:

We agree that the CEC should continue to give priority to training and educating relevant constituencies in the importance of restoring and conserving those coastal wetlands through outreach, community engagement, and media strategies. Through the Blue Carbon Community of Practice, we will share our collective expertise and results and make sure that progress is made in each of our countries to expand blue carbon efforts across North America as part of that commitment. For example, the current group of NAPECA grants includes a blue carbon project grantee in Canada; and we will continue to seek opportunities to fund NAPECA projects that address Council priorities.

- h. Engaging local communities in meaningful ways around conservation and restoration projects is an essential component of the success of such projects. This can include calculating and communicating the benefits of healthy coastal and upland wetlands in climate change mitigation and adaptation as well as other critical ecosystem services.*

**COUNCIL RESPONSE:**

Engaging local communities is critical to the success of the CEC's work, especially for coastal communities whose lives and livelihoods are tied to the health of the ecosystems. Through blue carbon and sea grass measuring and mapping efforts along North America's coasts, the CEC has sought to engage local communities by sharing information on impacts and restoration, as well as by promoting best practices. The current and planned blue carbon efforts of the CEC include specific activities, such as workshops, community-level projects, and products shared through the Blue Carbon Community of Practice.

- i. There is a strong need to raise awareness about the importance of blue carbon capture and storage, and coastal wetland conservation more generally, as these topics relate to the economic and cultural livelihood of vulnerable coastal communities. The ability of these communities to continue to inhabit the coastlines in all three countries is threatened by the effects of climate change, and coastal communities are thus key stakeholders in the CEC's ongoing work relating to blue carbon.*

**COUNCIL RESPONSE:**

Coastal communities have the most at stake when it comes to conserving and restoring their communal habitats, we will continue to support programs related to blue carbon, marine protected areas, and other programs that address the impacts of climate change. We will encourage the Blue Carbon Working Group to continue to develop materials, toolkits, and guidance for vulnerable communities and to explore creative opportunities for outreach. A good example of this can be found in the North American Blue Carbon Photo Essay produced by the CEC and the Blue Carbon Working Group in 2014. This multi-media introduction to the importance blue carbon capture and storage provides powerful graphics, vivid imagery, and compelling cases of communities working to address changes to coastal wetlands across North America. We will ensure adequate diffusion of this material through the CEC.

- j. Indigenous communities in coastal areas will be among the most vulnerable to climate impacts on coastal wetlands because of their distinctive connection with nature and with coastal ecosystems. Efforts should be made to develop greater understanding of this connection and better understand and integrate indigenous knowledge of conservation practices and the potential for climate change mitigation and adaptation. Treaties with indigenous peoples should also be reviewed to glean insights that might support mitigation and adaptation in indigenous communities.*

COUNCIL RESPONSE:

We recognize that indigenous communities are among the most vulnerable to climate change impacts because of their intrinsic connection with nature and the cultural significance of living from the land. The Council is considering two new projects under the 2015-16 Operational Plan that focus on 1) expanding the Local Environmental Observer network in indigenous communities across North America; and 2) using ecosystem function and Traditional Ecological Knowledge (TEK) together to build resilience and adapt to climate change in North America. In addition, Council is exploring other ways to incorporate TEK into our cooperative work to be announced at the Council Session in July 2015, and will seek further opportunities to fund NAPECA projects that support climate change mitigation and adaptation among indigenous communities.

We appreciate the time and dedication that went into preparing this advice and we are grateful for the important contributions the JPAC makes to the development and dissemination of the CEC's cooperative agenda.

Sincerely,



Jane Nishida  
Alternate Representative for the United States

cc: Ms. Louise Métivier, Alternative Representative for Canada  
Enrique Lendo, Alternative Representative for Mexico  
Irasema Coronado, CEC Executive Director  
Marcela Orozco, JPAC Liaison Officer